

Sustainability report

~~~~~ 2017

Grupo·epm<sup>®</sup>



Our  
Group



Grupo·epm<sup>®</sup>



# About Us

## Our group

### Our businesses

Grupo **epm**



**Jobs  
Grupo EPM**

13,255

6 countries  
7 businesses  
51 companies



Power generation



Power transmission



Power distribution



Solid waste management



Institutional



Natural gas



Natural gas



Water supply

### Some management indicators



**Environmental  
management index**

86%



**Grupo EPM's  
CSR evolution**

73%

# Operations in Latin America



Guatemala

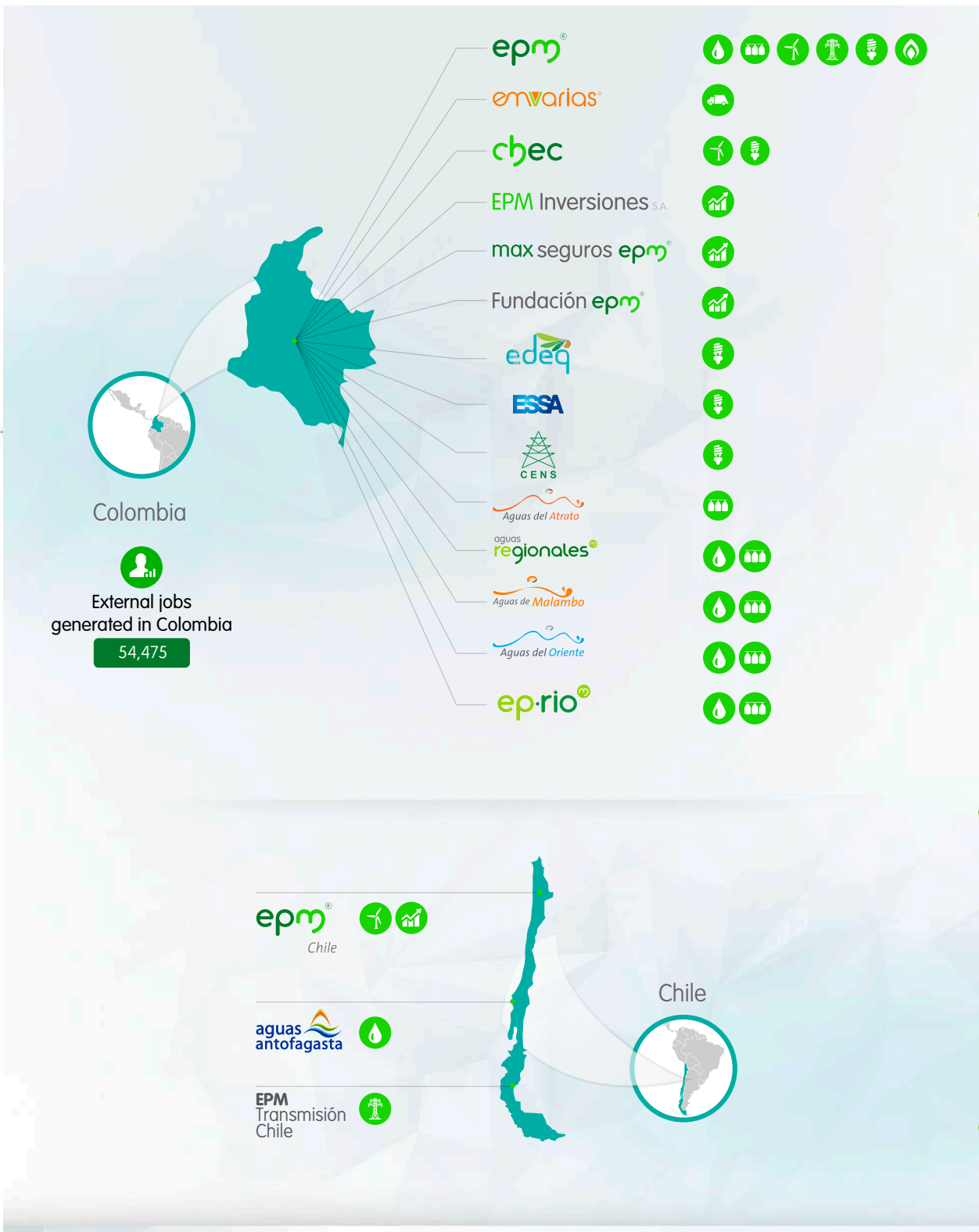


El Salvador



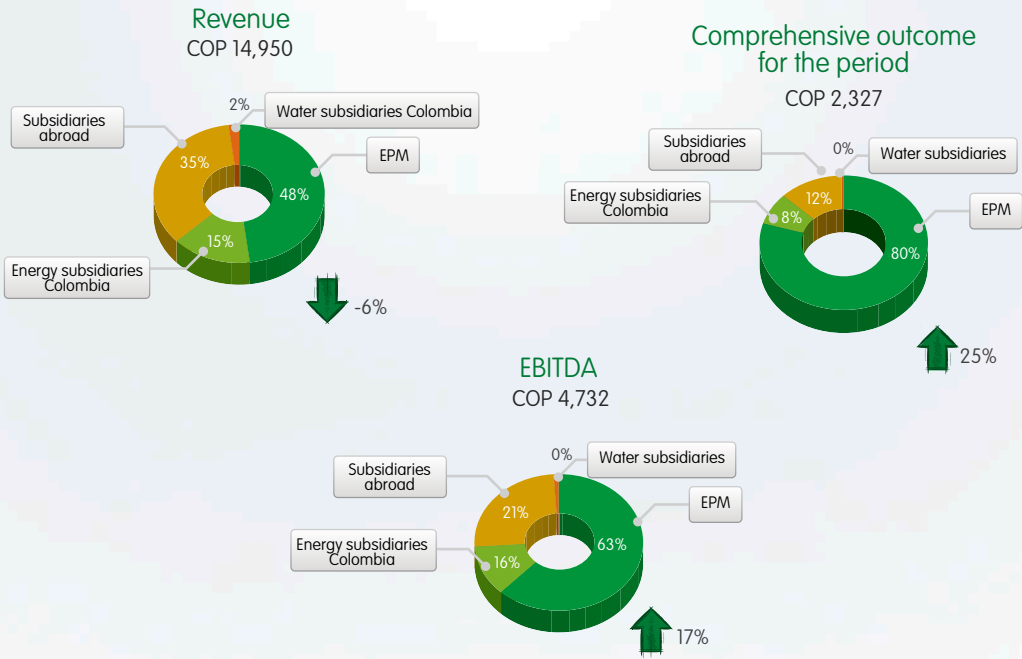
Panama





# Grupo EPM's financial results

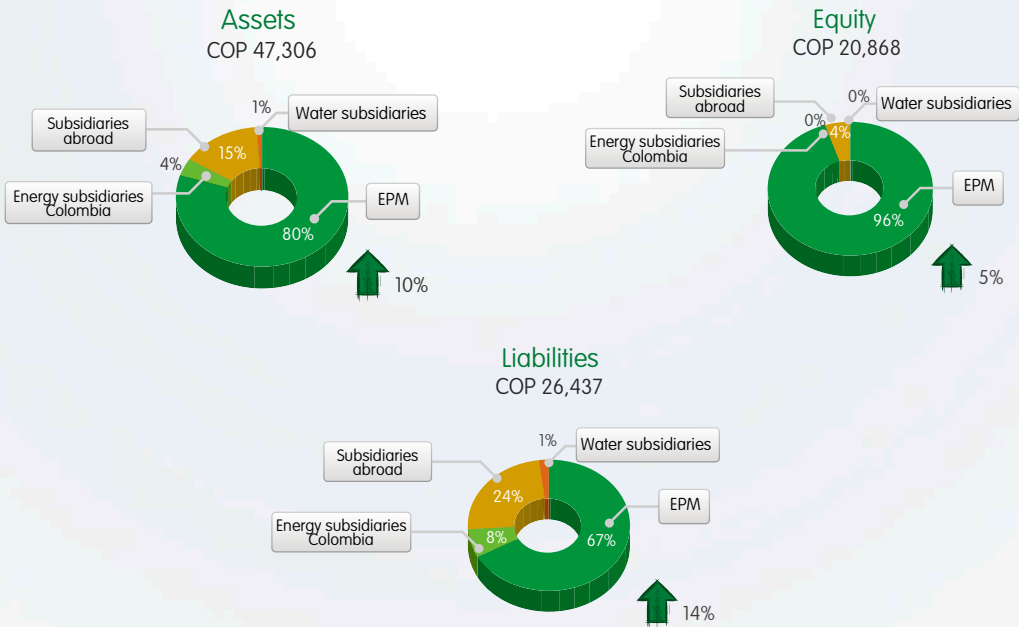
Figures in billion COP



↑ Variation compared to the previous year

# Grupo EPM's statement of financial position

Figures in billion COP



↑ Variation compared to the previous year

# Electrical energy

## Grupo EPM's power generation efficiency indicators

EPM ESSA CHEC HET



### Thermal energy efficiency

|                                              |        |        |
|----------------------------------------------|--------|--------|
| Actual availability / Projected availability | 73.60% | 101.3% |
| Energy penalized / Energy generated          | 1.90%  | 0.60%  |



### Hydraulic energy efficiency

|                                              |        |        |        |      |
|----------------------------------------------|--------|--------|--------|------|
| Actual availability / Projected availability | 92.70% | 96.20% | 91.80% | 104% |
| Energy penalized / Energy generated          | 0.06%  |        |        |      |

Source: Vice Presidency of Power Generation



## Power generation mix

| Type of source          | Power plants                 |           | Net production (GWh) |               | Installed capacity (MW) |              |                 |              |       |
|-------------------------|------------------------------|-----------|----------------------|---------------|-------------------------|--------------|-----------------|--------------|-------|
|                         | 2017                         |           | 2017                 |               | 2017                    |              | 2020 projection |              |       |
| <b>Wind energy</b>      | 2                            | 1         | 234                  | 3             | 128                     | 18           | 128             | 18           |       |
| <b>Thermal energy</b>   | 2                            | 1         | 17                   | 15            | 496                     | 445          | 496             | 445          |       |
| <b>Hydraulic energy</b> | Less than 10 MW              | 17        | 12                   | 117           | 78                      | 31           | 22              | 4,266        | 4,027 |
|                         | Between 10 and 20 MW         | 8         | 6                    | 725           | 530                     | 140          | 106             |              |       |
|                         | More than 20 MW              | 9         | 6                    | 14,577        | 13,932                  | 2,887        | 2,690           |              |       |
|                         | Total hydraulic power plants | 34        | 24                   | 15,419        | 14,541                  | 3,057        | 2,818           |              |       |
| <b>Total</b>            | <b>38</b>                    | <b>26</b> | <b>15,670</b>        | <b>14,559</b> | <b>3,681</b>            | <b>3,282</b> | <b>4,890</b>    | <b>4,490</b> |       |

*Grupo EPM generated 6 GWh from natural gas and 11 GWh from liquid fuel.  
EPM generated 5 GWh from natural gas and 10 GWh from liquid fuel.*

Grupo EPM EPM

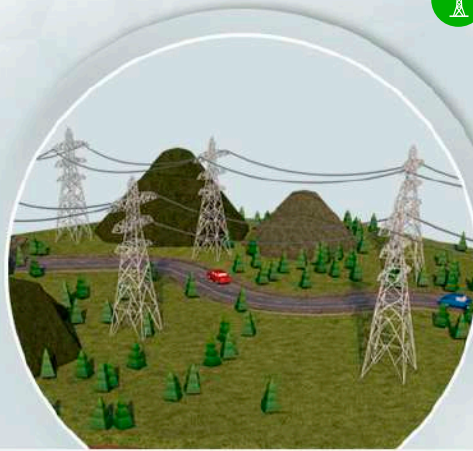
## Installed capacity for power transmission and distribution 2017

Grupo EPM EPM

### Electrical energy service coverage

**Service coverage Colombia**  
 4,305,826 Total clientes  
 98.87% Cobertura del servicio (%)

**Service coverage Other countries**  
 2,061,926 Total customers  
 94.17% Service coverage (%)



**Power transmission and distribution networks (km)**

238,294 90,881

**Power distribution and transmission transformers**

338,985 136,285

**Total transformation capacity in substations (MVA)**

16,283 7,931

Source: Vice Presidency of Power Transmission and Distribution

## Detailed electrical energy service coverage per company

**Service coverage Colombia**

**epm** Total customers 2,368,457  
 Service Coverage (%) 97.07%



Total customers 497,733  
 Service Coverage (%) 96.70%

**chec** Total customers 475,985  
 Service Coverage (%) 99.18%



Total customers 779,330  
 Service Coverage (%) 97.35%

**edeq** Total customers 184,321  
 Service Coverage (%) 98.40%

**Service coverage Other countries**



Total customers 387,761  
 Service Coverage (%) 87.00%



Total customers 449,571  
 Service Coverage (%) 96.30%



Total customers 1,224,594  
 Service Coverage (%) 99.20%

# Water supply and sanitation

## Indicators of installed capacity for water supply Grupo EPM 2017

Grupo EPM EPM



### Installed capacity

|                                                           |       |       |
|-----------------------------------------------------------|-------|-------|
| Drinking water treatment plants                           | 34    | 12    |
| Capacity for drinking water treatment (m <sup>3</sup> /s) | 20.59 | 16.45 |

### Water distribution

|                                      |       |       |
|--------------------------------------|-------|-------|
| Primary distribution networks (km)   | 530   | 283   |
| Secondary distribution networks (km) | 5,498 | 3,583 |

### Net production of drinking water (m<sup>3</sup>/s)

|     |     |
|-----|-----|
| 369 | 282 |
|-----|-----|

## Indicators of installed capacity for sanitation service Grupo EPM 2017

Grupo EPM EPM

### Installed capacity

|                                                           |      |      |
|-----------------------------------------------------------|------|------|
| Plantas de tratamiento de agua residual                   | 15   | 1    |
| Wastewater treatment plants treatment (m <sup>3</sup> /s) | 8.86 | 1.80 |

### Distribution

|                                                    |       |       |
|----------------------------------------------------|-------|-------|
| Collection and transport networks (km)             | 695   | 388   |
| (Secondary) Collection and transport networks (km) | 5,587 | 4,228 |

### Waste collection

|                                                         |           |
|---------------------------------------------------------|-----------|
| Tons transported                                        | 649,912   |
| Tons admitted to landfill La Pradera for final disposal | 1,133,632 |
| Leachate treatment plants                               | 1         |
| Leachate treated                                        | 12.7      |

### Water treated in wastewater treatment plants (million of m<sup>3</sup>)

|     |    |
|-----|----|
| 178 | 38 |
|-----|----|



Source: Vice Presidency of Water Supply and Sanitation

## Water supply and sanitation service coverage 2017

|                                                                                     | Water supply<br> | Sewerage<br> | Waste collection<br> |                |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------|
|    | Total customers                                                                                   | 1,186,434                                                                                      | 1,153,683                                                                                               | N.A.           |
|                                                                                     | Service coverage (%)                                                                              | 96.13%                                                                                         | 94.08%                                                                                                  | N.A.           |
|    | Total customers                                                                                   | 4,872                                                                                          | 4,996                                                                                                   | N.A.           |
|                                                                                     | Service coverage (%)                                                                              | 100%                                                                                           | 100%                                                                                                    | N.A.           |
|    | Total customers                                                                                   | 17,721                                                                                         | 13,813                                                                                                  | N.A.           |
|                                                                                     | Service coverage (%)                                                                              | 98.1%                                                                                          | 87.8%                                                                                                   | N.A.           |
|   | Total customers                                                                                   | 71,676                                                                                         | 54,544                                                                                                  | N.A.           |
|                                                                                     | Service coverage (%)                                                                              | 87.7%                                                                                          | 68.1%                                                                                                   | N.A.           |
|  | Total customers                                                                                   | 22,031                                                                                         | 18,059                                                                                                  | N.A.           |
|                                                                                     | Service coverage (%)                                                                              | 91%                                                                                            | 73.8%                                                                                                   | N.A.           |
|  | Total customers                                                                                   | N.A.                                                                                           | N.A.                                                                                                    | 789,334        |
|                                                                                     | Service coverage (%)                                                                              | N.A.                                                                                           | N.A.                                                                                                    | 99.3%          |
|  | Total customers                                                                                   | 174,800                                                                                        | 174,305                                                                                                 | N.A.           |
|                                                                                     | Service coverage (%)                                                                              | 100%                                                                                           | 99.80%                                                                                                  | N.A.           |
|                                                                                     | <b>Total customers</b>                                                                            | <b>1,477,534</b>                                                                               | <b>1,419,400</b>                                                                                        | <b>789,334</b> |


Source: Vice Presidency of Water Supply and Sanitation

Note: Ticsa has no direct customers, but it indirectly serves 1,374,840 customers through the operation of 8 wastewater treatment plants.

# Gas

## Installed capacity for gas service Grupo EPM

Grupo EPM

 Pressure regulating stations

88


 Compressor station (2,000 m<sup>3</sup>/h)

2

 Polyethylene pipes in Antioquia (km)

7,939

## EPM's gas service coverage

 Total customers

1,132,329

 Service coverage

82.75%



Source: Vice Presidency of Gas

# Grupo·epm

# Our Story

Grupo **epm**

**1955**

**Grupo EPM** originates from **EPM**,  
*a public company owned by the municipality  
of Medellín*



**1997**

EPM is transformed  
into an **industrial and  
commercial company  
of the State**

*to comply with Law 142 of 1994*

**1999** The company **Aguas  
del Oriente** is born

*to meet the demand of water supply and  
sewerage in the Municipality of El Retiro.*





# 2000

**EPM**  
becomes the parent company  
of a business group.

# 2002

EPM Bogotá Aguas is created;  
later on it would turn into  
Aguas Nacionales.



*Aguas Nacionales*

# 2003

**EPM purchases**  
and creates EPM Inversiones S.A.



**chec**

(Central Hidroeléctrica  
de Caldas)

**edeq**

(Empresa de Energía  
del Quindío)



(Hidroecológica del Teribe,  
Panamá)

# 2005

EPM adopts a new strategy and changes  
its organizational structure.



**une**

UNE EPM Telecomunicaciones S.A.E.S.P. is created.

# 2006

**2006 - 2007**

**EPM becomes a business partner  
of the regional companies**

*Aguas de Urabá and Aguas de Occidente.*



*Aguas de Urabá*



*Aguas de Occidente*

**2007**



**EPM is included into the regional  
electricity market of Antioquia.**



**2009**

**EPM purchases  
and participates in the creation  
of Empresas Públicas de Oriente.**



*(Centrales Eléctricas del Norte  
de Santander)*



*(Electrificadora  
de Santander S.A.)*



**2010**

**EPM invests in electric power  
companies of Central America**

*that have already been operating  
in the region, and acquires*

**holding DECA II**  
*and its subsidiary companies.*



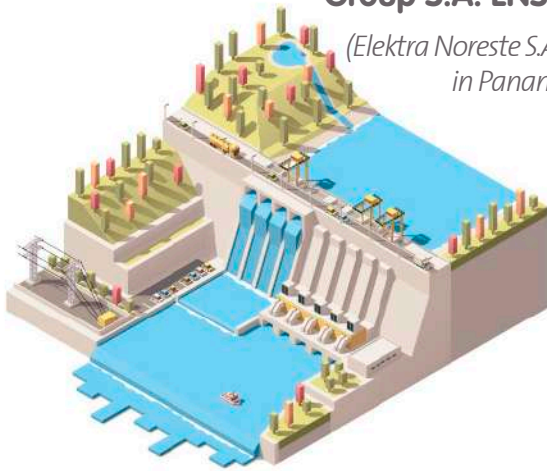
# 2011

**EPM purchases, through DECA II, the company El Salvador Holdings Ltd.**

*which in turn owns Delsur (Electricidad Del Sur) in El Salvador*

**and through the acquisition of Panamá Distribution Group S.A. ENSA**

*(Elektra Noreste S.A.) in Panama*



**EPM formally takes on the financing, construction, maintenance, operation, and commercial exploitation of the Ituango Hydroelectric Project**

*which will be the largest power generation station in Colombia with a capacity of 2,400 megawatts and will be operational in 2018.*

EPM acquires 85% of the public company Aguas de Malambo S.A. E.S.P.

**eppm**<sup>®</sup>

México



# 2012

**EPM México is created as a platform for the different projects that can be developed in that country.**

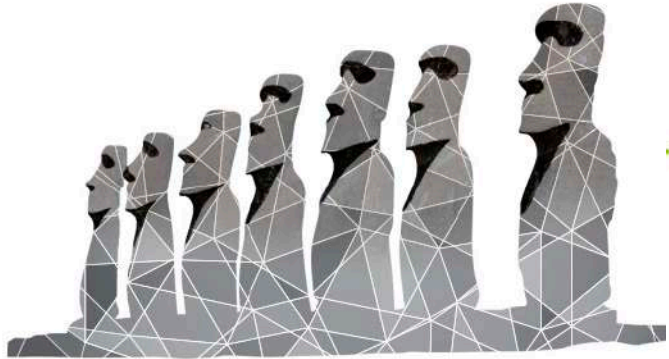
*After an early achievement of its big hairy audacious goal in 2011, the group defines a new strategic planning, projected for 2022, and undertakes a transformation process.*

# 2013

## **EPM Chile is born as a holding company**

*in order to leverage the growth plan of the company in South America.*

*Through this company, Grupo EPM starts the construction of Los Cururos Wind Farm with 109,6 megawatts, in the region of Coquimbo, Northern Chile, through a "turnkey" contract with the Danish firm Vestas.*



# Ticsa

## **Grupo EPM transforms itself to achieve the goals set for 2022.**

*EPM becomes the majority shareholder of Ticsa, in Mexico. This company focuses on design, construction, operation, and start up of waste water treatment plants.*

## **Upon acquiring Emvarias,**

*Grupo EPM expands its portfolio to solid waste collection and sanitation services.*





# 2014

**Grupo EPM, through its affiliated company EPM Chile,**  
*opens Los Cururos Wind Farm with 110 MW.*

**Grupo EPM** consolidates its new administrative structure.



**UNE – Millicom**  
seal the merger to create  
*new digital alternative in Colombia.*

# 2015

**EPM** strengthens its presence in Chile purchasing Aguas de Antofagasta.



2016

**Regional de Occidente and Aguas de Urabá merge, and the corporate name of the merger becomes Aguas Regionales EPM**



2017

ep·rio<sup>3</sup>

**Sale and purchase of assets, allowing E.P. Rio to continue providing the services in the municipality of Rionegro as affiliate of Grupo EPM.**

Grupo·epm

# Strategic thinking

## Corporate strategic planning

Strategic planning seeks to guide Grupo EPM and lead it to its desired future position, making planning a continuous process and a natural component of the organizational culture. This process includes the activities necessary to define a strategic framework, propose strategies to be further developed, and realize the long-term challenges, so as to ensure their compliance by implementing planning activities in the businesses and vice presidencies of corporate services and their translation into specific goals and commitments to results down to the individual level.

Therefore, it is essential to have elements of planning clearly defined and understood by the entire Grupo EPM, so that it is possible to focus efforts throughout the organization and so that these elements become references for decision-making at all levels, in accordance with the group's philosophy and its purpose, as well as with the direction it is intended to have.

The meaning and, above all, the content of the elements of strategic planning have been presented in a clear, specific, and complete manner and using a plain and motivating language that facilitates its understanding by the Grupo EPM people and creates a common meaning and a shared vision. For this purpose, the strategic planning for the group has been defined as **corporate strategic planning**, and for each business as **competitive strategic planning**, identifying, in each case, elements that guide the work of the group.

**Corporate strategic planning** is understood as the set of elements, decisions, and actions that define global choices in a multi-business group, seeking to create value through the configuration and coordination of its activities in multiple markets.

Reading and analyzing the signals provided by the environment, together with the expectations of the owner and the stakeholders, mark the starting point for the analysis and definition of the group's strategic planning and its businesses and, in turn, for the alignment of the intentions of result and performance of its companies.

To Grupo EPM, corporate strategic planning is grouped in three dimensions: **identity, action, and results**; each of which contains two elements, as follows:

- **Elements of identity:** Identity is established through those elements representing the corporate philosophy. It includes **values** and the **business purpose**.
- **Elements of action:** They allow the realization of the statements included in the elements of identity. They are expressed through the **strategy** and the **businesses** in which the group has decided to participate.
- **Elements of results:** The accomplishments that Grupo EPM expects to have are defined. They comprise the **BHAG and the strategy map**.

### Identity

What we decide to BE:

- Values
- Purpose



### Values

Transparency / Responsibility / Warmth

### Purpose

In Grupo EPM, we seek to endure over time by contributing to the development of sustainable and competitive territories, generating welfare and development with equity in the environments where we participate. This, by developing infrastructure projects and providing our customers and users with solutions regarding electricity, gas, water supply, and sanitation, supplemented, through business agreements, by Information and Communication Technology (ICT) services, through a business plan that reconciles social, environmental, and financial results.

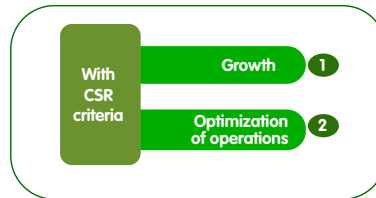
### Action

How we decide to DO IT:

- Businesses
- Strategy



### Strategy



### Businesses



Power Generation – Power Distribution – Power Transmission – Gas – Water Supply – Wastewater Management – Solid Waste Management

### Results

What we decide to ACHIEVE:

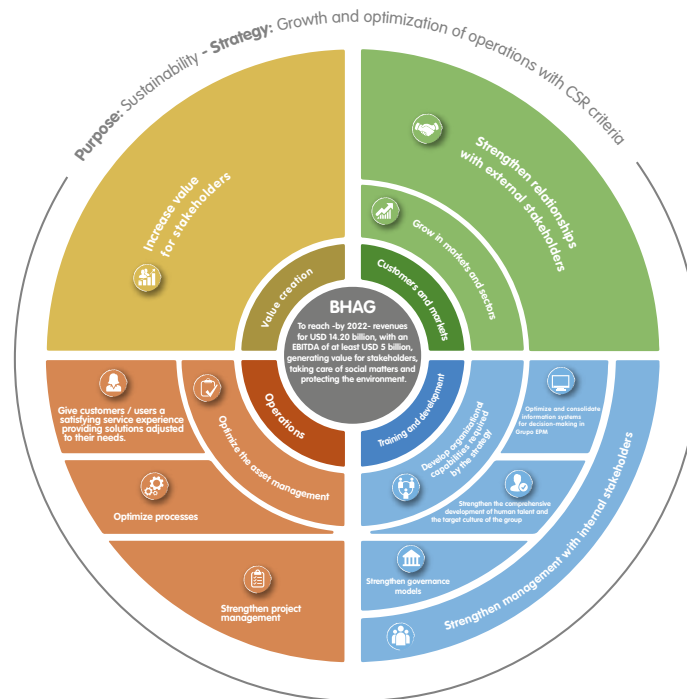
- BHAG
- Strategic Goals



### BHAG

In 2025, Grupo EPM will be growing efficiently, sustainably, and innovatively, ensuring access, to 100% of the population, to the services it provides in the territories where it is operational; protecting 137 thousand new hectares of watersheds, in addition to its own, with a carbon neutral operation and generating an EBITDA of COP 12.6 trillion.

Below is our Balanced Scorecard (BSC) along with its strategic goals.



Click here to view the BSC results 2017:

<http://www.sostenibilidadgrupoepm.com.co/english/bsc-results-2017/>







## Competitive strategic planning

**Competitive strategic planning** refers to a group of integrated choices that seek an explicit intention to position the business in the target market. It includes the strategic imperative and the business model:

### a. Strategic imperative:

It is defined within the fundamental mandate that needs to be developed by the business to respond to the ambitions set out in the business group's strategic planning.

For each business, a strategic imperative has been defined, as follows:

|                                                                                                                                                       |                                                                                   |                                                                                                                                                         |                                                                                                                                                                                       |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                      |  |                                                                        |                                                                                                      |                                                                                                                                                                                    |                                                                                                                                                             |
| <b>Distribution</b>                                                                                                                                   | <b>Transmission</b>                                                               | <b>Gas</b>                                                                                                                                              | <b>Generation</b>                                                                                                                                                                     | <b>Water supply and sanitation</b>                                                                                                                                                                                                                                    | <b>Solid waste management</b>                                                                                                                                                                                                                  |
| To <b>grow</b> nationally and internationally, <b>consolidate</b> the business in Colombia, and make operations <b>profitable</b> in all territories. | To <b>grow</b> in the national and international markets.                         | To <b>grow</b> nationally and internationally and <b>strengthen the business' positioning and increase business coverage</b> in Medellin and Antioquia. | To <b>grow</b> in a sustainable manner through the development of projects, the production and commercialization of energy, and the timely <b>incorporation of new technologies</b> . | To make operations <b>profitable</b> in the current markets and <b>grow</b> nationally and internationally where the market generates opportunities. <b>To promote</b> sectoral <b>public policy changes</b> that enable a sustainable growth in the national market. | To <b>grow</b> in Colombia through the purchase or construction of landfills, the construction and operation of recycling plants, the sale of landfill biogas, and the transport and disposal of hazardous, construction and demolition waste. |

### b. Business model:

It describes how the business chooses to create, deliver, and capture value. It is built upon the identification of competitive advantages and their potential of use in the market so that the business reaches a position higher than that of the competition. This work involves a collective exercise within the organization.

In order to define its business model, the group has used the Canvas methodology, introduced by Alexander Osterwalder and Yves Pigneur in their book "Business Model Generation".

# Our challenges

## Challenges

The following are the main challenges faced by the organization:

- Intensifying the implementation of the initiatives derived from “2025 Vision”.
- Strengthening integrated planning by improving the articulation between the corporate core, the businesses, and the support functions.
- Updating the group’s strategic planning.
- Achieving the launch of operations of the following megaprojects underway: Ituango hydroelectric power station and Aguas Claras WWTP.
- Continue implementing, in Urabá, the Model of Integration to the Territory (abbreviated MIT in Spanish) as a decision-making tool for systematically managing relations with the territories.

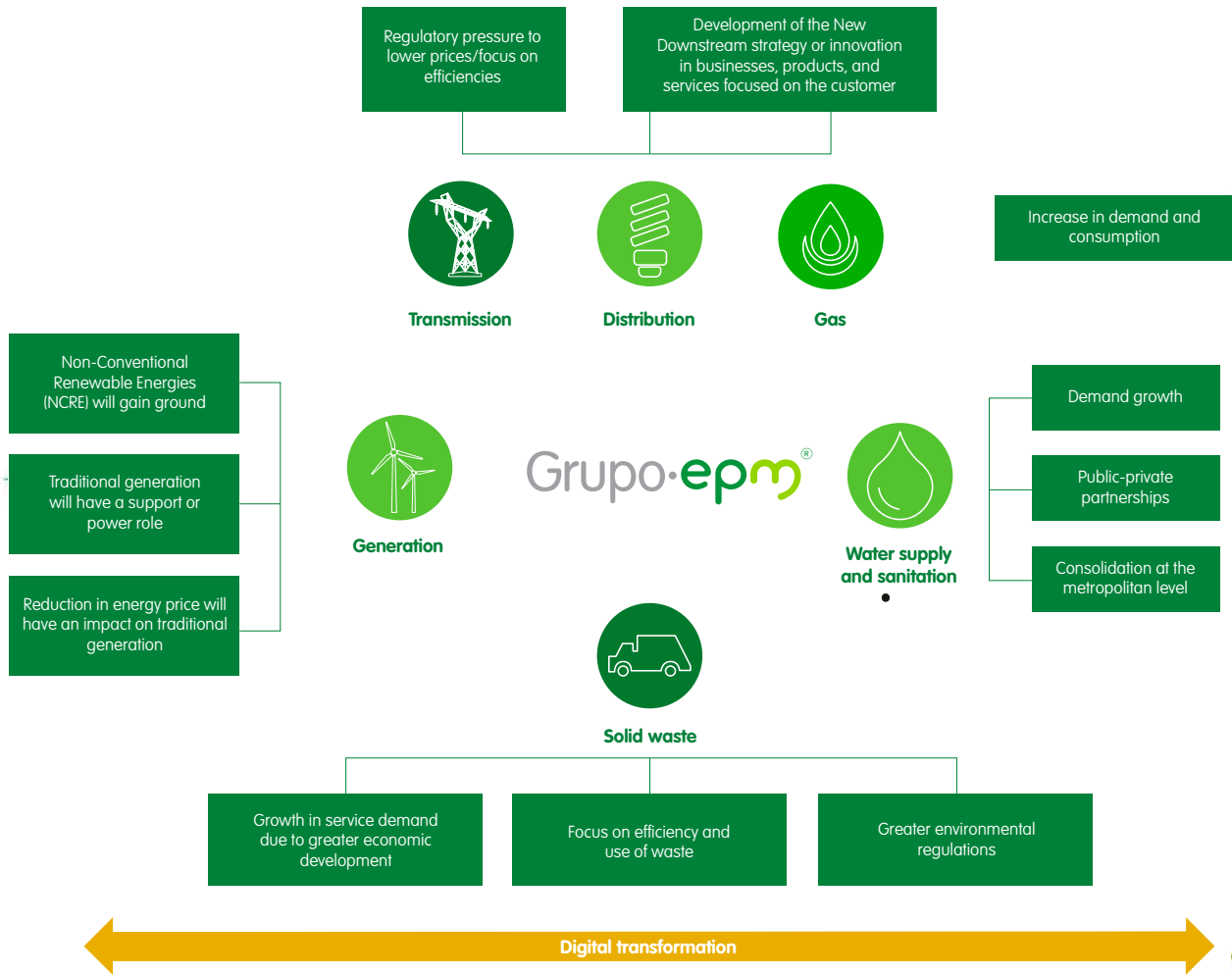
## Macro-trends

Within the businesses, the following three disruptive trends are observed:





## Signals - Global trends



## Comprehensive risk management

### Framework:

In Grupo EPM, Comprehensive Risk Management (CRM) is structured on the basis of several elements, among which the CRM policy stands out as a statement on the commitment of senior management to risk management and mitigation. In order to obtain a complete picture of the risks to which the group is exposed, these are identified in the different management levels within the organization, and different reporting lines are defined based on to their criticality. Another of the fundamental elements for this management is the existence of the Comprehensive Risk Management process officially defined in the organization's process model and its associated organizational structure.

As part of the CRM process, a “toolbox” has been developed for the identification and qualitative and quantitative assessment of risks, all under the corporate methodology of comprehensive risk management that takes as reference the best national and international practices, including the ISO 31000.

The Middle Office scheme is defined as an organizational function in EPM. It is focused on designing and implementing methodologies for the quantification, review, and monitoring of financial risks associated with the administration of excess liquidity and the definition of related regulations. Additionally, this function has defined a reporting line to the executive vice president of corporate finance and investment management and the vice president of corporate auditing.

### Risk reporting mechanisms:

The highest-level risks are those identified and valued at the business group level. These are reported to the board of directors, and its periodic monitoring is carried out by two groups: the management committee where the first-level business and support vice presidents participate, and the audit committee which is made up of three independent members of the board of directors and in which the executive vice president of corporate finance and investment management, the vice president of corporate auditing, and a representative of the external audit firm attend as guests.

The risks of each business are approved by the corresponding vice presidency (power generation, power transmission and distribution, gas, water supply and sanitation, commercial), and its periodic monitoring is carried out by the performance management units of each business whose role is to monitor these risks and their mitigation plans.

At the company level, each of the group’s national and international operating affiliated companies have risk matrices that are approved by the board of directors, and their periodic monitoring is carried out by the management committee or audit committee of each company.

The risk matrices of projects, processes, and contracts are approved by the person in charge who can be the head of unit, director, and sponsors of the project or person requiring the contract. Based on the criticality of the risks, these matrices are presented to the vice presidency to which the process belongs: in the case of projects, to the vice presidency of projects and engineering; and in the case of contracts, to the vice presidency of supply chain or to the contracting committee.

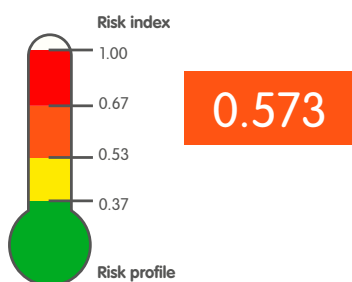
As part of risk governance, these are also analyzed in other tactical committees, such as the comprehensive risk management committee, financial committees, or compliance committees.

In addition to the risk practices in the organizational management levels, specialized risk analyzes that follow specific risk studies for timely decision-making are also carried out. As an example of these, we highlight the analysis of risks in the electricity market, financial risks of the excess liquidity portfolio, loss of profit coverage due to low hydrology, quantification of risks in projects (CAPEX and NPV at risk), quantification of risks of damage, breakage and profit, stress analysis of financial statements due to the materialization of possible risks, among others.

## Risk matrix – Grupo EPM

|             |              | Consequence |            |            |                |         | Color convention of the risk level |
|-------------|--------------|-------------|------------|------------|----------------|---------|------------------------------------|
| Probability |              | Minimum     | Smaller    | Moderate   | Higher         | Maximum |                                    |
| 2017        | Very high    |             |            | 9          | 7              |         | Extrem<br>High<br>Moderate<br>Low  |
|             | High         |             | 26, 27, 28 | 8, 21      |                |         |                                    |
|             | Intermediate |             | 1, 18      | 5, 16, 22  | 4, 11          | 13      |                                    |
|             | Low          |             | 14, 17, 20 | 12, 23, 25 | 15, 19, 24, 29 | 3       |                                    |
|             | Very low     |             |            |            |                |         |                                    |

## Risk index



\*The risk profile for Grupo EPM represents the general exposure of the business group to a certain number of risks at any given time and measured on the basis of the risk ratio, a number that can take values between 0 and 1, with 0 being minimal risk and 1 maximal risk, which represents the risk level of the matrix as a whole.

## Top 10 risks - Grupo EPM

| Top 10 risks - Grupo EPM |                           |                                                                                                                                                                                        |                                                                                       |
|--------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Code                     | Category                  | Name of the risk                                                                                                                                                                       | Risk level                                                                            |
| 3                        | Planning and growth       | Difficulties in infrastructure project management.                                                                                                                                     |    |
| 4                        | Business group management | Inadequate implementation of the engagement model designed to act as a group.                                                                                                          |    |
| 7                        | Information management    | Inadequate management of information at Grupo EPM.                                                                                                                                     |    |
| 9                        | Money laundering          | Development of activities to make resources of illicit origin seem to be licit (money laundering).                                                                                     |    |
| 11                       | Political                 | Political actors' interference on the business group management, which would jeopardize the achievement of strategic goals or limit budgetary, financial, and administrative autonomy. |    |
| 13                       | Public order              | Negative impact on the integrity of individuals and/or damage to infrastructure.                                                                                                       |    |
| 15                       | Human resource management | Negative impact on the safety and health of people due to working conditions and situations.                                                                                           |    |
| 19                       | Market                    | Changes in market variables that may generate economic losses to Grupo EPM.                                                                                                            |   |
| 24                       | Natural and anthropic     | Natural disasters affecting the operation of Grupo EPM.                                                                                                                                |  |
| 29                       | Legal and regulatory      | Adverse changes in tax regulations.                                                                                                                                                    |  |

## Emerging risks

During the process of updating the 2017 group's risk matrix, we observed that the following risks remain emerging as they are relatively new, with a high degree of uncertainty and a tendency to increase their risk level.

| Emerging risks |                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| N°             | Risks                                                                                                                 | Main potential impacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Main improvement actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 8              | Shortage of or difficulty in accessing natural resources for the provision of services or future growth of businesses | <p>Generation:</p> <ul style="list-style-type: none"> <li>• Failure to seize the installed capacity of power plants.</li> <li>• Decrease in the possibility of developing new projects with the optimum capacity.</li> <li>• Decrease in income from electricity generation.</li> <li>• Decrease in transfers.</li> </ul> <p>Water supply:</p> <ul style="list-style-type: none"> <li>• Decrease in water yield.</li> <li>• Loss of regulation capacity.</li> <li>• Increase in the amount of sediments and algae.</li> <li>• Increase in operating costs.</li> <li>• Loss of collection in rate.</li> <li>• Rationing in the circuits served.</li> <li>• Negative impact on the water quality of the water source.</li> </ul> | <ul style="list-style-type: none"> <li>• Evaluation of the supply/demand/ infrastructure for catchment for the period 2016-2050.</li> <li>• Inter-institutional working groups on water quality.</li> <li>• CuencaVerde project. Actions for water protection in watersheds and dialogues for the custody of water in eastern Antioquia.</li> <li>• Agreements with regional environmental corporations.</li> <li>• Evaluation of gas supply backup mechanisms.</li> <li>• Forest conservation.</li> <li>• Restoration and reforestation.</li> <li>• Sustainable practices and uses.</li> <li>• Watershed modeling.</li> </ul> |
| 24             | Natural disasters affecting the operation of Grupo EPM                                                                | <ul style="list-style-type: none"> <li>• Personal injuries/death of employees and contractors.</li> <li>• Property damage.</li> <li>• Financial losses.</li> <li>• Interruptions in the provision of the service.</li> <li>• Negative impact on reputation and image.</li> <li>• Generation of environmental impacts.</li> <li>• Negative impact on communities or infrastructure.</li> <li>• Fines and lawsuits.</li> </ul>                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>• Business continuity initiative.</li> <li>• Management of climate change mitigation and adaptation.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Emerging risks |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| N°             | Risks                              | Main potential impacts                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Main improvement actions                                                                                                                                                                                                                                                                                                                                                                                                         |
| 26             | Cyber-attacks                      | <ul style="list-style-type: none"> <li>Sabotage.</li> <li>Modification or deletion of data.</li> <li>Intellectual property infringement, plagiarism, and defamation.</li> <li>Negative impact on reputation.</li> <li>Alteration of critical assets and cyber assets.</li> <li>Discontinuity or interruption in the service (energy, water supply, gas).</li> <li>Negative impact on the integrity and welfare of individuals.</li> <li>Environmental damage.</li> </ul> | <ul style="list-style-type: none"> <li>Diagnose IT cybersecurity.</li> <li>Implement cybersecurity controls.</li> <li>Acquire coverage in the insurance market for cyber risk.</li> <li>Implement protection capabilities.</li> <li>Enable controls on laptops and removable media.</li> <li>Strengthen the internal regulatory framework.</li> </ul>                                                                            |
| 29             | Adverse changes in tax regulations | <ul style="list-style-type: none"> <li>Greater tax pressures.</li> <li>Non-compliance with the assumptions stated in the business plans.</li> <li>Increase in the value charged to the user on PU (VAT).</li> </ul>                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>Create a committee to monitor the evolution of the tax reform along with the External Relationship department.</li> <li>Carry out the corresponding proceedings along with unions before the Congress on the impacts of the tax reform.</li> <li>Monitor the evolution of the legislative process.</li> <li>Analyze and manage mitigation alternatives for tax reform impacts.</li> </ul> |

**Sources for the definition of emerging risk:** *Risk and Insurance Management Society, Inc. (RIMS). RIMS Executive Report – The Risk Perspective. Emerging Risks and Enterprise Risk Management, New York, NY 10018*

## Actions proposed to mitigate risks

Each risk identified in the risk matrix of Grupo EPM has someone at the vice presidency level responsible for defining the improvement actions to mitigate the risk and engage the relevant stakeholders in risk management. At the end of 2017, improvement actions were proposed to address the group's risks, and each was documented in detail with a clear expected result, start and due dates, leader in charge, and person responsible for its implementation.

## Comprehensive risk management key actions 2017:

The risk map of Grupo EPM is the main input for updating the maps of the management levels defined in the comprehensive risk management model. During 2017, the following risk maps were updated:

- Businesses: generation, transmission and distribution, gas, water supply, waste water management, and solid waste management.

- National companies: CENS, ESSA, CHEC, EDEQ, Aguas de Malambo, Aguas de Oriente, Aguas Regionales, Aguas Nacionales, EPM Inversiones, and Emvarias.
- International companies: Los Cururos Wind Farm, Adasa, EPM Chile, HET, Ticsa, and Delsur.
- This year, the first versions of the risk map of the following companies were developed:
  - Trelec, a company that belongs to Corporación Deca II, based in Guatemala.
  - EPM Transmisión Chile.

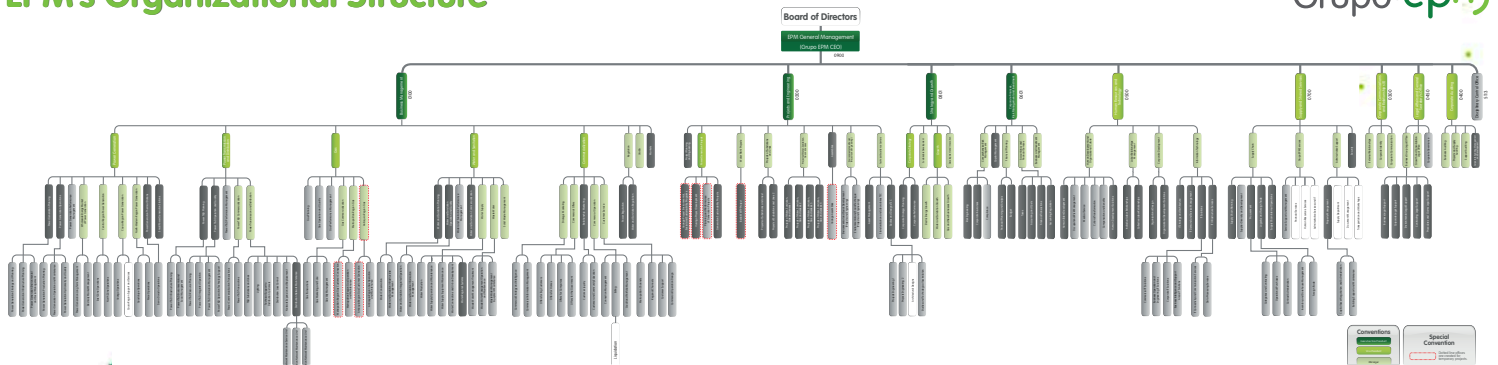
Also, the following results were achieved:

- Updating of risk maps of 57 documented and prioritized processes in the group's companies.
- Risk analysis in 144 projects.
- Risk analysis in 154 contracts with values above 5,000 monthly minimum wages in EPM.
- 109 analyses of specialized risks were conducted, including:
  - Risk management based on extreme scenarios.
  - Analysis of systemic risk in the wholesale energy market.
- Within the risk control program, in 2017, 17 visits were made to generation plants, power substations, and operation and maintenance center facilities, generating the corresponding reports for the treatment of the risks associated with individuals safety, fire, machine breakage, malicious acts by third parties, continuity of the operation, among others.
- The Business Impact Analysis (BIA) of all EPM businesses and energy affiliated companies was carried out.
- As for the Protocol for Addressing Events and Crises (abbreviated PADEC in Spanish), 86% of EPM heads of units, 188 professionals, and 15 operation and safety technologists were trained.
- A virtual PADEC course was designed, which will be disseminated in 2018.
- The vice presidency of communications was supported in the revision and updating of the communications manual for adverse events and crises.
- Consolidation for the third year of the national and international insurance program and national brokerage service that continues to show efficiencies in homogeneous technical conditions and premiums, accident management with uniform guidelines, and administrative efficiencies.
- Management and acquisition of a coverage to transfer the risk of cyber attacks with a specialized focus on possible impacts on the infrastructure of EPM's businesses.
- Maxseguros EPM, a captive company of the group, ratified its A- rating, stable outlook, with the firm AM Best (New Jersey), which demonstrates the confidence and support of the actions carried out over the past year.
- As part of the comprehensive risk management chain for Grupo EPM, Maxseguros contributed to the renewal of the policies for the 2017-2018 period, achieving very good results despite the existence of relevant loss events.
- Maxseguros EPM maintained its retention in the policies of property damages + profit loss, directors and administrators and infidelity, and financial risks, and participated as a facilitator in the civil liability and errors and omissions policies. Due to its active management and retention in the different policies of Grupo EPM, Maxseguros EPM acts as a reinsurer in the insurance chain and thus obtains first-hand information and is present in the processes and adjustment of accidents.

# Our organization

## EPM's Organizational Structure

Grupo **epm**



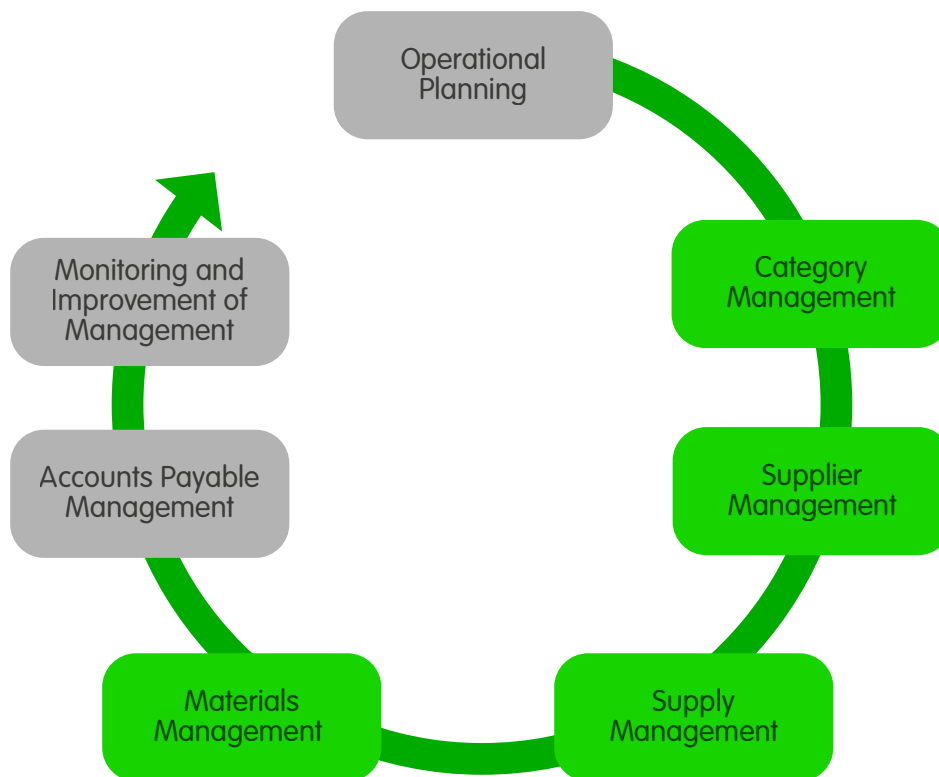
Click here to download the administrative structure PDF:  
<http://www.sostenibilidadgrupoepm.com.co/english/our-organization/>



# Our supply chain cycle for goods and services

## Supply chain cycle for goods and services

EPM implements a cycle for supplying the goods and/or services required by the business group in the most optimal conditions of quality, quantity, opportunity, and price, in order to achieve the consolidation of its businesses in the market and, thus, increase value for its stakeholders.



| Process                                         | Objective                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Operational planning</b>                     | To comprehensively identify, plan, and schedule the management focuses, projects, and operational and improvement plans aligned with the corporate and competitive strategic planning, allocating the necessary resources to meet the short- and medium-term goals.                                                                                               |
| <b>Category management</b>                      | To identify opportunities to achieve synergies and optimize operating costs by means of a specialized knowledge of the elements that comprise the required goods and services.                                                                                                                                                                                    |
| <b>Supplier management</b>                      | To improve the performance of suppliers and their satisfaction in their relationship with Grupo EPM.                                                                                                                                                                                                                                                              |
| <b>Supply management</b>                        | To negotiate the acquisition of goods and services in order to meet the needs of the organization and ensure compliance with the subject of the contract.                                                                                                                                                                                                         |
| <b>Materials management</b>                     | To manage the logistics of the required movable assets, receive, re-stock, safeguard, and supply movable assets according to the needs of the users.                                                                                                                                                                                                              |
| <b>Accounts payable management</b>              | To comply with the payment mandate of the different administrative areas in EPM and its subsidiaries in an agile and safe manner, fully meeting financial obligations, ensuring proper management of resources, optimizing the economic benefit for EPM and its administrative subsidiary, and guaranteeing the satisfaction of suppliers and other stakeholders. |
| <b>Monitoring and improvement of management</b> | To analyze the metrics and data associated with the execution of processes, in order to define the necessary improvement actions for the achievement and optimization of the planned results.                                                                                                                                                                     |



Read more:

- Responsible contracting for local development
  - Impact on the contracting process
  - Social contracting
  - Local, regional, national, and foreign contracting
  - Implementation and impact of the supply chain
  - Supplier strengthening and development
  - Relationship with suppliers and contractors
- 



**Management**  
report 2017

**Grupo·epm<sup>®</sup>**



Medellín, March 20, 2018

Dear

**Members of the EPM's Board of Directors**

Medellín

Every time we share the achievements of Grupo EPM with all our stakeholders, the first thing we do is recognize the support we receive and the dedicated work of many people, employees, subsidiaries, suppliers and contractors, municipalities, academia, industry, institutions, and all the communities that we feel are part of a great human team focused on helping, supporting, and offering solutions for a better quality of life.

The year 2017 was the opportunity to keep making progress in this regard. We continue the work in terms of closeness, coverage, consolidation, care for the environment, and growth, with a dynamic that today allows us to account for outstanding results in terms of universalization of services, sustainable mobility, innovation, development, and growth from important projects.

I would like to highlight the group's progress in terms of universalization of energy, piped gas, water, and wastewater services. We reached more rural sectors and also offered new alternatives so that systems such as prepaid energy and water—essential for many families today—are increasingly dynamic and accessible.

Regarding the protection of water resources and the search for a carbon neutral operation, central aspects of the environmental management of Grupo EPM, we implemented a series of strategies such as forest conservation, restoration, and reforestation; sustainable practices and uses; offset; and new protection areas.

As for sustainable mobility, we continued to promote initiatives such as vehicular natural gas (VNG), slow internal charging, and public charging eco-stations for electric vehicles; all with the purpose of contributing, in a significant way, to the reduction of CO<sub>2</sub> emissions and aiming at opening new spaces to diversify and optimize the country's clean energy mix.

A central chapter of this report refers to the group's growth strategy through the development of important projects such as the Ituango hydroelectric project, with a progress of more than 80% at the end of the year, and the Aguas Claras wastewater treatment plant, which is part of the Medellín River Sanitation and Wastewater Management Plan. Likewise, we met the challenge of developing for the country the Nueva Esperanza energy transmission project and the Bello-Guayabal-Ancón electric energy transmission line, in order to offer greater capacity in the transportation of the generated energy.

With the same purpose of reaching more communities and supporting regional development, we made progress in the San Nicolás project in an area located between the municipalities of El Retiro, Rionegro, and Envigado, in Antioquia, with effective solutions for the provision of drinking water and wastewater treatment in rural and suburban areas.

The presence in the region was strengthened with the arrival at Grupo EPM of the company E.P. Rio, from the municipality of Rionegro, and the efforts made in the Urabá region to leverage its growth.

All these achievements collected in the 2017 Management Report confirm the deep commitment that unites Grupo EPM with the society. Thanks to innovation, transparency, and responsible work, year after year the people of this organization take decisive steps towards the hearts of people.

We like to say that “we are there for you” because our purpose is to be present, in an almost imperceptible way, in the daily life of families, companies, and communities.

To you, members of the Board of Directors, all our recognition for your special dedication in the task of growing this company of which we all are proud.

This report wants to show how we are present in people’s lives with processes ranging from large engineering works to the water they receive in the kitchen, the light that illuminates a room, and the gas that heats a coffee or turns on the engine of a car without damaging the environment.

There are many remarkable moments and this is one of them. It is time to share what we do as a team and thank you with all our heart for your permanent support.

***This report meets the requirements of the “Communication on Progress” in line with the EPM’s commitment to the Global Compact to report on the dissemination and implementation of the principles in its strategy and operations. It should be noted that it was in 2014 when EPM reaffirmed its willingness to join the United Nations Global Compact and its commitment to the ten principles on human rights, labor, environment and anti-corruption.***



Jorge Londoño De la Cuesta  
CEO



## Business purpose

Grupo EPM seeks to **remain through time** by contributing to the development of sustainable and competitive territories, **fostering well-being** and equitable progress in the places where it operates. Therefore, the Group focuses on developing infrastructure projects and **offering our customers and users** electricity, gas, water, and sanitation solutions supported on business agreements with information and communication technology (TIC) services, **comprising business activities that harmonize social, environmental, and financial results.**

Within this business purpose, we have set ourselves a Big Hairy Audacious Goal (BHAG) comprising social, environmental, and economic dimensions, and expressed as follows:

“In 2025, Grupo EPM will be growing efficiently, sustainably, and innovatively; ensuring **access to its services to 100% of the population** in the territories where it operates; **protecting 137,000 new hectares** of basins, in addition to its own, with a **carbon neutral operation**; and generating **COP 12.6 billion Ebitda.**”



In order to achieve our business purpose and reach our BHAG, the actions and challenges for the period 2017-2020 were prioritized and grouped in five concepts defined as the “4C+1G,” from which we focus on being **closer** to our customers and users, suppliers and contractors, and Grupo EPM people; we work on the improvement of our **coverage** in the territories where we operate; we **take care of the environment** through the protection of water basins and the search for a carbon neutral operation; we **consolidate** ourselves through projects that generate efficiency in processes and new capacities required by the organization; and we **grow** giving priority to the development of infrastructure projects, strengthening our presence in Urabá and Eastern Antioquia, and taking into account the business opportunities that may arise.

With the “4C+1G” concepts, we explicitly articulate the strategy with the BHAG and this is what we are developing from that approach.



## Closeness

Grupo EPM, in accordance with its strategic planning, has set as one of its priorities to **strengthen the engagement** with its customers and users, suppliers and contractors, and Grupo EPM people, as part of the actions to reach the BHAG.

The programs and actions developed are reflected in the results shared with each of the aforementioned stakeholders.

### Customers and users

Grupo EPM aims to deliver a value proposition of public utilities and a portfolio of solutions with an integral focus on this group of stakeholders, under parameters of opportunity, quality, coverage, innovation, and continuity and seeking to promote social development with equity, quality of life, competitiveness, and mutual sustainability.

With the **We are there for you** strategy, topics of interest for EPM were addressed in direct conversations with more than 142,000 people in the department of Antioquia; moreover, 1,600 community leaders received training. In the four national energy affiliates, more than 170,000 people were impacted using a similar strategy. In addition, more than 440,000 people from different territories of the country were directly benefited through engagement actions and academic and regulatory events.





The **quality of life of customers and users was improved** thanks to new means provided by the group to access procedures and services in a more timely and comfortable manner, through solutions such as the EPM mobile app, electronic billing, and customer service in social networks. The Integrated Service Support Center (IDEAS) was implemented in order to optimally manage the customer service channels, aiming at offering memorable experiences to customers and users and maximizing operating efficiency.

Through the **Somos** loyalty program, around 27,400 new families benefited from the Somos credit, for an approximate total of 180,000 families and COP 89 billion in credits at the end of the year. About 64,000 customers and users enjoyed additional benefits of the program, such as discounts, experiences with soccer teams, contests, raffles, marathons, exchange of points as part of payment for public utilities, Metro's Cívica card credit, and products of the rewards catalog.



**Corporate customers** also received support thanks to the promotion of commercial offers and the consolidation of the perception of EPM as a strategic ally—a strategy that reached about 6,300 people among government, corporate, and large customers. In addition, in order to contribute to the development of companies and strengthen business relations, 38 seminars were held in the country in coordination with the government sector, as well as 11 academic and regulatory events with the business sector. At the local level, we can highlight 61 business approaching programs, 21 visits to plants, academic advice to 300 industrial customers, and awareness campaigns on energy efficiency with 1,200 small businesses.

## Suppliers and contractors

During 2017, within the **Sustainable Ecosystem for Suppliers Development** strategy, which seeks to promote alliances focused on generating opportunities for improvement, based on the knowledge and understanding of mutual needs and expectations, and where EPM acts as a development engine that enhances suppliers' and contractors' capacities, progress was made in the following initiatives:

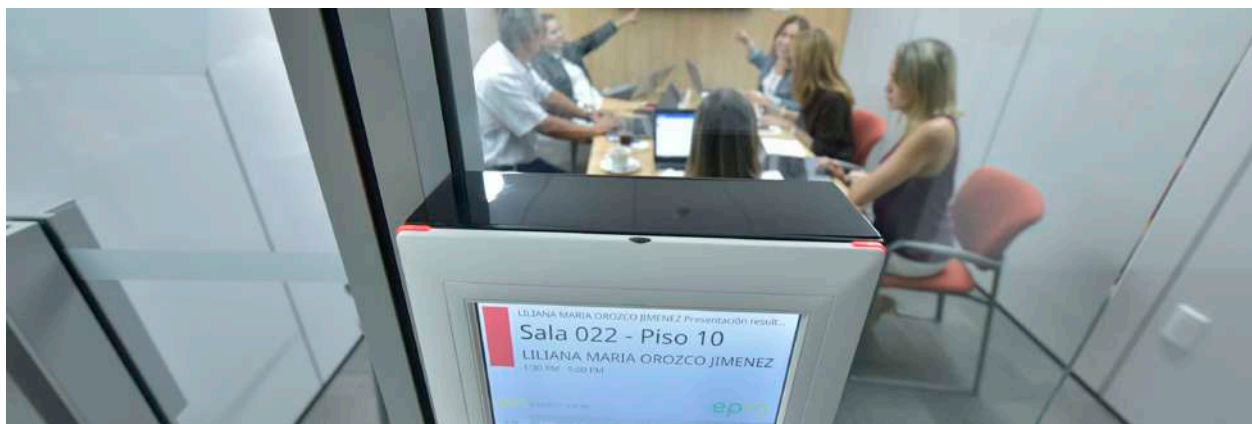
- 150 technicians graduated from the **School for the Training of Transmission Linemen**.
- 57 local suppliers of the energy sector were developed in alliance with the Energy Cluster, the Korea International Cooperation Agency (KOICA), and the United Nations Office for Project Services (UNOPS).
- The first pilot to **strengthen the strategic capability** of five companies was carried out. Additionally, ten companies received support to optimize all the processes of its value chain.
- **Business diagnosis** was carried out with 114 suppliers in order to provide them with comprehensive and strategic information on their companies, allowing them to identify their opportunities for improvement and hence design improvement plans.

Moreover, **50 events** were held to share information on **contracting, human rights, code of conduct, sustainable mobility plan, air quality, and the new information system**, impacting 2,507 people with 1,253 suppliers and contractors that represent 25% of the total suppliers registered in Grupo EPM.

Finally, the second **Saber+ meeting** was carried out with the participation of 50 companies in the trade fair, 133 in the suppliers' room, and an average of 50 people in the technical events. The updated Code of Conduct was also officially launched in the presence of suppliers and contractors.

## Grupo EPM people

During 2017, EPM continued to strengthen its work environment, aiming at ensuring that employees have a satisfactory experience in the development of their activities in the company, as well as emotional well-being, balance between family and work life and between professional contribution and recognition; all in line with its strategic goals.



Advances in this field are evidenced by the results of the measurement of **Organizational Climate**, which counted on the participation of 87% of the population and obtained a result of 58.9 points, that is, an increase of more than three points compared to the previous year, placing EPM at a good level, above the market average. The measurement of **Quality of Life and Psychosocial Risk**, with a participation of 80% of the population, also showed a positive score of 61.94% in low risk or no risk, classifying EPM as a healthy company.

These figures are the result of a work focused on the variables Support by the Chief, Organizational Clarity, and Interpersonal Treatment, through initiatives such as:

Strengthening of the **competencies of the leaders** for the achievement of results, through the execution of six events related to the development of managerial and leadership skills, as well as the development of modules related to administrative and human resources management. 424 executives and managers participated in the first activity and 500 in the second activity. Additionally, 229 executives participated in the Executive Coaching program and 37 were certified in the Senior Management program.

Regarding the **training plan**, 6,596 people received training and 27,791 attended events, with an average of 33.2 hours of training per employee.

For the **appropriation of the corporate strategy**, experiential tours called "Traveling to the Heart of Grupo EPM" were carried out with the participation of 1,040 employees; as well as a card game about strategic planning for the operating staff, in which 756 employees of regional offices and headquarters took part. Also, the Network of Agents of Change was created to support the assimilation of organizational changes, enabling 300 collaborators for its operation.

Additionally, as part of the strategy to strengthen conversational skills in EPM, six massive spaces of conversation called "**Naturalmente**", were conducted to address topics relevant to the organization. These spaces were led by the CEO and had a significant participation of employees, in person and via streaming. The group also started the implementation of the **Ethical Management Model**, complemented by "ethical meetings" in the different work sites, in order to promote ethical principles and values. 1,300 collaborators participated in these activities.

Regarding the **internal mobility of the employees**, it is worth mentioning:

- Arrival of 1,133 people at the organization to deal with some critical processes.
- 410 promotions, 239 changes due to selection processes, and 45 collaborators appointed as project leaders.
- 194 transfers among departments, taking into account the optimal location of resources and the development of collaborators.
- 216 collaborators enrolled in the teleworking program.



Regarding the management of **benefits**, 89% of the EPM's employees made use of at least one of the benefits granted by the company. It means a total of 50,086 benefits amounting to COP 26 billion, among which we highlight:

- Inclusion of a new health benefit for employees and beneficiaries, which contributed to increase the usability of the value granted in benefits.
- Celebration of special dates such as Secretary's Day, Family's Day, and EPM Classic Day, with a total participation of 13,686 people.
- 479 people benefited from housing loans amounting to COP 56 billion.



## Coverage

Grupo EPM seeks to reach the goal of universalizing public utilities, through joint work and coordination of variables such as the connection of new customers and users, the affordability of the services (that allows customers to keep enjoying them according to their economic capacity), and the connection of those populations that today cannot access the service due to technical or legal limitations in their locations.

In 2017, **universalization** reached coverages above 97% in the services of energy for Grupo EPM and solid waste management in Medellín. The coverage for water supply in the group was 96.7% and 92.25% for wastewater management; while gas supply reached 82.75% at the regional level.

As for the **connection of new customers and users**, there were 76,741 new connections to the EPM energy service, for a total of 2,368,457 customers. The gas service received 66,624 new customers for a total of 1,132,329. The water supply and sewerage services reached 41,121 and 42,221 new customers respectively, for a total of 1,186,434 and 1,153,683.

Regarding **rural electrification**, we highlight the following actions aimed at expanding the coverage of the energy service in rural zones of the coverage area:

- EPM connected 2,292 new homes, with an investment of COP 20.20 billion, benefiting 9,168 people, and reaching a total of 107,156 homes connected and 444,745 people benefited.
- ESSA electrified 5,033 new rural homes, with an investment of COP 29.41 billion and 20,132 people benefited through the Let's illuminate Santander project; for a total of 30,424 homes connected and 121,696 people benefited.
- CHEC connected 174 homes, investing COP 1.16 billion and benefiting 696 people with this program, for a total of 12,960 homes connected and 64,580 people benefited.
- CENS connected 258 rural homes, with an investment of COP 2.86 billion and benefiting 1,032 people, for a total of 7,309 homes connected and 29,236 people benefited.
- Eegsa connected 1,042 homes, benefiting 7,020 people, for a total of 5,843 homes connected and 31,025 people benefited.
- Delsur connected 1,307 homes, with an investment of COP 407 million and 4,725 people benefited, for a total of 2,937 homes connected and 14,527 people benefited.

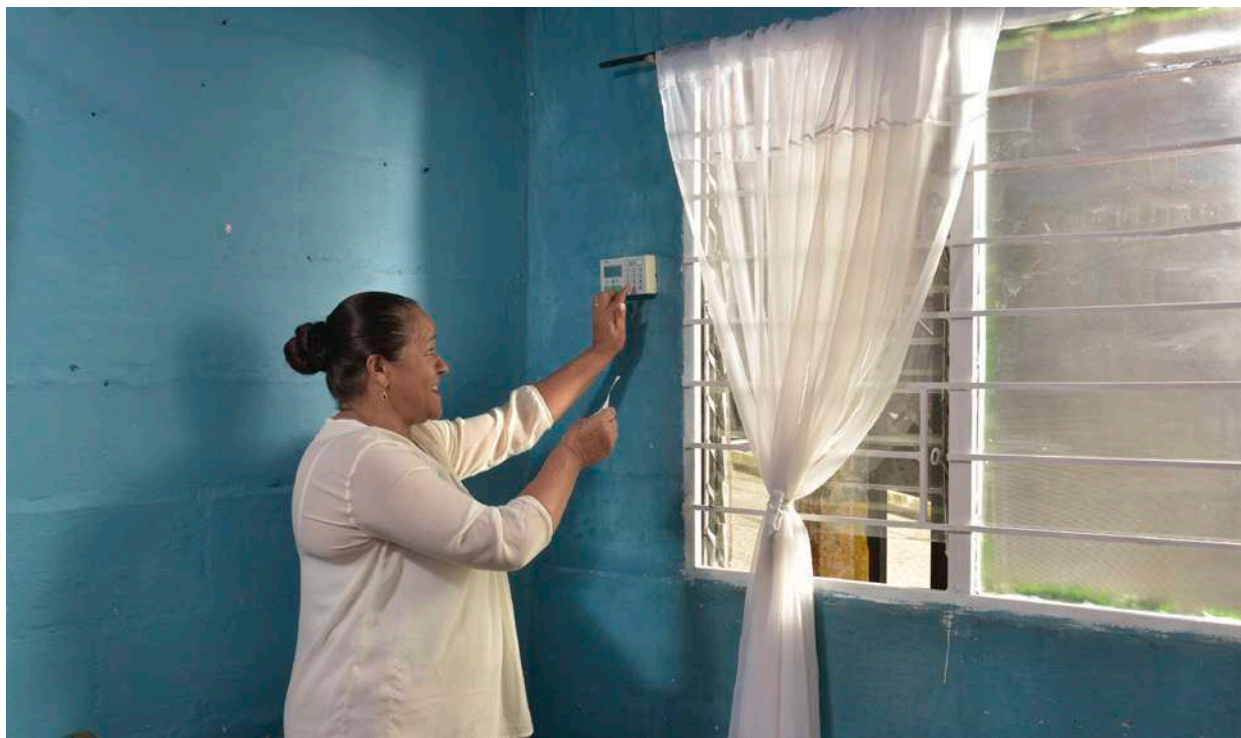
Thanks to the above actions, and in addition to the efforts made in previous years, in 2017 there are 166,957 homes connected to rural electrification programs of Grupo EPM, benefiting a total of 691,347 customers and users.

Moreover, by connecting 23,234 homes to the services of water, sewerage, energy, and gas, the group contributed to the improvement of the quality of life of the people who live in those houses of Medellín previously constituted without public utilities. Particularly, through the **United for Water program**, 6,513 homes were connected in 2017, closing the year with a total of 11,317 homes with water supply and sewerage service covered by this initiative.

As for the continuous enjoyment and use of the service, the **Pay According to Your Needs** offer stands out for connecting 51,070 customers and users in Antioquia during 2017, for a total of 120,708 users since the beginning of the offer in 2014. In addition, this offer was also implemented by the subsidiaries CENS, ESSA, and Aguas del Oriente.

The services provided through prepayment systems have also been very favorably received. 22,084 customers and users have been connected to **prepaid energy** in Antioquia, for a total of 242,956 connections since 2007; that is almost 10% of the total number of customers and users of the EPM energy service. The **prepaid water** service received 3,934 new users in Valle de Aburrá, reaching 20,209 customers and users since 2015.

These solutions make it possible for people with economic difficulties to access services according to their economic capacity. To that end, **non-conventional payment channels** have been provided, such as the UNE public telephones network through which 68,465 micro-payments or top-ups from COP 1,500 were carried out, contributing more than COP 115 million in revenues and 424,000 kWh in consumption. Also, in times of emergency, nearly 299,000 customers, by means of their cell phones, added COP 2,000 in advance to their accounts to be paid later. This service amounted to 2 million kWh in consumption and COP 559 million in revenues. Finally, at the authorized points, customers and users of the water service carried out 3.72 top-ups per month for an average amount of COP 7,676 and with an average consumption of 9.17 m<sup>3</sup> of water.





## Care for the environment

Grupo EPM is committed to caring for the environment through the **protection of water resources** and the search for a **carbon neutral operation**, in order to guarantee sustainability—a fundamental element in the business purpose.

### Water protection

Grupo EPM implemented, directly and in coordination with other actors, a series of strategies such as **forest conservation, restoration, and reforestation; sustainable practices and uses; offset; and new protection areas**, with the objective of **protecting the water resources** in the hydrographic basins of Porce (Río Grande, Río Aburrá, and Porce-Alto Nechí), Nare (La Fe, Río Negro-Nare), Cauca (area of influence of the Ituango Project), Chinchiná, the area of influence of the affiliate Aguas Regionales in Urabá, among others, thus contributing to the protection of **22,575 hectares** in 2017, for a total of 36,040. These results were obtained mainly due to the following actions:

- Agreements with regional autonomous corporations such as Corantioquia, Cornare, Corpocaldas, Corpourabá, Carder, and some municipalities, for the protection of river basins that supply reservoirs and other systems of Grupo EPM.
- Support to the forest conservation strategy, through the zoning of the Cacica Noría Integrated Management District (DMI), in the Porce basin, thanks to the EPM-Corantioquia alliance and the declaration of the Las Camelias Regional Integrated Management District, in the Nare basin, in alliance with Cornare.
- Continuation of the BanCO2 program: payment for environmental services to peasant families for the conservation of natural forests.
- Public-private alliances that make it possible to join efforts with a common objective: protecting water resources. It is worth mentioning the alliances with Corporación CuencaVerde, UNDP, and other NGOs.



## Carbon neutrality

In the search for a carbon **neutral operation by 2025**, Grupo EPM made progress in the following areas during 2017:

### Emissions inventory

The inventory of greenhouse gas (GHG) emissions in 2016<sup>1</sup> was estimated, including the national and some international affiliates of Grupo EPM.

### Carbon offset

- Certified emission reductions corresponding to 72,908 tCO<sub>2</sub>e, for the operation in 2016 of the La Vuelta and La Herradura small hydroelectric power stations.
- Verification of the reduction of emissions corresponding to 266,814 tCO<sub>2</sub>e, for the operation between 2014 and 2015 of the Los Cururos wind farm.

It is important to highlight the design of the **Grupo EPM's climate strategy**, whose guidelines include the management of aspects such as greenhouse gas emissions (GHG), climate risks, and water resources and biodiversity.

## Sustainable mobility

As part of its purpose of contributing to the development of the territories and the improvement of the quality of life of the communities, EPM continues making progress in the **Air Quality** program with the **sustainable mobility** strategy and with initiatives that include **vehicular natural gas (VNG)**, **slow internal charging**, and public charging **eco-stations** for electric vehicles; contributing to the reduction of CO<sub>2</sub> emissions, promoting a more rational use of energy, and aiming at opening new spaces to diversify and optimize the country's clean energy mix.

During 2017, 1,535 vehicles were converted to natural gas, for a total of 56,000; as well as 419 vehicles of the gas public transportation system, and 63 waste collection vehicles of Emvarias.

Regarding electric mobility, the **internal charging** program was set in motion, reaching a total of 56 visits and 26 installations. **Ten eco-stations** also started to operate throughout the metropolitan area of Valle de Aburrá, and some progress was made in the pilot project of electric taxis, which aims to replace 1,500 combustion taxis with 100% electric taxis within a period of three years.

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<sup>1</sup>The annual inventory is calculated during the first semester of the following year.





This boost to the **mobility of Valle de Aburrá** is complemented with the financing of bicycles and electric motorcycles for members of the Somos program; the implementation of the **Renting Smart City project**, led by Renting Colombia and Localiza Rent a Car, with the support of EPM, which counts on 50 electric vehicles for renting; and the operation of a 100% electric bus that provides transportation services for EPM employees between the company's main headquarters and two stations of the Metro system.



The electric mobility business model is been structured in the national affiliates. These companies are also acquiring the first chargers that will serve to expose these new technologies in the cities. For its part, CHEC acquired a 100% electric bus, in order to show this technology in its territory. In the international sphere, Eegsa and ENSA have taken the first steps in mobility, always aligned with the group's vision. In this way, Eegsa purchased the first vehicles for demonstration, monitoring, and analysis.



## Consolidation

### In businesses

#### Power generation

In general, the Colombian electricity system had a normal year in terms of water inputs in hydroelectric generation plants, with a first semester under the effects of **El Niño Costero**<sup>2</sup> that caused flows above the historical average values, and a second semester with flows below historical averages in some basins.

The increase in the flows during the first semester, together with a growth in the demand for energy below the expected<sup>3</sup>, generated a strong competition among the hydroelectric plants of the system for the dispatch of energy, resulting in an **important drop in the prices on the stock exchange**, a decrease in the expected generation of agents and, therefore, lower income than anticipated by energy sales on the stock exchange. In addition, the unavailability of the **Playas power station** also impacted the generation during the second semester, although to a lesser extent with respect to the effect of the competition for the dispatch; however, the same year, EPM managed to recover and operate two of the units of the power station.

After many negotiations with the communities and with the support of the national and departmental governments, agreements were signed with the three communities in the area of influence of the **Jepirachi Wind Farm**, which allowed EPM to begin the restoration of some wind turbines affected during the forced occupation by the indigenous community.



<sup>2</sup> El Niño Costero: A weather phenomenon different from the El Niño phenomenon, which brought humidity to the western and southern areas of the country.

<sup>3</sup> Growth in demand: At the end of the year, the growth in the demand for energy was only 0.86% compared to 2016.

Regarding the national affiliated companies<sup>4</sup>, ESSA achieved higher economic results than expected thanks to the availability of the power plants that made it possible to take advantage of the increase in water inputs and, therefore, generate more power. CHEC, despite the damages in the Sancancio and Intermedia power stations due to the landslides occurred in Manizales during the rainy season of the first semester of the year, achieved high power generation levels. Our international affiliates<sup>5</sup> presented **high levels of availability**, although there are still some restrictions due to congestion in the transmission networks and low prices, which negatively impacted the results.

There were also important milestones within the framework of the **Alliances for Development** in the areas of influence of the main power generation stations: inauguration of Plaza El Tomatero in the municipality of El Peñol, signing of 12 agreements for productive projects as part of the UNDP<sup>6</sup>-EPM alliance in the Porce-Cauca basin, and signing of the agreement between EPM, MASER<sup>7</sup>, ISAGEN, and seven municipalities of Eastern Antioquia for the strengthening of sustainable agricultural production systems. Progress was also made in the Ciudadela Educativa El Tablón project, an option for the professional and integrated development of the inhabitants of the Porce basin, with the support of the Ministry of National Education and other seven institutions, including Universidad de Antioquia, the Secretariat of Education of Antioquia, Politécnico Jaime Isaza Cadavid, and Escuela Superior Tecnológica de Artes Débora Arango.

Finally, EPM continues **improving the operational safety system** to further strengthen the reliability and continuity of the generator park, as well as analyzing adjustment proposals on regulatory matters that promote an increasingly efficient and sustainable sector focused on the long term.

## Transmission and distribution

As part of the strategy to strengthen **the energy loss control and management**, a solution was implemented to deal with the non-technical losses (locating the crews and the efforts) for the energy services of the national companies of Grupo EPM and the affiliated company ENSA, in Panama. Another solution put into operation is the anti-theft tool for the energy distribution system: the “intelligent screw terminal block”, a technological development to identify irregularities in electrical installations, as well as the place where they are located.

Additionally, it is worth highlighting the start of the integrated operation of the power transmission and distribution networks, as part of the **Control Centers Consolidation** project, with the possibility of operating a department’s system from any affiliated company, in case of contingency in the territory. Awarding the contract for the **purchase of energy of Grupo EPM for the years 2020 and 2021** was another achievement that made it possible to standardize both the price and the level of exposure (purchase on the stock exchange) for all the group’s energy distribution companies. Moreover, the EPM generator sold a good amount of its energy in market conditions, favoring the competitiveness of the companies of the group.

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<sup>4</sup> National affiliates: CHEC (235 MW) and ESSA (18 MW) represent 7.1% of the generation capacity of the group.

<sup>5</sup> International affiliates: CURUROS (109.6 MW) and HET (31.8 MW) represent 3.1% of the generation installed capacity of the group.

<sup>6</sup> UNDP: United Nations Development Programme.

<sup>7</sup> MASER: Associated Municipalities of the Subregion of Río Negro-Nare Reservoirs.

On the other hand, the **Uniform Conditions Agreement** was homologated in all the national energy companies of Grupo EPM and, within the framework of the **Measurement Code** project, a milestone was achieved in the availability of the documents, procedures, and formats that will make it possible to comply with Resolution 038 of 2014 of the CREG, which defines and establishes new responsibilities in the process of managing measurements for energy companies in Colombia. The purpose is, among other things, ensuring customers and users of electrical energy an exact and reliable measurement in compliance with the best standards of quality, systematization, standardization, and traceability.

## Water and sanitation

**EPM** obtained record results in the integrated **management of Non-Revenue Water (NRW)** through strategies aimed at reducing technical and commercial losses, obtaining a score of 30.79% for the year. In terms of the Loss Rate per Billed User – LRBU, the result was 6.26 m<sup>3</sup>/billed user/month. In addition, the company updated its certification to ISO 9001 Quality Management System, under the new guidelines of the 2015 version, for the provision of water and sewerage services.

**Aguas del Oriente** managed to **reduce losses** by 68%, reaching 2.29 m<sup>3</sup>/billed user/month; whereas **Aguas de Malambo** strengthened the **commercial management** by means of a new financing plan called “Pay According to Your Needs”, which seeks to improve collection conditions according to the possibilities of customers and users. Additionally, **domestic metering was increased**, reaching 75% at the end of the year, thanks to the articulation of resources of Fondo Fuente de Vida, the Atlántico Governor’s Office, and Aguas de Malambo. **Aguas del Atrato**, in the municipality of Quibdó, improved the **continuity of the water service**, going from 55% to 67%; what is more, in some sectors, the service is already available 24 hours a day.



Taking advantage of the expertise of the affiliated company **Ticsa**, EPM developed the modernization projects and the expansion designs of the **San Fernando wastewater treatment plant (WWTP)**, as well as the the sludge treatment project for the Manantiales, Caldas, and Ayurá water purification plants. In Mexico, the water filtered and purified by reverse osmosis started to be supplied to the PEMEX refinery.

## Gas

One of the most important achievements in this field was the **development of ring extensions in an unconventional way**, with engineering solutions that made it possible to serve more than 3,000 customers and users in Las Independencias, in the district 13 of Medellín. In addition, within the framework of the Parques del Río project, progress was made in the construction of 2,000 meters of new pipes to make the connections without interrupting the service.

During 2017, the company received 71,000 new customers and users in Antioquia, thus **consolidating its expansion outside Valle de Aburrá** and reaching 124 towns in the department of Antioquia. This way, the company becomes the second largest distributor in the country, with a national participation of 13%.

## Business development projects

For Grupo EPM it has been a priority to deliver the maximum benefit to all its stakeholders and, for this reason, different projects have been developed aimed at improving the management, governance, competitiveness, and productivity of the entire organization. The main advances of these projects are described below:

As part of the Implementation of the **Supply Chain** project in Grupo EPM, the organization put into operation the tool for managing the strategic purchases in EPM. This tool, together with other actions, generated benefits for COP 330.78 billion.

With the **Field Productivity** project, the group obtained **benefits for COP 47.85 billion**, thanks to the implementation of improvements in loss, customer service, and expansion processes in CHEC and EDEQ. For their part, CENS and ESSA implemented the maintenance opportunities. Regarding water and sanitation, the use of suction and pressure equipment for cleaning sewerage networks was optimized, new models of supply and inventory management were set in motion, and the manufacture of brushes was implemented in Emvarias. In addition, an important milestone was achieved with the **implementation of the tool to optimize field work**.

Significant progress was made in the **Asset Management** project both in EPM and the group's energy affiliates, reaching **COP 18.70 billion in benefits** and recognizing its importance as a value lever. The main achievements include the **implementation of the information system to manage the asset lifecycle**, the standardization of practices with the affiliated companies, and the incorporation of business rules for asset management into the process model.

In the **Shared Services Center**, the implementation of the document management tool for official communications and bills in the national subsidiaries was completed and new transactional services were introduced into the financial, administrative, and human talent areas in national affiliates, generating **COP 4.87 billion in benefits**. Additionally, thanks to the practices implemented in the project, EPM Colombia was included in the top 12 of the 2017 Workflow Management Coalition Global Awards for Excellence in Business Process Management (BPM).

As part of the digital transformation, the **Digital Connection** project has generated **savings close to COP 6.55 billion**, thanks to the **implementation of Office 365**, which has improved collaborative work and productivity in the business group; moreover, the virtual desktop platform was updated with a current and robust solution that makes it possible to expand and improve the service quality.

The **New Biller Machine Version** was also successfully implemented, achieving better processing times compared to the previous version, as well as improvements in the performance of online billing and prepaid energy.

The **Human Development Program**, for its part, was in charge of designing and defining the human development model and each of its components (**Human Planning, Recruiting Talent, Quality of Life, Developing Talent, Performance, and Recognizing Talent**), as well as the technological tool that supports the model. The program was also responsible for implementing the second phase in EPM and the first phase in the national energy affiliates, in order to support the processes of organizational structure management, people management and profile management, objectives, and performance. Besides the **economic benefits** that amount to **COP 815 million**, the project generated qualitative benefits such as information availability, reliability, and integrity for making decisions on human development matters.

As part of the project for the **Internal Renovation of the EPM Building**, during 2017, the organization made use of the 5th and 10th floors and the south side of the 12th floor. The 4th floor was reconditioned and a food court was enabled at the south side of the 11th floor, in order to offer different gastronomic options to our collaborators. The renovation process of the 6th floor was also started and is expected to be completed by the end of the first quarter of 2018.



## Corporate governance

2017 was a year to consolidate the group's Corporate Governance model. Proof of this is the **Relations Framework Agreement signed, ten years ago**, by EPM and the Municipality of Medellín, and that today is symbol of governance and guarantee of transparency, technical rigor, and administrative and financial autonomy, allowing EPM to operate with quality and respect. This agreement demonstrates that Corporate Governance is a key factor in business competitiveness and sustainability, which involves advantages that transcend the financial, and helps find the balance among ownership, direction, and management for a company of public nature.

Among the main decisions associated with ownership, we highlight the provisions of the Council of Medellín in relation to the **transfer of an item of the assets of the company to the General Budget of the Municipality of Medellín** during the fiscal periods of 2017 and 2018, to the value of COP 600 billion, as a result of the **sale of the shareholding in ISAGEN S.A. E.S.P.**<sup>8</sup>. EPM transferred the value agreed for **2017**, that is, **COP 300 billion**. In addition, it is worth mentioning that EPM has fully complied with the obligations described in the Agreement, in relation to the **transfers to the Municipality**, which in 2017 amounted to **COP 550,437,713,628**<sup>9</sup> under **ordinary surpluses**. Additionally, **COP 458,698,094,690**<sup>10</sup> was transferred under **extraordinary surpluses**.

As for the **EPM's Board of Directors**, the challenge was to strengthen the cohesion among its members and preserve the alignment of expectations between the Board and the Management, for which an **agenda was defined with key topics** that were addressed during the year with the participation of external experts to promote trend analysis.

In terms of **strategic committees**, the Directorate Committee and the Planning Committee were merged into the **Management Committee**. Likewise, the **Ethics Committee** was created and the **Code of Ethics** was updated and adopted by all the companies that make up Grupo EPM.

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<sup>8</sup> Agreement No. 32 of 2017

<sup>9</sup> Reported as relevant information before the Financial Superintendence of Colombia on May 31, 2017

<sup>10</sup> Reported as relevant information before the Financial Superintendence of Colombia on December 14, 2017

The **affiliated companies** strengthened its corporate **governance standards** during 2017 and continued to develop activities framed within the **plan of engagement with partners**. Some **statutory reforms** were also implemented and the **Rules of Procedure of the Board** were unified for all the national affiliated companies. Regarding the group's shareholding composition, it is worth mentioning the separation of transmission and distribution assets in Chile, due to regulatory changes that gave rise to **EPM Transmisión Chile S.A.**, as well as the acquisition of 100% of the shares of **Empresas Públicas de Rionegro (E.P. Rio)**<sup>11</sup>; both companies adhered to the **Governance Agreement**—mechanism that promotes the unity of purpose and direction of the group and the exchange of services in order to maximize the competitive advantages.



## Engagement model

Within the strengthening of the **Group Engagement Model**, we highlight the design of the Grupo EPM's Corporate Core Committee, which focuses on five key missions: **strategic leadership, capital, identity, capabilities, and control**; as well as on the identification of the main responsibilities and decisions in which the group's businesses and corporate services intervene, in order to define the participation and contribution of the affiliated companies in these matters.

Another important aspect is the **diagnosis and evaluation** process carried out in 100% of the **boards of directors of the group**, as well as the implementation of the **training program** for new members. Additionally, different mechanisms have been enabled to favor the construction, deployment, and transfer of knowledge among functional pairs within Grupo EPM, as well as a space to promote the alignment with the members of the boards of the companies that represent EPM, whose goal is to preserve coherence and articulation with the framework for action that guides the corporate core of the group.

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<sup>11</sup> Reported as relevant information before the Financial Superintendence of Colombia. The closing of the transaction was reported on November 1, 2017



## Information technology

As part of its strategic planning, Grupo EPM assumed the responsibility of entering harmoniously in this **digital age** with all the challenges it represents, and identified the emphases on which efforts will concentrate to achieve the transformation: **connectivity and collaboration, digital services, information and security, and support to the organization** in growth and development.

Regarding these emphases, an important milestone was achieved in 2017 with the performance of a consultancy that evaluated the **strategy, operating model, governance, architecture, and organizational structure of IT**. It was also possible for all the affiliated companies to acquire **technological communication and collaboration tools (Office 365)** that integrate and promote interaction as a business group. The management of the group's data network was unified to increase efficiency and consolidate platforms, and **cloud computing services** were implemented, so that EPM can agilely access business solutions with savings by 15% compared to traditional infrastructure costs.


In order to establish the capacities that allow the company to manage and obtain the maximum benefit of the information produced and/or required for its transactional processes and, especially, for decision-making, a data lake was built to be used as an **integrated information source**. The **scoring model** for EPM and the national affiliates of the group was unified, generating annual savings close to COP 1.80 billion, compared to the costs of the outsourced service and, in the same way, the **predictive analytics software was implemented**. A road map was also designed with the opportunities for advanced analytics that can be developed to enhance the use of data and improve some processes.

With the purpose of minimizing, in a sustainable way, the critical strategic risks that may affect the information assets and cyber-assets of the key business processes, authorization was obtained to execute the El Centinela project; as well as the approval, homologation, and publication of the policy and guidelines for **information security and cybersecurity** for Grupo EPM and the adjustment to the business rules related to this matter.

Similarly, access control and monitoring equipment for operational technology was acquired and put into operation, security control measures were implemented to minimize the risk of cyberattack, measures were defined to protect mobile and portable vice presidents' equipment, and actions were taken to comply with the provisions of Online Government (decree 2573).


During 2017, progress was made in the **construction of the Digital Company**, with an emphasis on the definitions of technology architecture, as well as on the exploration and experimentation of methodologies and work models focused on innovation.

In the **technological architecture** field, the business and technology capacities required in the organization were defined. In terms of technological capabilities, two fundamental technological architecture platforms were defined: the component for managing security and access to all digital services and the tool for internal use of technology that will make it possible to manage application programming interfaces, promoting co-creation and versatility in development and administration.



On the other hand, aiming at exploring and trying **innovation methodologies**, the work was based on a scheme made up of techniques tested around the world, in which employees were trained and whose implementation was started in two multidisciplinary teams.

According to the provisions of Article 1 of Act 603 of 2000, which modifies Article 47 of Act 222 of 1995, relating to intellectual property and copyright on the use of legal software, EPM develops and performs periodic controls of various kinds, implemented by the Information Technology Management and evaluated by the Vice Presidency of Corporate Auditing, in order to ensure **compliance with the principles of legality in the use of software**, in accordance with the provisions of Circular Letter 12 of 2007, modified by Circular Letter 017 of 2011, of the Special Administrative Unit, Colombian National Directorate of Copyright (DNDA).





## Growth

As part of the strategy for the growth of Grupo EPM, the following was achieved during 2017:

### Infrastructure projects

#### Ituango Hydroelectric Project

This project is not only a transcendental infrastructure work for Colombia, but also a **regional development** initiative that benefits 12 municipalities directly and over 160,000 people in its area of influence. In 2017, COP 1.7 trillion was invested, for a total investment, since the beginning, of **COP 7.8 trillion** in the construction of this work that **will contribute 2,400 MW to Colombia**.

The **progress** of the project was **80.5%** and is reflected in the following:

- Progress of 75% in the dam filling with 15,111,668 m<sup>3</sup>.
- Progress of 97% in the excavation of the spillway and progress of 82% in the works with concrete of the spillway.
- Progress of 92% in the north zone and 49% in the south zone of the works with concrete in the mechanical room.
- Entrance of electromechanical equipment through the Puerto Valdivia - dam road.

As of 2017, COP 515 billion has been invested in the environmental, social, and sustainability management and COP 61 billion, in lands and easements. Likewise, around 11,400 direct jobs and 26,000 indirect jobs have been generated.

The first generating unit will start operations in the last three months of 2018.



## Aguas Claras: EPM's waste water treatment plant park

As part of the Medellín River Sanitation and Wastewater Management Plan, progress is made in the construction of the Aguas Claras Waste Water Treatment Plant, designed to treat an average flow of 5 m<sup>3</sup>/sec with a capacity to remove 123 t/day of biochemical oxygen demand (BOD<sub>5</sub>) and 120 t/day of suspended solids. This **will remove over 80% of the polluting particles of the water.**

The project included the construction of a 7.7-km-long diversion tunnel that will transport the waste water until the plant and 6.5-km pipe branches to splice the existing pipes to the tunnel. The plant also includes the biosolid drying system generated at the Bello and San Fernando WWTPs, with a capacity for 400 t/day, which guarantees the final disposal of biosolids according to the current regulations.

As part of the commitment of the project to the environment and the communities, the Plaza del Agua (Water Square) was built to go beyond the vision of the river sanitation, which becomes, rather than a mere infrastructure work, a space for the active interaction of the community.

In 2017, COP 210.38 billion was invested, for an accumulated investment of **COP 1.3 trillion** and a total **progress of 91.2%** since the beginning of the works. The following stands out:

- 91% in the construction of the treatment plant.
- 68% in the construction of biosolid drying system.
- 100% in the construction of Interceptor Norte (north diversion tunnel) and pipe branches.

## Nueva Esperanza Project

EPM completed the challenge of developing, as part of the National Transmission System (abbreviated STN in Spanish), the Nueva Esperanza power transmission project that started operations on May 12, 2017, and generated 475 jobs. COP 25.18 billion was invested during 2017 and **COP 389.67 billion**, since the beginning of the project, which has contributed to the reliability on the electrical grid of Bogotá and Cundinamarca. This project was marked as **National Project of Strategic Interest** (abbreviated PINE in Spanish) thanks to its great importance for Colombia.

Thanks to an excellent management with the national government, municipal authorities, community leaders, and judicial authorities, EPM offset the difficulties caused by the disagreement of the community (21 municipalities of influence) in the construction of the lines and the delays in the processes of imposition of easements by the courts.

The project generates an estimated yearly income of COP 5.11 billion (in COP of December 31, 2009) for 25 years.

## Bello–Guayabal–Ancón transmission line

This power transmission project that was developed to improve the **reliability on power supply** in Valle de Aburrá, strengthen the National Transmission System, offer greater capacity to the **transportation of power generated in northern Antioquia**, and benefit millions of Colombians in the rest of the country, started operations on September 23, 2017.

COP 69 billion was invested during 2017 and **COP 148.39 billion** have been invested since the beginning of the works, generating 217 direct jobs. This project increases the flexibility of operations in the north area generating units in the department of Antioquia, as well as the power export limit and the safety in serving the demand of the metropolitan area and the rest of the country.

The project generates an estimated yearly income of COP 29.73 billion (in COP of December 31, 2013) for 25 years.

## Valle de San Nicolás Project

The aim of this project is to **provide the services of drinking water supply and waste water** sanitation in the rural and suburban sectors of the center-western area of Valle de San Nicolás and the municipality of Envigado (municipalities of influence: El Retiro, Rionegro, and Envigado).

COP 19.61 billion was invested in 2017 and **COP 145.83 billion** has been invested since the beginning of the works, generating 187 direct jobs. The **progress** of works is **86%**, not including the corresponding sanitation of the municipality of Rionegro.

The most notable achievements of the year include the completion of the designs for waste water collection and transport in the Don Diego sector and the municipality of El Retiro and the designs for the pumping system associated with the Carrizales - El Escobero WWTP and the pumping and discharge network of the Villa Elena - El Retiro WWTP.

## In Eastern Antioquia

EPM acquired **100%** of the **shares of E.P. Rio** in eastern Antioquia with the purpose of integrating to the EPM system the service provision of the urban area of the municipality of Rionegro with its urban and rural expansion areas. Therefore, EPM committed to invest the amount required, which is approximately COP 550 billion.



For the water and sanitation business, Aguas del Oriente invested COP 143 million of which COP 36 million was allocated for the replacement and modernization of the pumping system of the water purification plant—thus increasing energy efficiency—and COP 107 million, through an inter-administrative agreement with the El Retiro Mayor's Office, for the project of pedestrian works and modernization, expansion, and replacement of 345 meters of networks.

## In Urabá

As for growth in **Urabá**, where 76% of users belong to strata 1 and 2, resources from external sources have been used with the purpose of closing the gaps of water and sewerage supply and keeping the rates for customers and users invariable. In addition, along with the Ministry of Post-Conflict and the Territory Renewal Agency (abbreviated ART in Spanish), EPM managed to impact a matter of public policy making that the government included the sector of **drinking water and sanitation** in the **Obras por Impuestos** (Works instead of Taxes) program.

A number of 3,168 new customers and users connected to the water supply service in 2017, for a total of 71,676 in this region. Currently, the service has a continuity of 24 hours in six of the seven systems. Likewise, in the municipality of Turbo, 33% of customers and users already have the service 24 hours, which benefits approximately 14,581 people. The **aerial water piping pilot** in the same municipality has a **progress of 80%**. A number of 3,526 new customers and users connected to the gas service, for a total of 54,923; and 6,680 new customers and users connected to the energy service, for a total of 171,400. In addition, 295 homes benefited in 2017 through the Rural Electrification program, for an accumulated of 33,237 families favored.

A **working group of public utilities** was created with **Puerto Antioquia and Puerto Darién** to manage the projects' needs regarding public utilities. Additionally, EPM managed the **energy demand for the National Army and Training Base of the USA** government in Turbo and supported the affiliate Aguas Regionales EPM to make progress in the consolidation of the aerial water piping that reaches the naval base, as well as the management and provision of the gas service to the military base, since there were no networks in that sector. Currently, the expansion networks are underway.

Moreover, the **land restitution working group** was formalized in **Aguas de Urabá** to streamline the queries and procedures for the lands of the energy, drinking water, and sanitation projects; these procedures were 100% solved. The integration and coordination meeting (ICM), **Planeación Urabá**, was formalized in order to integrate the energy, gas, water, and sanitation programs and projects of Grupo EPM in the region.

## In businesses

On November 30, 2017, the 230-kV **La Enea substation**, associated with the UPME 05-2016 call, started operations at CHEC, affiliate that ventures again into the transmission market. This project considered the reconfiguration of the 230-kV Esmeralda - San Felipe circuit and the construction of two new line bays at the La Enea substation and is part of the 2014-2028 Generation-Transmission Reference Expansion Plan of the Ministry of Mines and Energy. In this way, the affiliate will be able to capture operation and administrative synergies and an annual income of COP 755 million (value of COP in December 31, 2015).

Likewise, the 230-kV **La Sierra substation** began early operation on December 26, 2017. The substation is associated with the UPME 08-2016 call and will provide increased stability, voltage regulation, safety, and reliability to the region's electrical grid. This project will be able to capture an annual income of COP 457 million (value of COP on December 31, 2015).

EPM consolidated the service offer of **Energy Efficiency** of EPM and Veolia in the Colombian market; covering more than 165 customers in different regions of the country. The offer focuses on buildings of industrial customers, such as hospitals, malls, and offices, as well as networks of heat and cold.

Upon the startup of operations of the **La Alpujarra District Cooling**, EV Alianza Energética S.A. took on the role of its operation and maintenance. Today, the district has clients such as DIAN, the Antioquia Governor's Office, and the Medellín Mayor's Office.



The first power purchase agreement (PPA) was entered into with **Centro Comercial El Tesoro** to **supply solar energy** for a term of 15 years. It is expected to generate around 590 MWh, which is equivalent to the average consumption of 341 homes and represents a replacement of current energy consumption close to 24%. This project was officially launched in January 2018 with an initial power of 100 kWp. It is expected that the remaining 322 kWp will start in July 2018.

As part of the steps towards a smart city, EPM carries out the biggest **public lighting remote management pilot** of Colombia, through which it manages and serves approximately 4,000 light points in Medellín—of the existing 146,000 in the city. The benefits of the remote management include the reduction of maintenance costs, the real-time operation and control, the service availability, the access to reports and records, and the efficient use of energy. This pilot becomes an important step for the integration of public lighting into the smart network systems of electricity distribution.



## Development and innovation

EPM wants to grow with people through innovation and operation efficiency to contribute to the development of sustainable and competitive territories. Therefore, it conceptualizes, incubates, and escalates options to develop new businesses, and identifies and transfers new technologies to strengthen current businesses while optimizing the existing processes. During 2017, the following progress stands out in the different projects and activities:

Through Parque Explora, the **Público Joven** (Young Audience) program was developed, including actions such as **Innovate EPM** (EPM Innovate Yourself), project addressed to students who are finishing college, in which the affiliate CHEC was actively engaged with six projects of universities from Manizales; the **Science, Technology, and Innovation (ST+i) Fair**, where over 1,500 primary and high school students from different regions of Antioquia took part with 420 projects; and **Circuito Solar** (Solar Circuit), where 60 teams, from 13 municipalities of Antioquia, participated.



Thanks to the **EPM Ventures** brand, which will support EPM's private equity fund and miscellaneous investments in entrepreneurship, the following was achieved:

- Two new shares in **startup companies: Kingo**, solar energy company for areas that are not interconnected, with shares of 7.8% and **Reciclados Industriales**, aiming to strengthen the solid waste business, with shares of 19.7%.
- A new project began to evaluate the new technology with floating solar panels, which seeks to make the most of EPM's reservoirs and, in turn, generate solar energy that can be injected into the grid. **Erco Energía S.A.S.**—in which EPM has shares of 40.9%—will be in charge of the pilot.
- In the search of distributed solutions of waters and non-conventional treatments to achieve increased efficiency in that regard, the company **Telemetrik**—in which EPM has shares of 46.9%—will begin the **Remote Measurement System in Water Supply Networks pilot project**.

EPM, Universidad Nacional de Colombia in Medellín, and the company A-MAQ entered into a licensing contract. The latter will be in charge of commercializing a successful technology product of a **rotor diagnostic system** useful for hydraulic power plants.

Finally, a **pilot project to develop innovation skills** was implemented with some current suppliers. In this way, EPM will be able to identify and activate relationships with future suppliers.

## Outlook

Based on analyses carried out by EPM regarding worldwide **transformations** that have been occurring in the **public utility sector** and the implications that this represents for the future of its businesses, a consulting process was developed with the purpose of deepening the strategic vision of the group, projecting the organization in the medium and long terms, and defining the required actions to achieve the BHAG in 2025.

As a result, this consulting process defined a **medium- and long-term strategy** that, while leading to a prevailing entrance of renewable non-conventional energies and the introduction of **new customer- and user-based businesses**, also improves the **efficiency of its current businesses** through the expansion of the group's strategic capabilities in issues related to project **management and digital transformation**.



## Financial Results

### Macroeconomic behavior

In 2017, the national GDP registered an annual growth of 1.8%, slightly below the figure obtained in 2016 (2.0%). The sectors that boosted growth were agriculture (4.9%), financial institutions (3.8%), and social services (3.4%), while the electricity, gas and water supply sector contributed 1.1%, a figure higher than the rate observed in 2016 (0.1%). Moreover, from the perspective of demand, the effects of the tax reform on consumption, the decline in investment expectations on the part of companies, and the deterioration of consumer confidence slowed down growth.

In terms of inflation, at the end of 2017, the PPI of domestic supply stood at 1.86% (compared to 1.62% obtained in 2016) and the CPI stood at 4.09%, lower than the figure observed a year ago (5.75%). Price moderation is mainly explained by the improvement in the food supply thanks to the weather stabilization, the stabilization of the exchange rate, the lower dynamics of domestic demand, and the increase in the intervention interest rate. However, there were upward pressures on prices generated by regulated goods, the increase in VAT, the implementation of the liquor law, and the adjustment of wages.

Regarding currency exchange markets, 2017 was a relatively stable year. The exchange rate of the Colombian peso against the dollar closed the year at COP 2,984 and reached an appreciation of 0.56%. The currency behavior was particularly influenced by the increase in oil prices whose price reached an average value of USD 51 per barrel (dpb), higher than that observed in 2016 (46 dpb). The currency movements were also determined by expectations regarding the Fed's policies, both in terms of interest rates and management of its securities portfolio, and the dynamics of capital flows.

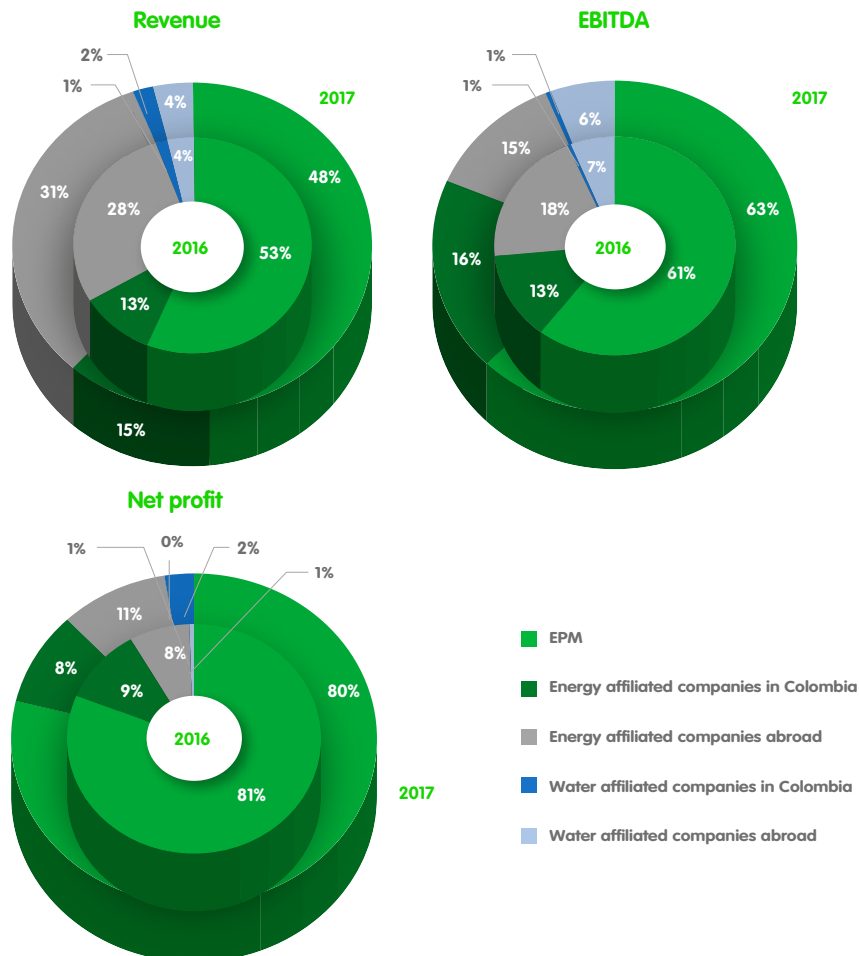
The following are the main macroeconomic indicators of the countries where Grupo EPM operates:

| Item                                                   | Mexico | Panama          | Chile  | El Salvador | Guatemala |
|--------------------------------------------------------|--------|-----------------|--------|-------------|-----------|
| Gross Domestic Product (GDP)                           | 2.30%  |                 |        |             |           |
| Consumer Price Index (CPI)                             | 6.77%  | 0.48%           | 2.27%  | 2.04%       | 5.68%     |
| Producer Price Index (PPI) Wholesale Price Index (WPI) | 4.65%  | 3.94%<br>dic-16 | 8.37%  | -0.11% oct  | N.A.      |
| Exchange rate (end of the year)                        | 19.66  | N.A.            | 615.22 | N.A.        | 7.34      |
| Devaluation/revaluation (annual)                       | -4.64% | N.A.            | -7.80% | N.A.        | -2.36%    |

*WPI: Wholesale Price Index. In the case of Panama, its periodicity is quarterly. To date, the most recent information is from December 2016.*

## Grupo EPM's results

The group achieved revenues amounting to COP 14,950 billion, a 6% decrease; an EBITDA amounting to COP 4,732 billion, 17% higher than that of 2016; and a result of COP 2,327 billion, which means an increase of 25%.



The decrease in revenue in EPM parent company and in the energy affiliated companies in Colombia is due to lower energy sales in the stock market given the price drop. Moreover, in 2016, income from compensation due to the Guatapé power station damage is included. The affiliated companies, ENSA and Delsur, showed an increase in revenue compared to the previous year due to greater energy sales, prices, and customers, and as for Adasa, we highlight the growth in consumption of the unregulated market.

Increase in EBITDA is explained, mainly in EPM, by lower commercial operating costs due to lower prices in energy purchases, lower gas purchases, and the launch of operations of the Nueva Esperanza project.

The international affiliated companies contributed COP 1,028 billion to the consolidated group's EBITDA and the national affiliated companies, COP 812 billion.

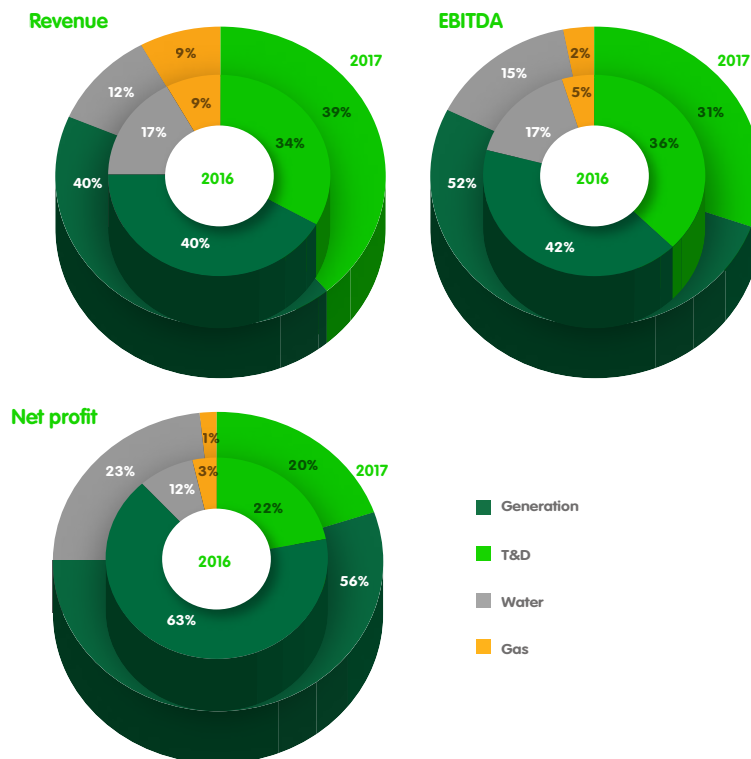
Net profit increased by COP 461 billion due to the operating dynamics of the businesses, which shows a positive variation in EBITDA of COP 696 billion, in addition to lower asset impairment and higher income associated with investments.

The profit of Grupo EPM, COP 2,327 billion, includes minority interest, consolidation records, and equity method with associates.

## EPM's results

EPM achieved revenues amounting to COP 7,423 billion, a 12% decrease; an EBITDA amounting to COP 3,138 billion, 27% higher than that of 2016; and a net profit amounting to COP 2,188 billion, which means a 19% increase.

Although revenues decreased mainly due to a lower price in the generation business and a decrease in sales of the secondary market in the gas business, both in price and quantity, going from 818,470 to 786,316 thousand of m<sup>3</sup> sold, the sales of the generation business increased by 10%, going from 14,003 to 15,411 GWh; the sales of energy to users of the regulated market grew by 2.3%, going from 5,544 to 5,670 GWh; and, in turn, in the water business, consumption increased by around 1%, going from 192,206 to 194,751 thousand of m<sup>3</sup> in provision, and from 192,035 to 194,755 thousand of m<sup>3</sup> in wastewater management.



The generation business achieved an EBITDA amounting to COP 1,671 billion, a 50% increase compared to 2016. Although revenues showed a decrease of 11%, costs and expenses decreased by 36%.

Decrease in revenues is explained by the lower sales of energy in the stock market given the decline in the price due to high competition in the generation business, the high levels of the reservoirs, and the compensation in 2016 due to the accident at the Guatapé power generation plant. Decrease in effective costs and expenses was due to lower purchases of energy in the stock market and gas and lower consumption of gas and ACPM and gas transport as the previous year, we dealt with El Niño and higher thermal generation was required at La Sierra. Additionally, there was a decrease in the wealth tax rate.

The EBITDA of the transmission and distribution (T&D) business was COP 983 billion, with a 5% growth, as a result of higher revenues from the remuneration of the assets of the National Transmission System (abbreviated STN in Spanish) given the entry into operation of the Nueva Esperanza and Bello-Guayabal-Ancón projects.

The water business generated an EBITDA of COP 494 billion, with a 13% increase explained by the implementation of the new pricing framework and the increase in the number of customers.

The gas business obtained an EBITDA of COP 64 billion, with a 48% decrease. In 2017, revenues obtained from this business decreased in the secondary market due to El Niño, and in the regulated and non-regulated markets, there is an increase in the number of customers and in consumption.

Net profit was COP 2,188 billion, with a 19% increase, equivalent to COP 353 billion, explained by the operating dynamics of the businesses, which shows a positive variation in EBITDA of COP 666 billion. It should be noted that although there were lower energy prices, costs and expenses were lower, thus achieving a balance.

Moreover, the performance of the market representative rate (abbreviated TRM in Spanish) resulted in a net income from exchange difference, which was lower than that obtained in 2016. This result is due to the combined effect that the TRM produced simultaneously on two items: financial expenses and financial income in dollars.

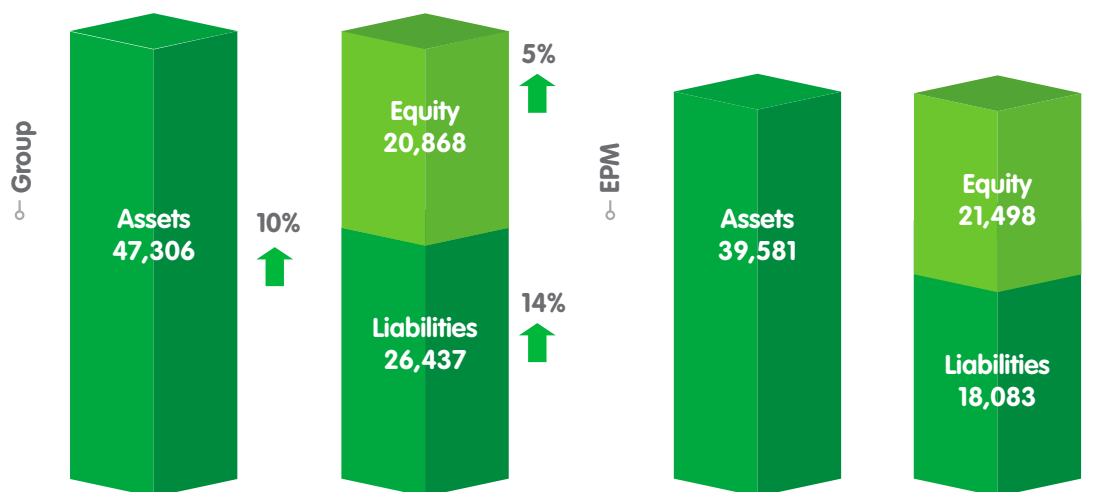
The effect of revaluation in the financial expense items was negative, and this is basically explained by the higher expense generated by the prepayment of debt and the recognition of disbursements of credits in dollars. The effect of revaluation in the financial income items was positive and resulted from the valuation of cash balances and investment portfolio in foreign currency.

The combined result of these effects translates into net income, which indicates that income from exchange differences was greater than expenses.

Regarding financial expenses, the increase observed in the 2016 execution is explained, in part, by the loss generated by reversing the debt coverage accounting for some swaps, which translated into a loss due to valuation of financial instruments at fair value, the settlement of other swaps—events that took place as of November 2017—, and the increase in the long-term financial liability, resulting from the disbursement of USD 440 million from the Club Deal credit, equivalent to COP 1,262 billion approximately, and the disbursement of IDB credits totaling approximately COP 167 billion and intended to finance the Aguas Claras wastewater treatment plant.

## Statement of financial position

In the group, increase in assets was 10%, going from COP 42,954 billion to COP 47,306 billion; liabilities reached a 14% increase, going from COP 23,171 billion to COP 26,437 billion; and equity increased by 5%, going from COP 19,783 billion to COP 20,868 billion. In EPM, increase in assets was 10%, going from COP 35,900 billion to COP 39,581 billion; liabilities reached a 16% increase, going from COP 15,616 billion to COP 18,083 billion; and equity increased by 6%, going from COP 20,284 billion to COP 21,498 billion.



The non-current assets of the group increased by 11%, mainly due to, in EPM, greater investments in infrastructure in the Ituango Hydroelectric Project, due to projects associated with compliance with the service and efficiency standards required by the regulating entity in the water supply and power transmission businesses, and due to the transfer to operation corresponding to the Nueva Esperanza and Bello-Guayabal-Ancón projects.

As for the national affiliated companies, ESSA and CENS, we highlight the investments that contribute to the improvement of the service quality through the construction and modernization of substations and lines; in Aguas Nacionales, the construction of the Aguas Claras wastewater treatment plant continues. As for the international affiliated companies, in ENSA, the highest level of investment was made in substation and line projects; losses were reduced; coverage and quality in new customers were increased; meters were installed; and we also highlight the construction of the corporate building which won an award on Environmental Excellence. In Eegsa, investments focused on the expansion of networks.

EPM holds 90% of the group's total non-current assets. In 2017, investments in infrastructure reached COP 3,706 billion, of which EPM, the parent company, executed COP 2,518 billion; the national affiliated companies, COP 632 billion; and the international affiliated companies, COP 556 billion. Current assets remain stable.

The group's total liabilities increased by 14%. It is worth noting that in October 2017, EPM issued bonds in the international capital market worth COP 2,300 billion, which allowed for the recomposition of the debt in Colombian pesos and thus reduce the impacts derived from the exchange risk. The group's financial debt stood at COP 16,211 billion, with an increase of 9% equivalent to COP 1,312 billion.

In turn, the Debt/EBITDA indicator stood at 3.43 in 2017, lower than 3.50, the limit required by risk rating agencies and banks. The 3.43 in 2017 compared to the 3.69 in 2016 is the result of the increase in EBITDA despite the debt growth, due to the disbursement of the club deal credit for the financing of the company's general investment plan amounting to USD 440 million (COP 1,262 billion).

## Transfers to the municipality

In 2017, transfers to the municipality amounted to COP 1,309 billion, of which COP 550 billion correspond to ordinary transfers and COP 459 billion to extraordinary transfers, plus transfers made due to the sale of ISAGEN shares which amounted to COP 300 billion. The variation, compared to the previous year, in terms of ordinary and extraordinary transfers is 24%, equivalent to COP 193 billion.

## Transfers from the electricity sector

In 2017, 53 municipalities in the Valle de Aburrá, Middle Magdalena, Northeastern, Northern, Western, Eastern, and Southwestern Antioquia's sub-regions and the Regional Autonomous Corporations Corantioquia, Cornare, and Corpourabá received around COP 64 billion. By 2018, it is expected to deliver a total of COP 69 billion from transfers from the electricity sector, a figure that substantially contributes to sustainability and protection of the environment in the regions.



## Credit risk ratings

EPM, in compliance with its engagement plan with investors, continues implementing different practices aimed at keeping credit rating agencies, investors, and the financial market in general informed on all those aspects about the company that are relevant for analysis. The above based on criteria of opportunity, transparency and equality, in accordance with the principles set forth in the corporate governance code.

With regard to credit rating agencies and their opinions on EPM, in 2017, we highlight the increase granted by Moody's to EPM, by raising its international credit risk rating from Baa3 to Baa2; the increase of the local rating of Aguas Regionales from 'A-' to 'A'; and the adjustment of the rating perspective of Los Cururos Wind Farm from negative to stable, these last two granted by Fitch Ratings.

In addition, EPM maintained its international credit rating by Fitch Ratings at 'BBB+' and its local credit rating at 'AAA'; the local credit ratings of CHEC, CENS, ESSA, and EDEQ remained at 'AAA'. These ratings demonstrate the confidence that the company generates in credit rating agencies, which becomes an excellent recommendation for investors in the local and international markets.

The ratings granted by the Fitch Ratings and Moody's favored the viability of the 2017 financing strategy, which included the signing of credit agreements amounting to approximately USD 1.7 trillion—intended to finance the general investment plan and the Ituango Hydroelectric Project—with the international financial sector, and amounting to approximately COP 704 billion—intended to finance the general investment plan of the group's affiliated companies— with local banks.

## Performance and evolution of investments

Grupo EPM has implemented a diversification strategy through 51 companies between affiliated and subsidiary companies in the energy, water supply, and basic sanitation sectors, as well as through companies, such as MaxSeguros, Promobiliaria, Fundación EPM, and the Fondo de Innovación, whose purpose is to leverage activities related to the group's business dynamics. Having a diversified portfolio of investments has allowed the organization to achieve the expected results, which shows its commitment to the social, environmental, and economic dynamics of the regions where it operates.

One particular achievement in 2017 is the incorporation of E.P. Rio to the group, where EPM offers the experience of this company to improve quality standards and develop the infrastructure necessary to ensure a good service for this area of eastern Antioquia.

EPM received, from its affiliated and subsidiary companies, a total of COP 368 billion, of which controlled companies paid dividends amounting to COP 323 billion and non-controlled companies, COP 44 billion.

Aguas Nacionales was capitalized at COP 260 billion to guarantee funds for the completion of the Aguas Claras treatment plant; E.P. Rio, at COP 14 billion and Aguas de Malambo, at COP 13 billion, intended to finance the investment plan; EPM Chile, at COP 11 billion for the creation of the affiliated company, Transmisión Chile S.A, due to regulatory requirements; and EPM Capital México S.A., at COP 4 billion to leverage its debt structure.

In general, the energy affiliated companies in Colombia maintained their performance thanks to the management of costs and expenses, which allowed meeting the goals in a difficult year in which they had to face the fall in prices and the demand for electricity. The affiliates ESSA and CENS showed a historical execution in infrastructure investments, which contributed to improve the quality of the service and bring electricity to the most vulnerable users.

At DECA, the financial results remain the same, having still the best operational indicators of service quality and energy loss index among the power distribution companies of Grupo EPM and entering the power distribution service in new geographical areas associated with Trelec's growth.

At ENSA, the financial results are positive, with a higher EBITDA compared to 2016. The indicators of service quality and reduction of losses improved, and the creation of the affiliated company ENSA Servicios engaged in the provision of technical and commercial services related to power distribution and commercialization was approved. Likewise, Delsur meets the financial expectations in a low-growth and very competitive environment, where the improvement of the quality indicators stands out.

At Los Cururos, great challenges regarding the electricity market in Chile were faced, where processes and projects related to the unification of the Central Interconnected System (abbreviated SIC in Spanish) and the Interconnected System of Norte Grande (abbreviated SING in Spanish) continued, giving way to the National Electricity System (abbreviated SEN in Spanish). Although in a lesser proportion than in 2016, an increase in non-conventional renewable energy projects in the northern and southern areas of Chile was observed. Additionally, the company EPM Transmisión Chile S.A. (EPM-T) was created as a result of the division of Parque Eólico Los Cururos Ltda (PELC) due to a legal requirement when La Cebada substation was declared as an integral part of the Main Transmission System (known today as the National System).

Moreover, growth in Adasa's operating results is due to the work done in revenue since 2015 thanks to the expansion of the desalination plant and the efficient management of costs and expenses in all the company's processes. The company operates the largest desalination plant in Latin America, with a production of 850 liters per second. At Ticsa, the business of plant operation contributed 94%, highlighting the entry into operation of the reverse osmosis water treatment plant built for Pemex, and the construction business contributed 6%, mainly thanks to the projects executed in Colombia. We highlight the development of the affiliated company Ticsa in Colombia thanks to the progress of the San Fernando expansion project and sludge treatment systems in water purification plants (Caldas, Ayurá, and Manantiales).

The water and sanitation companies in Colombia continue in a process of operational stabilization and investment execution to achieve the operational and financial goals required by the regulatory authority.









# Control Environment and Quality Management System





## Quality Management System

At EPM, the quality management policy is the **Integrated Management Policy** approved by the board of directors as recorded on Minutes 1513 of 02/02/2010:

*"EPM performs its management in a comprehensive way and, as a consequence, it operates under strict effectiveness and efficiency criteria in the provision of its services, in order to achieve its goals and those defined by the law and its bylaws, aiming at a balanced satisfaction of the needs of its stakeholders and the effective performance of the company."*

The following is the verification of the Vice Presidency of Human Resources and Technology for the **policy compliance with the requirements demanded by the standard NTCGP 1000:2009**.

| Requirement                                                                                                                                       | Complies<br>  | Accomplishment                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Is it adequate to the purpose for which the entity was created?                                                                                   |                                                                                                  | According to the bylaws, Municipal Agreement 12 of 1998, it is adequate to the corporate purpose.                                                                                                                          |
| Is it consistent with the development plan, the sectoral and administrative development plans, and the internal control system?                   |                                                                                                  | The municipal plans are an input for the integrated planning of EPM and its internal control system; it is consistent with the strategic development of EPM.                                                               |
| Does it include a commitment to meet the requirements of customers, continuously improve, and contribute to the achievement of the state's goals? |                                                                                                  | It is committed to the stakeholders' requirements. For customers and users, there is a Uniform Conditions Agreement (abbreviated CCU in Spanish) establishing the requirements for the provision of products and services. |
| Does it provide a framework for establishing and reviewing quality objectives?                                                                    |                                                                                                  | The objectives of the Quality Management System (QMS) correspond to the objectives in the EPM's Balanced Scorecard.                                                                                                        |

| Requirement                                                                                 | Complies<br>  | Accomplishment                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Is it reviewed in order to be constantly adapted?                                           |                                                                                                | It is reviewed annually. The policies will be analyzed in 2018 according to the internal regulatory model and the existing legislation.                                                      |
| Is it communicated to the public servants and/or individuals who exercise public functions? |                                                                                                | Strategies such as Work Café were developed to learn how to evaluate management systems; the online course script for the QMS was prepared.<br><br>The policy can be found on EPM's website. |

In addition, the internal quality audits found 14% strengths, 13% improvement opportunities, 4% non-compliances, and 69% compliances.

With the purpose of addressing the corporate recommendations to leverage the QMS to the Internal Control System, the actions of the **improvement program**—result of the review by the management of 2016—were formulated. The actions were associated with the implementation of a preventive control for the improvement programs and the strengthening of the program management with practical cases. In 2017, the actions were focused on the formalization of a new source for improvement programs, called Work Environment, and the implementation of a comprehensive and centralized information solution to manage the information of the improvement programs.

From the improvement programs resulting from other sources—other than the review by the management—, there are 7,487 documented corrective, preventive, and improvement actions, of which 2,613 (35%) are closed for this period or before, and 2,425 (93%) of those actions closed had an effective result. The sources with more actions are: Comprehensive Risk Management with 4,240 (57%), Internal Control Auditing with 1,499 (20%), and Work Environment with 863 (12%). Considering the QMS implemented at EPM, in accordance with the Quality Technical Standard for Public Management NTCGP 1000: 2009, it is concluded that the QMS is convenient, suitable, productive, efficient, and effective.

## Control environment

Once more, the role of Corporate Auditing focused on improving and **protecting the value of the organization** through a work plan whose purpose was assurance or independent evaluation and consultancy based on the main risks of the company. The above followed the standards defined by the International Standards on Auditing.

See the details on the evaluation of these systems on **Report on the Control Environment and Quality Management System**.



## Awards and honors

The most notable awards and honors of Grupo EPM in 2017 are:

**International credit rating of “BBB+” and national credit rating of “AAA” granted by Fitch Ratings:** This agency confirmed EPM’s credit rating in both cases with stable outlook, for the fourth year in a row. To confirm EPM’s credit rating, Fitch Ratings considered, among other factors, the low business risk, as a result of diversification in the comprehensive provision of public services. Fitch Ratings also highlights that EPM’s financial profile is strong, characterized by a healthy cash flow, moderate leverage, and good coverage of interest and liquidity.

**International risk rating “Baa2,” granted by Moody’s Investors Service:** This risk rating agency places EPM in the “Baa2” investment level with a stable outlook, thanks to EPM’s financial performance and the reasonable management of its finances.

**CIER International Award:** Among 59 companies of the sector in Latin America, EPM won again this award granted by the Regional Energy Integration Commission for customer satisfaction in the electricity service.

Likewise, according to the different aspects analyzed in the CIER Survey, EPM became the best company in the quality of electricity provision (no interruption, no variation, and prompt resumption), information and communication (notice of interruption, rights and responsibilities, and efficient and safe use), customer service, and billing.

**Caracol Televisión Award for the Protection of the Environment 2017:** The award was granted to EPM for the Water Resource and Biodiversity Management - Water Protection program that integrates initiatives such as BanCO2, Cuenca Verde Water Fund, Forest Development program, compensation and protection, conservation of areas that are property of the company for the protection of hydrographic basin and reservoirs, and public and private alliances.

**Distinction to EPM in Andesco CSR Award 2017:** This award aims to promote and recognize the efforts of organizations regarding corporate social responsibility (CSR) based on the Sustainable Development Goals (SDG). EPM was declared out of competition with the distinction for its excellent performance among 233 participating entities in the national sphere.

**Most admired company of Colombia:** For the third year in a row, EPM was selected as the most admired company of the country, according to the Opinion Panel 2017 held by the firm Cifras & Conceptos. In the national sphere, EPM obtained 11% of the votes in the ranking of the most admired companies and reached first place. The organization also reached that place in the departments of Antioquia, Atlántico, Boyacá, Caldas, Cauca, Huila and Santander.

**Pisingo de Oro Award granted by the municipality of Turbo:** The municipality recognizes the determining management of Grupo EPM in addressing the basic needs of drinking water and sanitation by granting its maximum distinction, the Pisingo de Oro.

**Recognition by ANDI for EPM's Shared Services Center:** With this award in the category of work development, the National Industrial Association of Colombia (ANDI) recognized the indicators of organizational climate reached by EPM in the Shared Services Center, especially those related to employees' motivation, commitment, and performance.

**Ingenio Award 2017 for the software that supports the Prepaid Electricity program:** EPM was recognized during the fifth edition of Ingenio Awards by the Colombian Federation of the Software and Related Technologies Industry (Fedesoft), in the category of Public Utilities, for the software that supports the Prepaid Electricity program developed by the Colombian company AXEDE. With this software, EPM provides electricity under the prepayment modality to customers who do not have access to the service due to defaulting conditions.

**CIPA Award of Journalistic Excellence 2017:** In the Television category, EPM was recognized for the institutional program Camino al Barrio (On Our Way to the Neighborhood) for the episode on the Boston neighborhood.

**National Planeta Azul (Blue Planet) ecology award granted to Fundación EPM:** Fundación EPM was selected in the business category for its project Water for Education, Education for Water. It won second place in the award granted by Banco de Occidente.

**CIER International Award granted to EDEQ in gold category,** for customer satisfaction with the energy service in the segment of less than 500,000 customers.

**Recognition granted to CENS for its six months of preparation to become an innovation-certified company:** The distinction was granted by the Cúcuta Chamber of Commerce, Colciencias, and the international company IXL Center.

**Quality of Water Certificate granted by the Regional Secretary of Health and Social Protection of Antioquia to Aguas Regionales:** The water provided by this affiliate of the group meets the established parameters of the current regulations set forth in Article 8 of Decree 1575 of 2007 and Article 15 of Statute 2115 of 2007 of the Ministries of Health and Social Protection and Environment and Sustainable Development.

**ISO 9001 Quality Management System Certificate, version 2008, for the Aguas del Atrato project** granted by the Colombian Institute of Technical Standards and Certification (ICONTEC).

**Environmental Excellence Award 2017 in the category of Technology Innovation** granted to ENSA by the Ministry of Environment for the sustainability and technology innovation standards of its new administrative offices.



# Report on the Control Environment and Quality Management System

Grupo·epm®











# Report on the Control Environment and Quality Management System

## Analysis of the quality management policy

At EPM, the quality management policy is the Integrated Management Policy approved by the board of directors as recorded on Minutes 1513 of 02/02/2010:

*"EPM performs its management in a comprehensive way and, as a consequence, it operates under strict effectiveness and efficiency criteria in the provision of its services, in order to achieve its goals and those defined by the law and its bylaws, aiming at a balanced satisfaction of the needs of its stakeholders and the effective performance of the company."*

The policy compliance with the requirements demanded by the standard NTCGP 1000:2009 is verified below.

| Requirement                                                                                                                                       | Complies<br>  | Accomplishment                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Is it adequate to the purpose for which the entity was created?                                                                                   |                                                                                              | According to the bylaws, Municipal Agreement 12 of 1998, it is adequate to the corporate purpose.                                                                                                                          |
| Is it consistent with the development plan, the sectoral and administrative development plans, and the internal control system?                   |                                                                                              | The municipal plans are an input for the integrated planning of EPM and its internal control system; it is consistent with the strategic development of EPM.                                                               |
| Does it include a commitment to meet the requirements of customers, continuously improve, and contribute to the achievement of the state's goals? |                                                                                              | It is committed to the stakeholders' requirements. For customers and users, there is a Uniform Conditions Agreement (abbreviated CCU in Spanish) establishing the requirements for the provision of products and services. |
| Does it provide a framework for establishing and reviewing quality objectives?                                                                    |                                                                                              | The objectives of the Quality Management System (QMS) correspond to the objectives in the EPM's Balanced Scorecard.                                                                                                        |
| Is it reviewed in order to be constantly adapted?                                                                                                 |                                                                                              | It is reviewed annually. The policies will be analyzed in 2018 according to the internal regulatory model and the existing legislation.                                                                                    |
| Is it communicated to the public servants and/or individuals who exercise public functions?                                                       |                                                                                              | Strategies such as Work Café were developed to learn how to evaluate management systems; the online course script for the QMS was prepared.<br><br>The policy can be found on EPM's website.                               |



## Quality internal audit outcome

In 2017, the contract with Training Corporation Ltda. continued to “provide professional services for the execution of internal audits to EPM’s management systems.”

The firm audits simultaneously the QMS, in accordance with the Colombian Quality Technical Standard for Public Management NTCGP 1000, and the management systems certified by ISO 9001 and verified in accordance with the Colombian Quality Technical Standard ISO/IEC 17025.

The consolidated findings correspond to 14% strengths, 13% improvement opportunities, 4% non-compliances, and 69% compliances. The main strengths, non-compliances, and improvement opportunities identified by the auditors are the following.

| N° | Strengths                                                                                                                | Non-compliances                                                                                                                                                    | Improvement opportunities                                                                                                                               |
|----|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | The human resource management fosters a corporate philosophy supported by the action-based performance management model. | Some work areas, clearances, and dangerous areas of machines and facilities are not delimited and there are not enough circulation areas and emergency exit signs. | Control and improve access to documented information.                                                                                                   |
| 2  | EPM’s executives are committed to quality management and internal control.                                               | There is not enough control of documents and records.                                                                                                              | Analyze indicators’ data to identify improvement actions.                                                                                               |
| 3  | New demands of management models are integrated for a comprehensive management.                                          | For the maintenance process supported by job orders, work permits were not renovated.                                                                              | Record improvement actions as a result of process management.                                                                                           |
| 4  | Those responsible for processes are proactive regarding the culture of improvement.                                      | The performance of external suppliers is an important input of evaluation for the review by the management of the QMS.                                             | In the metrology, identify the acceptable values by manufacturers for equipment tolerance in order to expedite the verification of calibration records. |

| N° | Strengths                                                                                            | Non-compliances | Improvement opportunities                                                                                                                             |
|----|------------------------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5  | New technologies are implemented in the process of illumination services.                            |                 | Record the prioritization criteria during routine maintenance activities to minimize the risk of errors in programming.                               |
| 6  | The customer satisfaction indicator outcome proves the compliance with their needs and expectations. |                 | For the management of changes, include and plan those related to the information systems in order to identify their impact and possible consequences. |

## Improvement programs

### Improvement programs as a result of the review by the management of the previous year

With the purpose of addressing the corporate recommendations to leverage the QMS to the Internal Control System, the actions of the improvement program—result of the review by the management of 2016—were formulated:

- Implement preventive control for the improvement programs: The continuity of these actions activates rules and alerts in the ERA Kairos information system—which supports the planning and monitoring of such programs—for the filling out of fields such as dates, efficacy, and monitoring, improving quality, completion, and availability of the program information.
- Strengthen program management with practical cases: A review of the improvement program methodology guide begins in order to include these cases.

Likewise, as initiatives from the CEO's office, the following were formalized:

- A new source for improvement programs called Work Environment, with the purpose of strengthening the working environment at EPM, in aspects associated with the analysis of measurement results of i) organizational climate and commitment, ii) quality of life and psychosocial risk, and iii) effectivity of internal communication.
- An initiative to implement a comprehensive and centralized information solution to manage the information of the improvement programs, showing benefits of optimization of efforts for monitoring as well as improvement in the traceability of programs and the generation of reports.

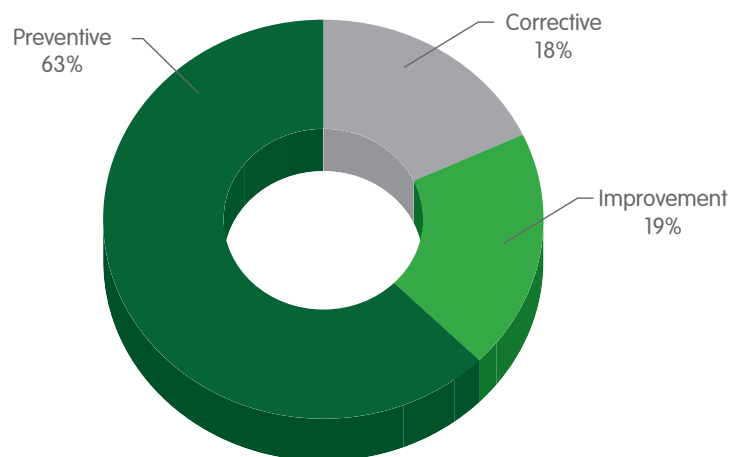
## Improvement programs as a result of other monitoring of the previous year

EPM has improvement programs from other sources other than the review by the management, namely:

|                                               |
|-----------------------------------------------|
| External Management System Auditing           |
| External Auditing / Tax Auditing              |
| Internal Control Auditing                     |
| Internal Management System Auditing           |
| External Assurance Supplier Auditing          |
| Control and Management Self-Assessment        |
| Office of the Comptroller General of Medellín |
| Work Environment                              |
| Internal Control System Assessment            |
| Asset Management                              |
| Comprehensive Risk Management                 |
| Process Management                            |
| Occupational Safety and Health                |
| Transparencia por Colombia                    |

The number of documented corrective, preventive, and improvement actions of these improvement programs valid for 2017 is 7,487. A total of 2,613 (35%) are closed for this period or before, and 2,425 (93%) of those actions closed had an effective result.

### Type of action



The sources with more actions are: Comprehensive Risk Management with 4,240 (57%), Internal Control Auditing with 1,499 (20%), and Work Environment with 863 (12%).

## Conclusion of the status of the Quality Management System

The QMS implemented at EPM, in accordance with the Quality Technical Standard for Public Management NTCGP 1000: 2009, is convenient, suitable, productive, efficient, and effective.

| Status                                                                                                 | Conclusion of the status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Convenient</b><br/>Is there alignment of the QMS with the organizational goals and policies?</p> | <p>The QMS is in line with the goals and policies defined by EPM. The objectives of the QMS correspond to the objectives in EPM's Balanced Scorecard.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p><b>Suitable</b><br/>Are the actions for the QMS sufficient to meet the requirements?</p>            | <p>Generally, the customer, legal, corporate, and regulatory requirements were met. However, an incident occurred at the Playas hydroelectric power station, affecting the power generation business operation; 33% of its capacity had been restored by December.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <p><b>Productive</b><br/>Are the planned activities carried out and the planned results achieved?</p>  | <p>According to the emphasis of the CEO, the following indicators were met:</p> <ul style="list-style-type: none"> <li>• Growth: EBITDA and net profit.</li> <li>• Coverage: solutions for homes, United for Water program and purchasability.</li> <li>• Care for the environment: water protection and CSR trajectory.</li> <li>• Closeness: loyalty, claims.</li> </ul> <p>Although the planned activities were carried out, results were not achieved in:</p> <ul style="list-style-type: none"> <li>• Consolidation: unfulfillment of milestones in some projects of corporate transformation and poor execution of some infrastructure projects.</li> <li>• Closeness: increase of complaints by 4%.</li> </ul> |

**Status**

**Conclusion of the status**

**Efficient**

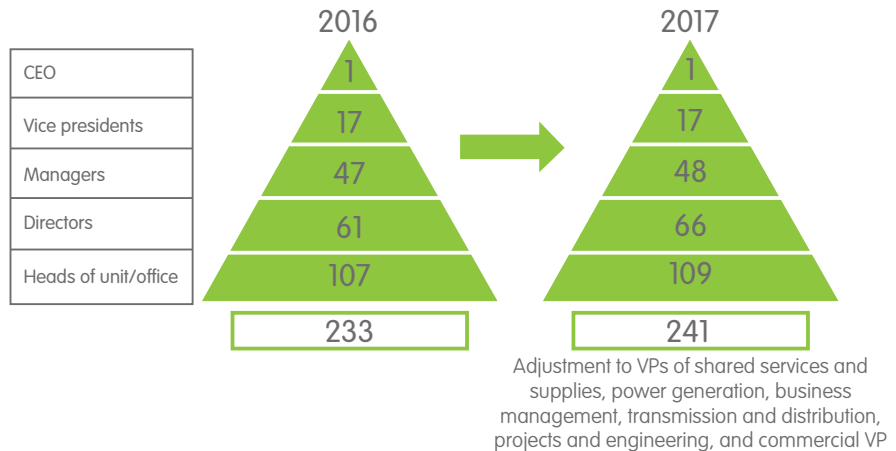
Is there a relation between the result achieved and the resources used?

It is efficient. The indicators—associated with EBITDA margins and net profit—that give value to the organization were met, exceeding the expected values.

Achievements in the planned activities and the used resources in process management include:

- Modeling of levels 3 and 4 (activities and tasks) of 97% of processes (74) in the BHAG information system.
- 67% migration of the process documentation to ENTER.
- Word Café event—held by those responsible for and allied with Organizational Development—whose purpose was to understand and learn how to evaluate management systems.

As for the executive human resources, the structure was adjusted as follows:



The increase by 8 of the executive positions improved the management and fulfillment of financial indicators.

Likewise, 935 positions were created: 335 for projects, 195 for outsourcing solutions, 110 for occupational relocations, and 295 for operation growth.

| Status                                                                                                                                                 | Conclusion of the status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Effective</b></p> <p>Is there an impact of the management in achieving the planned results and in managing the resources used and available?</p> | <p>It is effective. The fulfillment of indicators impacts the generation of value for EPM.</p> <p>EPM was recognized by the Regional Energy Integration Commission (abbreviated CIER in Spanish) among 59 companies of the sector in Latin America with the CIER 2017 Award in the silver category, which measures the satisfaction of residential customers of electrical energy.</p> <p>The complaints caused by delays in the water service connection, break permits for the gas connection, and service in rural areas were solved in a timely manner leaving a positive customer satisfaction.</p> |

## Control environment

Once more, the role of Corporate Auditing focused on improving and protecting the value of the organization through a work plan whose purpose was assurance or independent evaluation and consultancy based on the main risks of the company. The above followed the standards defined by the International Standards on Auditing. Among other aspects directly related to the control environment of EPM, it is worth highlighting the following management during 2017:

- In favor of the Integrated Planning Cycle, meetings were held with each one of the vice presidencies and the heads and liaisons of the planning, budget, and contracting areas, who delved into the knowledge of the sessions and received all the accounting, fiscal, budgetary, and contracting guidelines as training to prepare the 2018-2021 investment program and the budget and contracting program for 2018.
- For the first time, EPM started the development of a report of results of the surveys that measure the perception of the quality of life and psychosocial risk, the effectivity of internal communication, and the organizational climate. This confirms the commitment to transparent communication, a warm and trustworthy climate, and good balance between work and personal life resulting in quality of life.
- Progress was made in actions to strengthen the work environment including activities of experiential communication for heads and collaborators, strengthening of the mechanism of primary groups, development of the Naturalmente (Naturally) strategy for the EPM people, improvement of the communication mechanisms with members of the support curve, and strengthening of the platform of internal dual communication.
- The management of the company's executive leadership was a priority, making that the administration styles evolved towards more familiar models based on conversations that transcend actions and knowledge to achieve a deeper understanding of the being. As a result, closer relationships can be established contributing to a better work environment and the introduction of the culture of collective construction and team work.

- Through improvement programs per areas, variables such as organizational coherence, organizational clarity, and manager support were encouraged since they have a strong impact on the work environment in general. Thanks to this, there was a tendency to create more united teams.
- A new Code of Ethics for all the EPM business group was launched, engaging all the collaborators in a participatory and interactive way and highlighting, in a ludic and experiential way, the values and principles that are part of this philosophy characterizing the actions of those who make up the business group.



**Corporate  
Governance**

**Grupo·epm<sup>®</sup>**





# Overview

## Report's institutional overview

Grupo EPM, along with the 50 companies that comprise it, is present in six Latin American countries: Colombia, Chile, Panama, El Salvador, Guatemala, and Mexico, EPM—a 100% public company—being the parent company, located in Medellín, Colombia. The business group provides public utilities through seven business lines: power generation, transmission, and distribution; gas distribution; water supply; sanitation; and solid waste management. At the end of 2017, revenues of Grupo EPM amounted to COP 14.95 billion.

As an exercise of transparency and commitment with its stakeholders and investors, Grupo EPM publishes its annual corporate governance report, highlighting the main practices that it has been implementing and strengthening during the period. This report is articulated with the sustainability and transparency approach that EPM and its affiliated companies implement in their management.

## Conceptual framework of Grupo EPM's corporate governance

The corporate governance model of Grupo EPM responds to the challenges arising from the growth and consolidation of the business group and includes actions that increase the level of maturity of its corporate governance through the development, training, and dissemination of good practices in EPM and in companies of the group. (*Annex 1. Governing bodies and framework for action of the corporate governance model*).

The implementation of provisions, practices, and measures that delimit the appropriate balance between ownership and management of both EPM and its affiliated companies are relevant to remain on a path of improvement to ensure sustainability, growth, investors' rights, transparency, and ethics in our actions, as well as a balanced access to information for our stakeholders.



*Corporate governance team (left to right): Luz Stella Ramírez Pérez, Erika María Zapata Suaza, Juan David Henao Cálad, Paola Andrea Escobar Echeverri, Carolina López Mejía, María Marulanda López, Meliza Vélez Zuluaga.*

## Corporate governance at EPM

As the leading company of the group, EPM is regulated by a structure of governing bodies that are articulated with a control architecture under a model that combines the legal requirements due to its 100% public nature and the corporate governance practices implemented nationally and internationally for business groups.

Taking as a reference the elements of balance and transparency between its governing bodies and regarding its stakeholders, and based on the corporate governance best practices recommended by the OECD, the CAF, and the Financial Superintendence of Colombia; the relationship framework with its owner, and the management of its board of directors and its administrators, EPM stands out as the benchmark public utilities company in Colombia and as an example in Latin America.

EPM is an official public utilities entity established as a state-owned municipal industrial and commercial company subject to the rules of Act 142 of 1994 which regulates the provision of residential public utilities in Colombia.

### Ownership: municipality of Medellín



All the ownership rights of EPM are held by the municipality of Medellín, represented by the mayor of Medellín, who, in accordance to Act 142 of 1994 and the company's bylaws, appoints the CEO, chairs the board of directors, and directly designates the other members.

The exercise of ownership is regulated by the law and the internal regulations—contained in the relations framework agreement signed on April 23, 2007 between the mayor of Medellín and EPM. In this agreement, interventions by the municipality of Medellín, in its role as owner of EPM, are regulated; the expectations of the city regarding the company's management are set; and the obligations of both parties are agreed upon through self-regulations that delimit the exercise of ownership and management. The powers of the Council of Medellín over EPM are defined in the company's bylaws and in the Colombian laws.

In accordance with the relations framework agreement, the Council of Medellín is responsible for approving the extraordinary transfers to the municipality.

During the 10 years of the relations framework agreement, its application stands out as evidence of governance and guarantee of transparency, technical rigor, and administrative and financial autonomy, elements that are recognized by the stakeholders, mainly by investors, risk rating agencies, and the community.

This agreement has ratified that corporate governance is a key factor in business competitiveness and sustainability, which involves advantages that transcend the financial, and helps find the balance between ownership, direction, and management in a company of public nature. (*Annex 2. Context on the relations framework agreement.*)



**Sustainability and growth:**

Management focused on the integrity, profitability, and strength of its assets, and transfer to the municipality of the legally established financial surplus.



**Transparency:**

Mechanisms that ensure the dissemination of decisions and results to the different stakeholders.



**Responsible autonomy in management:**

Administration dissociated from political interests and focused on medium and long-term development interests.



Adherence to EPM's corporate purpose.



Efficiency, productivity, and profitability of equity.



Technical, legal, financial and administrative rigor within the highest standards.

## Monitoring of compliance with the relations framework agreement

Compliance with the obligations by both EPM and the municipality of Medellín during 2017 is described below.

| Municipality's and EPM's obligations           |                                                                                                                                                                                            |            |                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Component                                      | Key aspect                                                                                                                                                                                 | Compliance | Remarks                                                                                                                                                                                                                                                                                                                                                 |
| <b>Municipality's obligations</b>              |                                                                                                                                                                                            |            |                                                                                                                                                                                                                                                                                                                                                         |
| Respect for the administrative autonomy of EPM | Role of owner through the board of directors (chairman).                                                                                                                                   | Complies   | The mayor of Medellín is the chairman of the board of directors. In 2017, 18 meetings of the board were held, and the attendance detail is found in this corporate governance report in the board of directors chapter.                                                                                                                                 |
|                                                | Not to influence or participate, directly or indirectly, in the process of selection and appointment of employees, except in those in which its participation is as chairman of the board. | Complies   | For appointments in which its participation is as chairman of the board, there were no changes in 2017. Changes in the organizational structure were approved by the board of directors in accordance with the provisions of the bylaws and with the analysis of the management committee which is chaired and entirely made up of independent members. |
|                                                | Not to influence or participate, directly or indirectly, in the contracting processes.                                                                                                     | Complies   | Grupo EPM's policy of engagement with suppliers and contractors, approved through Minute 1570 of the Board of Directors of EPM on October 2013 and adopted by all Grupo EPM's companies in Colombia. Application of the employees' transparency statement. See chapter on compliance in the corporate governance report.                                |
|                                                | Criteria of experience, suitability, professionalism, honesty, and moral solvency when appointing the CEO.                                                                                 | Complies   | The CEO was assessed.                                                                                                                                                                                                                                                                                                                                   |
|                                                | Change of CEO based on objective reasons, considering results and assessment.                                                                                                              | Complies   | The CEO was assessed. There were no changes in the period.                                                                                                                                                                                                                                                                                              |

| Municipality's and EPM's obligations                                              |                                                                                                                                                                       |                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Component                                                                         | Key aspect                                                                                                                                                            | Compliance                                                                                                                                                          | Remarks                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Municipality's obligations</b>                                                 |                                                                                                                                                                       |                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                      |
| Respect for the administrative autonomy of EPM                                    | The chairman promotes corporate governance practices.                                                                                                                 | Complies                                                                                                                                                            | Complying with what is established in: <ol style="list-style-type: none"> <li>1. EPM's bylaws.</li> <li>2. EPM's Corporate Governance Code.</li> <li>3. Rules of the board of directors.</li> <li>4. Relations framework agreement between EPM and the municipality of Medellín.</li> </ol>                                                                                                          |
|                                                                                   | Ensure compliance with the corporate governance guidelines in the affiliated companies.                                                                               | Complies                                                                                                                                                            | See the group's policies in this corporate governance report.                                                                                                                                                                                                                                                                                                                                        |
| Duties regarding the board of directors (Appointment)                             | Appoint and keep at least 5 independent members for continuity of medium and long-term strategic planning, and policies and guidelines set by the board of directors. | Complies                                                                                                                                                            | See chapter on the Board of Directors of EPM in this corporate governance report. According to what is established in: <ol style="list-style-type: none"> <li>1. EPM's bylaws.</li> <li>2. EPM's Corporate Governance Code.</li> <li>3. Guidelines for the composition of the board of directors.</li> <li>4. Relations framework agreement between EPM and the municipality of Medellín.</li> </ol> |
|                                                                                   | Establish training and experience requirements.                                                                                                                       |                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                                   | Requirements for control members.                                                                                                                                     |                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                                   | Lists of candidates drawn up by the stakeholders to ensure transparency in the appointment.                                                                           |                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                                   | Periodic assessment of the board of directors and CEO<br>Base element for considering removal.                                                                        | Complies                                                                                                                                                            | Assessment of the management and directorate were performed.<br>There were no changes in the period.<br>See summary in this corporate governance report.                                                                                                                                                                                                                                             |
| The chairman will tend to apply the rules of procedure of the board of directors. | Complies                                                                                                                                                              | There is a rules of procedure of the board, adopted through Decree 376 of August 25, 2015. See the main duties of the chairman in this corporate governance report. |                                                                                                                                                                                                                                                                                                                                                                                                      |

| Municipality's and EPM's obligations                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Component                                                                           | Key aspect                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Compliance | Remarks                                                                                                                                                                             |
| <b>Municipality's obligations</b>                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                                                                                                                                                                     |
| Independence in managing financial resources.                                       | Independence in the operational management of financial resources. Portfolio management and EPM's own position responds to financial profitability criteria. The municipality will not influence decisions on the financial management of EPM's resources.                                                                                                                                                                                                                                                                                                                                                      | Complies   | Extraordinary transfers have been processed in accordance with the provisions of the relations framework agreement.                                                                 |
| Approval of EPM's budget                                                            | The municipal administration is committed to annually managing the powers delegated by COMFIS at the board of directors.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Complies   | Resolution 009 of February 14, 2016 through which COMFIS (Municipal Council of Tax Policy) delegates powers so that the Board of Directors of EPM will approve the budget for 2017. |
| Participation of EPM in the design and execution of the Municipal Development Plan. | The municipality will encourage the participation of EPM in the design of the plan, in order to ensure its consistency with EPM's long-term projects. Transfers must be harmonized with the financial projections to meet the requirements of the owner without jeopardizing the viability, solvency, and financial strength, or the company's financial projections. EPM's commitments in the plan will be coherent with its strategic plans, and its participation will be determined based on technical, financial, economic and market criteria, taking into account compliance with the corporate purpose. | Complies   | See chapter on property in this corporate governance report.<br>See financial report.                                                                                               |

### Municipality's and EPM's obligations

| Component                                           | Key aspect                                                                                                                                                                                                                                                                                                                                                                                                         | Compliance | Remarks                                                                                                                                                   |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EPM's obligations</b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                                                                                                                                           |
| Compliance with indicators of financial management. | Carry out an efficient and productive financial management based on technical criteria and reflected in minimum criteria of EBITDA, return on equity, and other financial indicators. The board of directors will annually define the indicators based on the strategic plans and budgets for the time limits agreed upon at the board of directors.                                                               | Complies   | It is included in the annual planning cycle and is part of the company's balanced scorecard. See chapter on property in this corporate governance report. |
| Transfers to the municipality.                      | Council Agreement (1997): Transfers can not be higher than 30%. It is agreed that they may be higher, considering the municipal financial requirements for specific investment programs and financial needs of EPM so as not to jeopardize the business viability or its expansion. Additional transfers must be authorized by the municipality, prior submission of their effects on EPM's finances to the mayor. | Complies   | See chapter on property in this corporate governance report. See financial report                                                                         |

### Municipality's and EPM's obligations

| Component                                      | Key aspect                                                                                                                                                                                                                              | Compliance | Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EPM's obligations</b>                       |                                                                                                                                                                                                                                         |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Settlement of transfers.                       | The plan to make transfers must refer to the municipality's cash requirements on the one hand, and, on the other, to the availability of liquid resources of EPM, in order to carry out an adequate cash management in both entities.   | Complies   | See chapter on property in this corporate governance report.<br>See financial report.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Appropriate communication mechanisms.          | Owner/decentralized entity relationship: Mayor, board of directors and the management.<br>Other relationships: Municipal Private Secretariat/EPM's external relations office.                                                           | Complies   | The role of owner is exercised as chairman of the board of directors.<br>The other relationships are exercised through EPM's external relations management office.                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Commitment to transparency with the community. | Principles of transparency, impartiality, and objectivity; principles particularly used in their contractual and employee selection processes.                                                                                          | Complies   | Transparency policy adopted by EPM's Board of Directors<br>Human talent management policy approved in Minute 1527 of EPM's Board of Directors in December 2010.                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                | Contractual activity in an area of competence and applying the principles of the administrative function and the system of inabilities and incompatibilities. Call for the submission of bids through the corporate information system. | Complies   | 1. Decree 362 of 2014 by the board of directors through which the general contracting regulations are issued.<br>2. Policy of supply of goods and services, approved by the board of directors in December 2014 and adopted by the national energy affiliated companies.<br>3. Grupo EPM's policy of engagement with suppliers and contractors, approved in Minute 1570 of the Board of Directors of EPM on October 2013 and adopted by all Grupo EPM's companies in Colombia.<br>4. Application of the employees' transparency statement. See chapter on compliance in the corporate governance report. |



### Municipality's and EPM's obligations

| Component                                      | Key aspect                                                                                                                                                                                                                                                                                                              | Compliance | Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EPM's obligations</b>                       |                                                                                                                                                                                                                                                                                                                         |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Commitment to transparency with the community. | Define employees' profiles and competencies which will be strictly verified in the selection processes.                                                                                                                                                                                                                 | Complies   | EPM has defined a manual of position descriptions that is available on the company's intranet and is the input for the selection processes which are strictly verified.                                                                                                                                                                                                                                                                                        |
|                                                | Have communication and dissemination mechanisms to inform citizens about recruitment and selection processes.                                                                                                                                                                                                           | Complies   | EPM, through its website, publishes the selection and contracting processes:<br><a href="https://www.epm.com.co/site/home/institucional/ofertas-de-empleo">https://www.epm.com.co/site/home/institucional/ofertas-de-empleo</a><br><a href="https://www.epm.com.co/site/proveedoresycontratistas/proveedores-y-contratistas/aplicaciones/te-cuento">https://www.epm.com.co/site/proveedoresycontratistas/proveedores-y-contratistas/aplicaciones/te-cuento</a> |
| Permanent external auditing.                   | Permanent external auditor.<br>Hiring an external audit firm will be ruled by the guidelines established by the audit committee. This firm shall not provide other services within the company. There will be a conscious effort so that the external auditor be the same for all the companies that make up Grupo EPM. | Complies   | See chapter on Accountability in this corporate governance report.                                                                                                                                                                                                                                                                                                                                                                                             |

### Municipality's and EPM's obligations

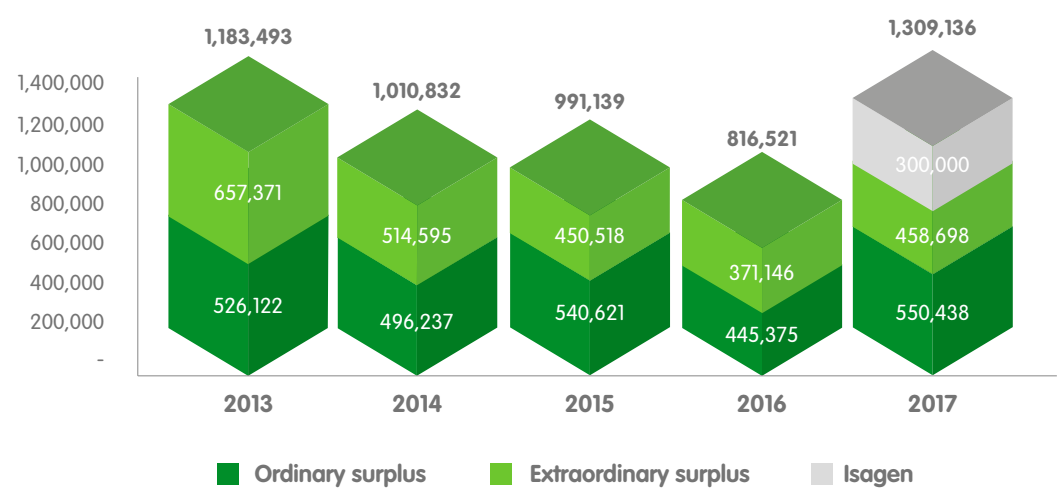
| Component                                                                     | Key aspect                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Compliance | Remarks                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EPM's obligations</b>                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                                                                                                                                                                                                                                                         |
| Corporate social responsibility.                                              | <p>Design and develop CSR policies, especially with actions aimed at the most vulnerable population.</p> <p>Criteria for CSR policies:</p> <ul style="list-style-type: none"> <li>•Activities delimited in the corporate purpose and aligned with its strategic objectives.</li> <li>•Actions that do not compromise the financial viability.</li> <li>•Have a CSR model incorporated into the strategic framework, keeping the company's sustainability as the main objective and taking into account the commitments of the Global Compact.</li> </ul> | Complies   | Approved in Minute 1508 of the Board of Directors of EPM in January 2009 and approved at all the boards of directors of the group's affiliated companies in Colombia.                                                                                                   |
| Provision of support services to the municipality with EPM's human resources. | Putting its employees under the service of the municipality under special circumstances. Through agreements defining the resource, the time required, and the consideration.                                                                                                                                                                                                                                                                                                                                                                             | Complies   | In 2017, there were three EPM employees acting as commissioners in the entities of the municipality: administrative and financial manager - Plaza Mayor; executive director of planning - Medellín's Mayor's Office; environmental deputy director - Metropolitan Area. |

In 2017, the ordinary surplus transferred amounted to COP 550.44 billion, corresponding to 30% of the 2016 profits, and the extraordinary surplus transferred amounted to COP 458.70 billion, corresponding to 25% of the profits. Additionally, COP 300 billion was transferred as a result of the sale of the shares of ISAGEN S.A. The amounts mentioned do not compromise the financial viability of EPM in the long term.

Among the main decisions regarding ownership by the municipality of Medellín over EPM, we highlight the provisions of the Council of Medellín (Agreement No. 032 of June 5, 2017) with regard to the transfer of an item of the assets of EPM, as a result of the disposal of EPM's shares in ISAGEN S.A. E.S.P., to the general budget of Medellín distributed in the 2017 and 2018 fiscal periods totaling COP 600 billion of the total received in the transaction, which amounted to COP 1.4 trillion.

Ordinary transfers were made based on the accounting calculations of the financial surpluses at the end of the previous fiscal year. In all cases and extraordinary transfers being an exceptional situation, these were approved by the Municipal Council, prior agreement based on the availability of cash, EPM's investment plans, and requirements of the municipality, as well as based on the five previous years, as shown in the graph below.

### Transfers to the municipality of Medellín



Ordinary and extraordinary transfers to the municipality of Medellín from 2013 to 2017 (figures expressed in COP million).

## Administration of EPM's Board of Directors

The board of directors is in charge of the direction of EPM, and the CEO is responsible for the administration and representation of the entity. This, delimited in the company's bylaws and in the provisions of the law .

### Composition of EPM's Board of Directors



**Federico Gutiérrez Zuluaga**  
Chairman (Non-independent)  
**Profile:** Mayor of Medellín  
**Start Date:** 01/01/2016



**Alberto Arroyave Lema**  
Control member (Independent)  
**Profile:** Social participation and control  
**Start Date:** 22/02/2008



**Claudia Jiménez Jaramillo**  
Independent member  
**Profile:** Public management  
**Start Date:** 21/01/2016



**Javier Genaro Gutiérrez Pamborthy**  
Independent member  
**Profile:** Public utilities  
**Start Date:** 09/03/2016



**Andrés Bernal Correa**  
Independent member  
**Profile:** Business and financial management  
**Start Date:** 06/02/2012



**Elena Rico Villegas**  
Control member (Independent)  
**Profile:** Public utilities management  
**Start Date:** 21/01/2016



**Gabriel Ricardo Maya Maya**  
Control member (Independent)  
**Profile:** Legal  
**Start Date:** 22/02/2008



**Manuel Santiago Mejía Correa**  
Independent member  
**Profile:** Business management  
**Start Date:** 30/04/2012



**Carlos Raúl Yepes Jiménez**  
Independent member  
**Profile:** Finance and CSR  
**Start Date:** 06/07/2016

The structure of EPM's Board of Directors meets what is stated in Law 142 of 1994 in Colombia and, internally, in EPM's Relations Framework Agreement and Corporate Governance Code. These documents establish that this collegiate body shall be made up by nine main members without alternates, as follows:

- The mayor of the city of Medellín, who is the chairman of the board of directors.
- Five people freely appointed by the mayor of Medellín, all of them acting independently.
- Three people selected by the mayor of Medellín among the control spokespersons registered by the development and social control committees of residential public utilities (Article 27.6 of Act 142 of 1994).

EPM's Corporate Governance Code points out the following criteria to be considered by the mayor to appoint the members of the board of directors:

- Professional academic training in matters related to the corporate purpose of EPM and to the duties proper to the board of directors.
- Business or work experience in the public utilities industry.
- Control spokespersons are required to submit proof of the time spent in the development and social control committees that selected them, description of their relationship with it, and evidence of the activities carried out in the development of their role.

The EPM's Board of Directors defined in 2015 the guidelines for its structure, including the profiles necessary for a seat on it, with a multidisciplinary and independent nature and with a global vision and a high sense of responsibility for the public service. (*Annex 3. Profiles of the board of directors.*)

In 2017, there were no changes in the structure of EPM's Board of Directors.

The members of the board of directors are subject to the system of disqualifications and incompatibilities established by the law.

- The average number of years of tenure in the board of the current members, as of December 31, 2017, was 4.7 years.
- Eight members (88% of the board) are independent, which exceeds the 25% required in Article 44 of Act 964 of 2005 for issuers of securities, and the 55.6% defined in the internal regulations.
- Independent members of the board are considered as such since the date they start their role as members of the board, except for Claudia Jiménez Jaramillo, who became an independent member on January 26, 2017.
- Additionally, the members of the EPM's Board of Directors, in their capacity as independent:
  - Do not hold an executive position at EPM or its affiliated companies.
  - Have not held an executive position at the company over the last five years.
  - Are not related to any of the members of the senior management.
  - Have no relationship with companies providing consultancy or advisory services to EPM.
  - Have not signed contracts with EPM for personal services.
  - Are not linked to a non-profit organization that receives significant contributions from the company.
  - Have not been partners or employees of the company's external audit firm over the past three years.
- The **deliberative** quorum for the meetings of the board of directors is formed with the majority of its members.
- The **decision-making** quorum corresponds to the majority of those present at the respective meeting. For decision-making purposes, each member of the board has a vote.

## Management of the board of directors



**Board of Directors of EPM (from left to right):** Orlando Uribe Villa (secretary of treasury of Medellín and permanent guest), Carlos Raúl Yepes Jiménez, Gabriel Ricardo Maya Maya, Claudia Jiménez Jaramillo, Federico Gutiérrez Zuluaga (Mayor of Medellín and chairman of the board), Elena Rico Villegas, Alberto Arroyave Lema, Javier Genaro Gutiérrez Pemberthy, Andrés Bernal Correa, and Manuel Santiago Mejía Correa.

In accordance with the rules of procedure of the board of directors, the following are the main duties of the chairman:

- Freely appoint and remove members of the board.
- Make sure that the board of directors efficiently sets and implements the strategic planning of the company.
- Coordinate and plan its functioning by means of an annual work plan.
- Ensure the execution of agreements, the exercise of responsibilities, and the active participation of all the members of the board.
- Lead the process of assessment of the board and its committees.
- Promote active coordination between the company and the issues of interest for the city of Medellín, in compliance with the provisions of the relations framework agreement, and ensure compliance with the rules of the board of directors.

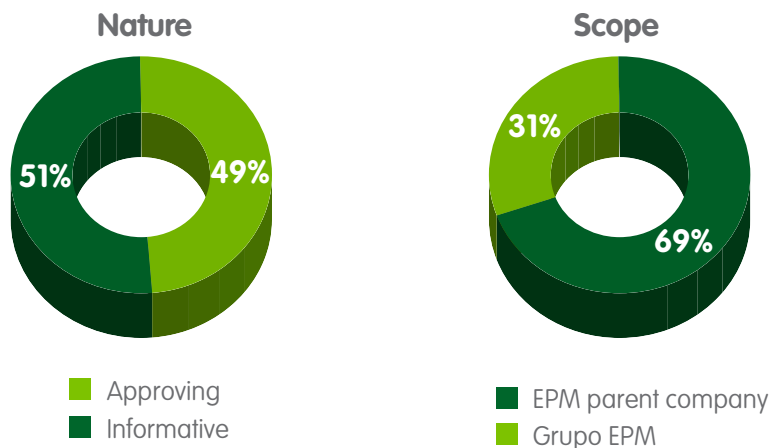
The secretary of the board, who, according to the company's bylaws, is, in turn, the secretary-general of EPM, has the following duties:

- Call the meetings.
- Duly process the requests of the board.
- Prepare the minutes of the board of directors and sign them jointly with the chairman.
- Ensure preservation of the documents of the board and legality of their actions.
- Define the procedure to effectively develop the meetings of the board of directors.

### Outstanding actions

- Approval for the acquisition of Empresas Públicas de Rionegro S.A. E.S.P. **(E.P. Rio)**.
- Support for the definition of the **Ethics Management Model** of Grupo EPM.
- Strategic analysis of the business and investment portfolio of Grupo EPM for compliance with the BHAG by 2025.
- Update of the Grupo EPM's **risk map**.
- Modification of the **asset management policy**, which received a distinction from Colciencias as an organizational innovation project.
- Strengthening of **human talent** and audit issues.
- Monitoring and control to the development of the following **megaprojects**: Ituango hydroelectric project, Aguas Claras wastewater treatment plant, Nueva Esperanza project, and Bello-Guayabal-Ancón transmission line.
- Monitoring, as a critical issue, to the recovery of the Playas hydroelectric power station.
- Support to the **United for Water** program.
- Approval of the **financial statements** of EPM and the consolidated financial statements of Grupo EPM, in accordance with the International Financial Reporting Standards (IFRS).
- Approval for the **issuance of bonds** in the international capital market.
- Approval of the **budget** for 2018 totaling COP 14.2 trillion and the **investment plan** for the period 2018-2021 totaling COP 6.4 trillion.

The topics analyzed by the Board of Directors of EPM in 2017 were distributed according to the following graphs:



Management of the information related to the board is subject to the information management policy approved by the board of directors on December 2, 2014, with the purpose of ensuring its integrity, reliability, availability, transparency, and dissemination. This, in order to allow an adequate decision-making process that promotes corporate growth and sustainability. Additionally, it adheres to the currently applicable regulations and best practices on corporate governance.

An **agenda with key issues that were addressed in 2017** during **spaces for the joint construction of strategic issues** for the organization was defined. Likewise, the **support to the management obtained from the board's committees and the compliance with the corporate governance standards by the board of directors** as the highest governing authority account for the effective and transparent management of the company.

In 2017, an online IT solution, known as ARCA, was implemented. It operates through workflows, which allows strengthening the attributes of integrity, transparency, timeliness, confidentiality, traceability, availability (24/7), and security of the information of the Board of Directors of EPM and its committees.



In 2017, 18 meetings of the board of directors were held, with a total average attendance of 93%.

| Attendance at the board of directors 2017 |                 |
|-------------------------------------------|-----------------|
| Name                                      | % of attendance |
| Federico Gutiérrez Zuluaga                | 94%             |
| Alberto Arroyave Lema                     | 100%            |
| Andrés Bernal Correa                      | 67%             |
| Claudia Jiménez Jaramillo                 | 100%            |
| Elena Rico Villegas                       | 100%            |
| Gabriel Ricardo Maya Maya                 | 100%            |
| Javier Genaro Gutiérrez Pemberthy         | 100%            |
| Manuel Santiago Mejía Correa              | 72%             |
| Carlos Raúl Yepes Jiménez                 | 100%            |



## Management of the committees of the board of directors

In 2017, the four committees of the Board of Directors of EPM analyzed the topics under their responsibility in line with the recommendations of the Código País Survey and with the legal and statutory functions which concern them. The committees are spaces designed with the purpose of ensuring efficiency in decision-making, through a detailed analysis of the topics before each meeting of the board of directors. Such analysis is recorded in the minutes and recommendation reports of each committee.

The external auditor of EPM is a permanent guest to the audit committee for his/her constant and periodic communication with the board of directors.

The committees are fully formed and chaired by the independent members of the board of directors, aligning the training and experience of its members with the definition and responsibility of each one of them.

In January 2017, there was a change in the structure of the strategy and investment and project monitoring committees. Claudia Jiménez Jaramillo went from the project monitoring committee to the strategy and investment committee. Manuel Santiago Mejía went from the project monitoring committee to the strategy and investment committee.

| Committee                      | Activities                                                                                                                                                                                                                                                                                                                   | Composition                                                                           |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Audit</b>                   | Supervision: internal audit, disclosure of financial information, external audit, internal control system, comprehensive risk management system, compliance, credit proposals, internal and external control entities, operations between related parties, intellectual property, and annual report on corporate governance. | Alberto Arroyave Lema<br>Andrés Bernal Correa<br>Javier Genaro Gutiérrez Pemberthy    |
| <b>Management</b>              | Monitoring of business management, corporate reputation, intellectual capital, ethics, business image, administrative structure, business and commercial development projects, appointments and remuneration, conflicts of interest, assessment of the directorate and senior management, and corporate governance.          | Claudia Jiménez Jaramillo<br>Gabriel Ricardo Maya Maya<br>Carlos Raúl Yepes Jiménez   |
| <b>Strategy and investment</b> | Strategy; unity of purpose and direction; business policies; investments and new businesses; research, development, and innovation projects; corporate social responsibility; sustainability; environmental management, and engagement plans with stakeholders.                                                              | Elena Rico Villegas<br>Claudia Jiménez Jaramillo<br>Javier Genaro Gutiérrez Pemberthy |
| <b>Project monitoring</b>      | Monitoring of the design, execution, and evaluation of the projects prioritized by the board of directors, as well as their corresponding risk maps, BSC, and other control instruments.                                                                                                                                     | Manuel Santiago Mejía Correa<br>Elena Rico Villegas<br>Gabriel Ricardo Maya Maya      |

## Attendance at the committees of the board of directors

| Name                                          | Audit Committee | Strategy and investment committee | Project monitoring committee | Management committee |
|-----------------------------------------------|-----------------|-----------------------------------|------------------------------|----------------------|
| Meetings held during the period               | 19              | 20                                | 18                           | 18                   |
| Alberto Arroyave Lema                         | 100%            |                                   |                              |                      |
| Andrés Bernal Correa                          | 63%             |                                   |                              |                      |
| Claudia Jiménez Jaramillo                     |                 | 79%                               |                              | 89%                  |
| Elena Rico Villegas                           |                 | 100%                              | 100%                         |                      |
| Gabriel Ricardo Maya Maya                     |                 |                                   | 89%                          | 89%                  |
| Javier Genaro Gutiérrez Pemberthy             | 100%            | 100%                              |                              |                      |
| Manuel Santiago Mejía Correa                  |                 |                                   | 59%                          |                      |
| Carlos Raúl Yepes Jiménez                     |                 |                                   |                              | 83%                  |
| <b>Total average attendance at committees</b> | <b>88%</b>      |                                   |                              |                      |

## Remuneration of the board of directors

Remuneration amounts for the members of EPM's Board of Directors were defined by the mayor of Medellín through Decree 1165 of August 12, 2009. During 2017, the fee paid to each member for attending each meeting of both the board and the committees was equivalent to three monthly minimum wages in Colombia.

At EPM, the members of the board of directors do not receive any kind of variable remuneration and neither does the mayor of Medellín, in his capacity as chairman of the board.

| Remuneration                         |                     |
|--------------------------------------|---------------------|
| Detail                               | Amount paid in 2017 |
| Board of directors                   | 294,349,083         |
| Committees of the board of directors | 387,301,425         |
| <b>Total paid in 2017</b>            | <b>681,650,508</b>  |

## Assessment of the board of directors

It refers to a comprehensive and periodic exercise of EPM's Board of Directors and Senior Management that allows identifying the quality and efficiency of this deliberative body's management and its improvement opportunities. Based on the assessments carried out every period, a strengthening plan is designed with the purpose of improving the performance of the board and its committees, as well as its relationship with EPM's Management.

Within the framework of the strengthening plan of the board of directors, in 2017 training actions related to the planning of human and organizational management, the telecommunications business, the financial planning, the comprehensive management of users, and the monitoring of the internal control system, among other actions, were included.

Regarding the assessment of the board of directors for 2017, an external consultant was hired. The following were the aspects assessed:

- Relationship of the board of directors with the company's management.
- Performance and effectiveness of the board of directors as a collegiate body.
- Dynamics and functioning of the board of directors.
- Roles of both the board's chairman and secretary.
- Self-assessment of the individual performance as a member of the board of directors.
- Level of discussion and in-depth coverage of the topics addressed by the board of directors.
- Management of the committees of the board of directors.

The results obtained from this assessment constitute the basis for designing the strengthening plan of EPM's Board of Directors to be implemented in 2018.

## Conflicts of interest

Annex No. 8 of the corporate governance code, ***"Manual of conflicts of interest and treatment of decisions of interest for the group,"*** issued through Decree No. 390 of November 24, 2015, defines the procedure to manage conflicts of interest among the members of the board of directors, which includes leaving the meeting of the board or the committee while the issue is being discussed. Additionally, the rules indicate that doubting about the existence of a conflict of interest does not exempt the member from abstaining from participating in the decision. When the conflict is of a permanent nature and prevents exercising duties independently, the board member must resign.

The manual regulates the differences that may arise between the parent company of Grupo EPM and the subsidiary companies, regarding the interest of the business group. The procedure refers to the governance agreement concluded between the companies of Grupo EPM, the shareholders' agreements entered into, and the governance model defined for each of the subsidiary companies. Moreover, it points out the corresponding actions, in each case, of the board of directors of the subsidiary company, the management committee of the parent company, and the board of directors with their respective committees.

In 2017, three conflicts of interest in EPM's Board of Directors took place, which were handled according to the procedure described above. The conflicts were as follows:

1. EPM's provision of electricity service through solar panels: Manuel Santiago Mejía Correa. (This conflict is permanent).
2. Acquisition of Empresas Públicas de Rionegro S.A. E.S.P.: Claudia Jiménez Jaramillo. (This conflict was temporary).
3. Telecommunications business consulting service: Alberto Arroyave Lema. (This conflict was temporary).

## Performance of the EPM's Management

### Composition

Since 2016, Jorge Londoño de la Cuesta has led the team that manages the strategy and the operation of EPM. This group of nine vice presidents with an average experience of over 10 years in Grupo EPM has accompanied management in its performance which has had five emphases: closeness, coverage, care for the environment, growth, and consolidation in the territories where EPM operates.

The team of vice presidents combines technical and administrative profiles with an strategic and business mix, which provides EPM and the business group with the necessary strength of knowledge and interdisciplinarity. In 2017, there were no changes in the senior management, and it is noted that executives have been linked to EPM for an average of 20 years.



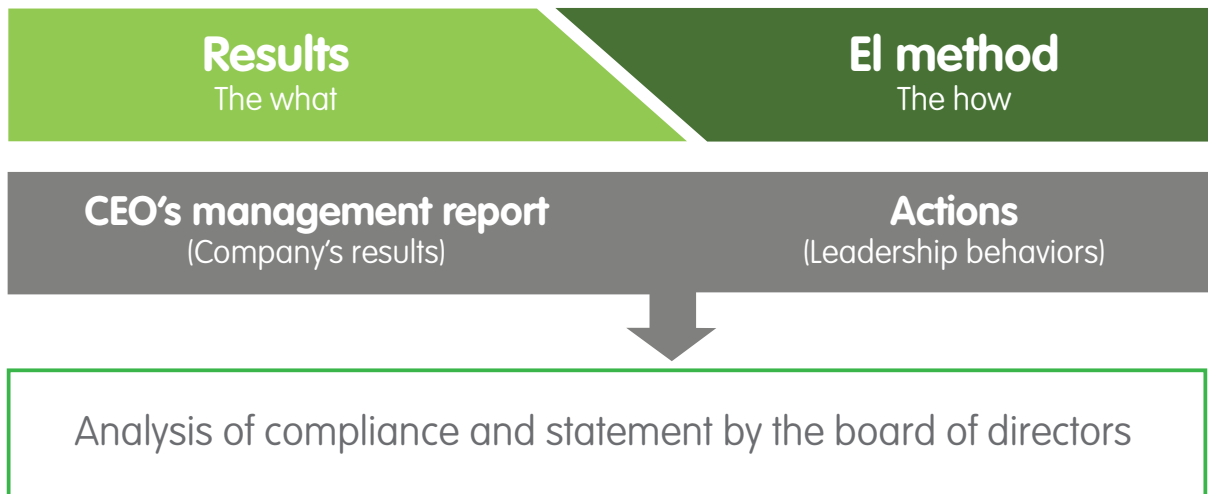
**EPM's management team:** (sitting from left to right) Gabriel Jaime Betancourt Mesa (EVP of strategy and growth), Jorge Londoño De La Cuesta (CEO of EPM), John Alberto Maya Salazar (VPE of business management); (standing from left to right) Alejandra Vanegas Valencia (VP in charge of supplies and shared services), Ana María González Gómez (VP in charge of communications and external relations), Jorge Andrés Tabares Ángel (EVP of corporate finance, risk management, and investments), Hernán Darío Vergara Castro<sup>1</sup> (VP of corporate auditing), Ricardo José Arango Restrepo (VP of human talent and technology), Wilson Chinchilla Herrera (EVP of projects and engineering), Maritza Alzate Buitrago (VP of legal affairs and secretary general).

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<sup>1</sup> Held this position until December 31, 2017.

## Evaluation of the CEO

The Board of Directors of EPM carries out a systemic process that shows the achievements and challenges of the CEO's performance in terms of the results and methods for achieving them (the what and the how).



(Annex 4. Statement by the Board of Directors of EPM on the CEO's performance.)

## Remuneration of the EPM's Management

EPM has a fixed remuneration system, approved by the board of directors, for the CEO and the senior management. Remuneration for the senior management does not have any variable component and is shown in the table below—expressed in monthly minimum wages (MMW) for Colombia.

In 2017, the salary increase for public servants and official employees was 7.75% (CPI: 5.75% plus 2 points).

| Remuneration - EPM's Management                    |                                                                     |                                 |         |
|----------------------------------------------------|---------------------------------------------------------------------|---------------------------------|---------|
| Category                                           | Position                                                            | Total payments received in 2017 |         |
|                                                    |                                                                     | Minimum                         | Maximum |
| General management and executive vice presidencies | CEO                                                                 | 666 MMW                         | 734 MMW |
|                                                    | Executive VP of strategy and growth                                 |                                 |         |
|                                                    | Executive VP of corporate finance, risk management, and investments |                                 |         |
|                                                    | Executive VP of business management                                 |                                 |         |
|                                                    | Executive VP of projects and engineering                            |                                 |         |
| Vice presidencies Level I                          | Corporate auditing                                                  | 486 MMW                         | 574 MMW |
|                                                    | VP of legal affairs and secretary general                           |                                 |         |
|                                                    | VP of corporate communications and relationships                    |                                 |         |
|                                                    | VP of supply and shared services                                    |                                 |         |
|                                                    | VP of human talent and technology                                   |                                 |         |
| Vice presidencies Level II                         | VP of power generation projects                                     | 468 MMW                         | 568 MMW |
|                                                    | VP of growth                                                        |                                 |         |
|                                                    | VP of corporate strategy                                            |                                 |         |
|                                                    | VP of gas                                                           |                                 |         |
|                                                    | VP of power generation                                              |                                 |         |
|                                                    | VP of water and sanitation                                          |                                 |         |
|                                                    | Commercial VP                                                       |                                 |         |
|                                                    | VP of power transmission and distribution                           |                                 |         |

**Note:** Payments include vacation, bonuses, and benefits.

The ratio of the annual compensation for the CEO and the median compensation for all employees expressed in number of times is 10.62.

## Management support committees

Through decrees 2151 and 2187 issued by the CEO in January and November 2017 respectively, the strategic committees were modified as follows:

- The planning and directorate committees were eliminated, and their functions were unified in the management committee.
- The management committee was created with the purpose of facilitating the mechanisms of integration and management support and unifying the participation of the executives reporting directly to the General Management of EPM, in order to ensure the integrality of the decisions. This committee consists of the four strategic vice presidents and the five first-level vice presidents.
- The ethics committee was redefined as a strategic committee, in order to guide, promote, and lead the ethical management in the exercise of public duty in terms of effectiveness, transparency, integrity, and service to citizens by all public servants.
- The contracting committee had no changes.

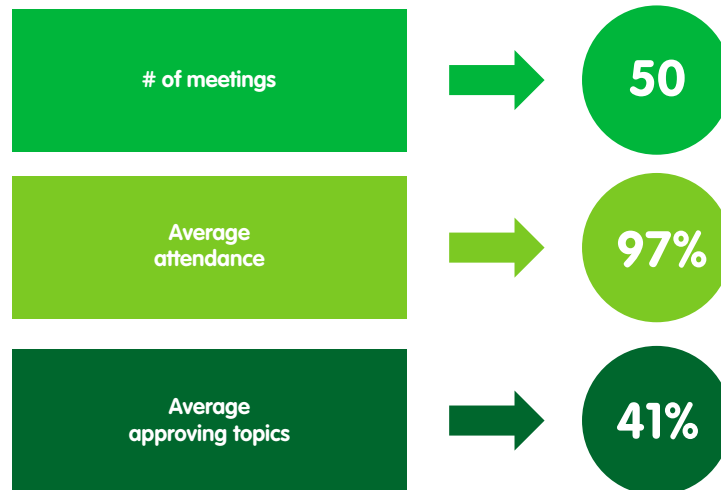
According to the above, below are the strategic committees of EPM and their composition.

|             | Management                                                                                                                                                                                                                                                                                                                                   | Contracting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Ethics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mission     | To define, evaluate, and recommend elements that guide the unity of purpose and direction for the business group, as well as to approve management issues for EPM that compromise the achievement of the strategy and to monitor the implementation of the decisions in the group.                                                           | To analyze and make suggestions on procurement matters related to the company' process for acquiring goods and services.                                                                                                                                                                                                                                                                                                                                                                        | To promote and lead the implementation of ethical management, guiding the consolidation of the exercise of public duty in terms of efficiency, transparency, integrity, and service to citizens by all public servants.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Composition | <p><b>Members:</b></p> <ul style="list-style-type: none"> <li>✓ CEO (M)</li> <li>✓ VP of legal affairs and secretary general (A)</li> <li>✓ First-level vice presidents</li> </ul> <p><b>Permanent guests:</b></p> <ul style="list-style-type: none"> <li>✓ Head of corporate governance unit</li> <li>✓ VP of corporate strategy</li> </ul> | <p><b>Members:</b></p> <ul style="list-style-type: none"> <li>✓ CEO</li> <li>✓ Head of contracting unit (M)</li> <li>✓ VP of legal affairs and secretary general (A)</li> <li>✓ EVP of corporate finance, risk management, and investments</li> <li>✓ VP of corporate auditing</li> <li>✓ VP of supply and shared services</li> </ul> <p><b>Permanent guests:</b></p> <ul style="list-style-type: none"> <li>✓ EVP of business management</li> <li>✓ EVP of projects and engineering</li> </ul> | <p><b>Members:</b></p> <ul style="list-style-type: none"> <li>✓ VP of human talent and technology (M)</li> <li>✓ VP of corporate finance, risk management, and investments</li> <li>✓ VP of corporate communications and relations</li> <li>✓ VP of corporate auditing</li> <li>✓ External member (remunerated)</li> <li>✓ Employee chosen by the CEO</li> </ul> <p><b>Permanent guests:</b></p> <ul style="list-style-type: none"> <li>✓ Human development and organizational culture manager (A)</li> <li>✓ Labor relations management manager</li> <li>✓ Integral risk management manager</li> <li>✓ Corporate communication manager</li> <li>✓ Support auditing manager</li> </ul> |

## Performance of the committees

In 2017, the strategic committees met in accordance with that stated in their mission, strengthening the effectiveness of decision-making and two-way communication with the work teams.

The following are the main statistics regarding the performance of the directorate and planning committees:



The contracting committee held 53 meetings in order to analyze contractual matters related to the procurement of goods and services of the CEO's competence.

The ethics committee is in an on-boarding process, and its members are getting ready to meet starting on March 2018.

## Evaluation of the committees

Strategic committees are annually evaluated with the purpose of monitoring their performance and identifying improvement opportunities that would contribute to the strategic management of such governing body. For this, a perception survey is applied to its members, and the performance of the committee is evaluated based on the information in the minutes of each meeting.

As for the management committee, during the 2017 evaluation, the following improvement opportunities were identified:

- Modifying the Management Committee of EPM and adjusting its scope to matters related to EPM.
- Creating the Corporate Core Committee of Grupo EPM with the purpose of leading the strengthening of the unity of purpose and direction of the business group, through the analysis, definition, and monitoring of matters with a group's scope and impact.

The implementation of these actions correspond to the 2018 management.



## Progress in Grupo EPM's corporate governance

In 2017, measures were implemented to strengthen the governing bodies of the companies that make up Grupo EPM.

**Shareholders' meeting:** The bylaws of all the national companies of Grupo EPM were modified. Articles referring to the protection of the interests of shareholders and their relation with society were strengthened and standardized.

The agenda of meetings with minority shareholders established by the CEO of EPM continued, in order to comply with the strategic planning within the framework of the unit of purpose and direction of the group, as well as to find the appropriate balance between ownership and management of each of the companies.

As shareholders with significant shareholdings in the group's companies, we highlight, in Colombia, the departments and municipalities where Grupo EPM is present, and in Latin America, the Primelles Family (Ticsa), the Republic of Panama (ENSA), and Proactiva Colombia S.A. (EV Alianza Energética S.A.).

**Board of directors:** When the bylaws were modified, the management of this governing body was articulated and its abilities and ways of acting were made explicit, in compliance with the corporate governance best practices (OECD, Código País, etc.). Changes in the regulations of the boards of directors were approved, aligning them with the provisions set in the bylaws of each company and including practices aimed at optimizing and making the meetings of the board of directors and the participation of its members more efficient.

In 2017, the following governance practices remained: regular agenda, integrated calendar of the group's board of directors, regular meetings with external members to align the group's expectations, induction plan for board members, evaluation, and strengthening plans.

**Management:** The roles were updated in the modification of the bylaws, clarifying the powers of this body in each company.

The most significant changes in the shareholding structure of the group (Annex 5. Grupo EPM's shareholding structure) occurred in Chile due to regulatory adjustments that led to the separation of the transmission and distribution business' assets, which gave rise to **EPM Transmisión Chile S.A.** as the fourth affiliated company in that country; in Panama, with the creation of **ENSA Servicios**; and in Colombia, with the acquisition of 100% of the shares of **Empresas Públicas de Rionegro (E.P. Rio)**. This last operation strengthens the focus on growth management, with the adoption of best practices in the water business in the department of Antioquia.

## Shareholders' agreements effective as of December 31, 2017

| Company                    | Parties involved                                                                                                                                                                                                                                                             | Signature date    | Summary                                                                                                                                                                                                                                                                               |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UNE EPM Telecomunicaciones | <ul style="list-style-type: none"> <li>• EPM</li> <li>• Millicom Spain S.L</li> <li>• Inder (Instituto de Deportes y Recreación de Medellín (Institute of Sports and Recreation in Medellín))</li> </ul>                                                                     | October 1, 2013   | Relationship and commitments between shareholders. It establishes the special majorities of the shareholders' meeting and the board of directors, gives EPM power to decide on issues of greater impact, and defines the right to leave.                                              |
| Aguas de Malambo           | <ul style="list-style-type: none"> <li>• EPM</li> <li>• Municipality of Malambo</li> <li>• Malambo's community action boards</li> <li>• Municipal Institute of Sports</li> <li>• Malambo's Hospital</li> <li>• Malambo's Institute of Culture</li> </ul>                     | June 29, 2011     | Conditions and framework for action for their participation as shareholders, taking into account the background and special considerations for the management and development of the regional water supply system which constitutes the corporate purpose of each of these companies. |
| Aguas de Occidente*        | <ul style="list-style-type: none"> <li>• EPM</li> <li>• Antioquia Governor's Office</li> <li>• Municipality of Santa Fé de Antioquia</li> <li>• Municipality of Sopetrán</li> <li>• Municipality of San Jerónimo</li> <li>• Municipality of Olaya</li> </ul>                 | December 19, 2007 | Conditions and framework for action for their participation as shareholders, taking into account the background and special considerations for the management and development of the regional water supply system which constitutes the corporate purpose of each of these companies. |
|                            | <ul style="list-style-type: none"> <li>• EPM</li> <li>• Antioquia Governor's Office</li> </ul>                                                                                                                                                                               | December 27, 2007 | It ensures that decisions taken in the company represent the plural vote of EPM and Antioquia Governor's Office.                                                                                                                                                                      |
| Aguas de Urabá*            | <ul style="list-style-type: none"> <li>• EPM</li> <li>• Antioquia Governor's Office</li> <li>• Municipality of Apartadó</li> <li>• Municipality of Chigorodó</li> <li>• Municipality of Mutatá</li> <li>• Municipality of Turbo</li> <li>• Municipality of Carepa</li> </ul> | December 1, 2006  | Conditions and framework for action for their participation as shareholders, taking into account the background and special considerations for the management and development of the regional water supply system which constitutes the corporate purpose of each of these companies. |
| EV Alianza Energética S.A. | <ul style="list-style-type: none"> <li>• EPM Latam S.A.</li> <li>• Proactiva Colombia S.A.</li> </ul>                                                                                                                                                                        | February 16, 2016 | It establishes the number of members of each shareholder to vote in the highest governing body of shareholders and in the highest administration and management body of the company.                                                                                                  |

\*Following the merger of Aguas Regionales in 2015, the shareholders' agreements of the merged companies—Aguas de Occidente and Aguas de Urabá—are maintained.

## Boards of directors of Grupo EPM's companies in Colombia

The composition of the boards of directors of the affiliated companies in Colombia is in line with the engagement model established in the business group. Hence, the definition of their members is established in accordance with strategic factors, as well as with the level of involvement of the affiliated company with EPM and the knowledge of the executives of the company regarding the area where the affiliated company operates.

In this way, the boards have internal members, who are part of the management of EPM and do not receive additional remuneration for this role; and representatives of the partners that correspond to territorial entities (departments and municipalities) where each affiliated company is located.

## Boards of directors of the water, sanitation, and solid waste management companies in Colombia

This group of companies in Colombia consists of seven organizations engaged in the provision of residential water, sewerage, and sanitation public utility services.

- Aguas del Oriente Antioqueño S.A. E.S.P
- Aguas Regionales S.A. E.S.P.
- Aguas de Malambo S.A. E.S.P.
- Aguas Nacionales S.A. E.S.P.
- Empresas Públicas de Rionegro S.A. E.S.P
- Empresas Varias de Medellín S.A. E.S.P. – Emvarias

## Average attendance at board's meetings - Water, sanitation, and solid waste management companies

In the period between April and December 2017, the general average attendance of main and alternate members was 53% and can be observed in the table below.

| Average attendance | Aguas de Oriente | Aguas de Malambo | Aguas Regionales | Aguas Nacionales | E.P. Rio | Emvarias |
|--------------------|------------------|------------------|------------------|------------------|----------|----------|
| Main members       | 57%              | 68%              | 69%              | 86%              | 84%      | 77%      |
| Alternate members  | 54%              | 8%               | 20%              | 32%              | 7%       | 36%      |
| Permanent guests   |                  |                  |                  |                  |          | 85%      |

Alternate members shall only attend the meetings of the board of directors in the absence of the main member.

## Boards of directors of the energy companies in Colombia

This group of companies in Colombia consists of four organizations engaged in the provision of public utilities involving power generation, distribution, transmission, and commercialization.

- Empresa de Energía del Quindío S. A. E.S.P. – EDEQ
- Central Hidroeléctrica de Caldas S.A. E.S.P. – CHEC
- Centrales Eléctricas del Norte del Santander S.A. E.S.P. – CENS
- Electrificadora de Santander S.A. E.S.P. – ESSA

### Average attendance at board's meetings

In the period between April and December 2017, the general average attendance of main and alternate members was 78% and can be observed in the table below.

| Average attendance | EDEQ | CHEC | ESSA | CENS |
|--------------------|------|------|------|------|
| Main members       | 97%  | 90%  | 55%  | 67%  |
| Alternate members  | 46%  | 33%  | 81%  | 84%  |
| Permanent guests   |      |      |      | 78%  |

Alternate members shall only attend the meetings of the board of directors in the absence of the main member.

## Boards of directors of Grupo EPM's companies in Latin America

Grupo EPM defined an engagement model with the international affiliated companies that offers guidelines from EPM, as the parent company, on governance mechanisms, and regular management is carried out autonomously at each affiliated company. At them all, EPM appoints external members who provide a strategic and independent vision to the boards of directors and who, in addition, have an in-depth knowledge of the market and the territories, which generates value for all the stakeholders.

### Average attendance at board's meetings

In the period between April and December 2017, the general average attendance per member of the board of directors, Directorate or CDAs (areas) was 77% and can be observed in the table below:

## Water and sanitation companies in Latin America

| Average attendance | Ticsa | Adasa |
|--------------------|-------|-------|
| Main members       | 82%   | 90%   |
| Permanent guests   | 60%   | 75%   |

Alternate members shall only attend the meetings of the board of directors in the absence of the main member.

## Energy companies in Latin America

| Average attendance | ENSA | Delsur | Eegsa Trelec | Comegsa | Credieegsa | DECA II | EPM Transmisión Chile | EPM Chile and Los Cururos | HET |
|--------------------|------|--------|--------------|---------|------------|---------|-----------------------|---------------------------|-----|
| Main members       | 89%  | 81%    | 91%          | 92%     | 91%        | 94%     | 75%                   | 100%                      | 70% |
| Alternate members  |      | 60%    | 3%           | 7%      | 8%         |         |                       | 0%                        |     |
| Permanent guests   |      | 40%    |              |         |            |         |                       |                           |     |

The general average attendance was 60%.

Alternate members shall only attend the meetings of the board of directors in the absence of the main member.

For more information on the average attendance of each board member per company, see Annex 6: Attendance at boards of directors of Grupo EPM on this report.

## Assessment of the boards of directors of Grupo EPM

In order to obtain accurate information on the management of the boards of directors, the degree of compliance with the performance commitments and the management that each of its members has assumed, the value that its performance adds to the company, and the recommendations to make the board of directors a highly effective governing body, since 2014, a unified self-assessment methodology of the Grupo EPM's boards of directors has been implemented on an annual basis.

The survey used consists of 40 questions grouped into four items, with a five-point response scale to measure the level of compliance, 1 being the lowest level and 5 the highest level, and N/A for questions that do not apply.

The items assessed include the following:

- Relationship of the board of directors with the company's management.
- Performance and effectiveness of the board of directors as a collegiate body.
- Management of the committees of the board of directors (if applicable).
- Individual performance as a member of the board of directors.

Additionally and in order to strengthen the assessments of the boards of directors and to adopt best practices on this matter, in 2017, an additional assessment mechanism known as Assessment from the Management was implemented. The purpose of this mechanism is to provide a more comprehensive vision of the management of the boards of directors and to assess the degree of alignment and interaction between the directorate (board of directors) and the management (senior management) of the companies.



The boards of directors of the companies in the energy business in Colombia continue to be the ones with the best results in their self-assessment, which shows the synchrony and alignment of the expectations among the governing bodies.

Despite the good results, the challenge still remains regarding the definition of an agenda that properly combines strategic discussion with everyday approving issues.

This is a common challenge to all boards; an improvement in business planning will lead to an improvement in the planning of the meetings' agenda.

| Results from the self-assessment of the boards of directors in the international water and sanitation companies |       |      |       |      |
|-----------------------------------------------------------------------------------------------------------------|-------|------|-------|------|
| Item                                                                                                            | Ticsa |      | Adasa |      |
|                                                                                                                 | 2017  | 2016 | 2017  | 2016 |
| Relationship of the board of directors with the company's management                                            | 4.25  | 4.28 | 4.71  | 4.74 |
| Performance and effectiveness of the board of directors as a collegiate body                                    | 4.17  | 4.39 | 4.88  | 4.81 |
| Individual performance as a member of the board of directors                                                    | 4.10  | 4.63 | 4.86  | 4.94 |
| Management of the committees of the board of directors                                                          | 4     | 4.22 | 4.81  | 4.92 |

| Results from the self-assessment of the board of directors in the international energy companies |      |      |        |      |         |      |           |      |      |      |
|--------------------------------------------------------------------------------------------------|------|------|--------|------|---------|------|-----------|------|------|------|
| Item                                                                                             | ENSA |      | Delsur |      | DECA II |      | EPM Chile |      | HET  |      |
|                                                                                                  | 2017 | 2016 | 2017   | 2016 | 2017    | 2016 | 2017      | 2016 | 2017 | 2016 |
| Relationship of the board of directors with the company's management                             | 4.68 | 4.67 | 4.47   | 4.75 | 4.49    | 4.63 | 4.50      | 4.42 | 3.97 | 4.00 |
| Performance and effectiveness of the board of directors as a collegiate body                     | 4.90 | 4.64 | 4.80   | 4.84 | 4.52    | 4.83 | 4.65      | 4.66 | 4.65 | 4.52 |
| Individual performance as a member of the board of directors                                     | 4.86 | 4.89 | 4.87   | 4.88 | 4.67    | 4.88 | 4.56      | 4.88 | 4.91 | 4.81 |
| Management of the committees of the board of directors                                           | 4.88 | 4.93 | 4.95   | 5.00 | 4.88    | 4.88 | N.A.      | N.A. | N.A. | N.A. |

For the group's companies in Latin America, the challenge continues to be to instill the spirit of Grupo EPM's corporate governance, in order to strengthen the unity of purpose and direction of the group.

In accordance with the recommendations of some members of the board of directors and with the results of previous assessments, the duration and number of face-to-face boards in the countries of origin of each company has increased, in order to know more about the regions, cultures, and companies where EPM operates, and to better monitor management.

### Remuneration of the boards of directors of the companies of Grupo EPM

At Grupo EPM, remuneration was defined based on studies that consider the main trends of the market in terms of compensation for board members. Additionally, aspects such as geography, size of the company, and degree of intervention of EPM were taken into account.

It should be noted that, at Grupo EPM, attendance not only to the meetings of the board is considered, but also to the committees in the companies that have these spaces. At each shareholders' meeting, the amount to be paid to the external members of the boards of directors is defined annually.

EPM's employees who act as members of the board of directors in Grupo EPM's companies do not receive additional remuneration for this role.

### Assessment of Grupo EPM's managers

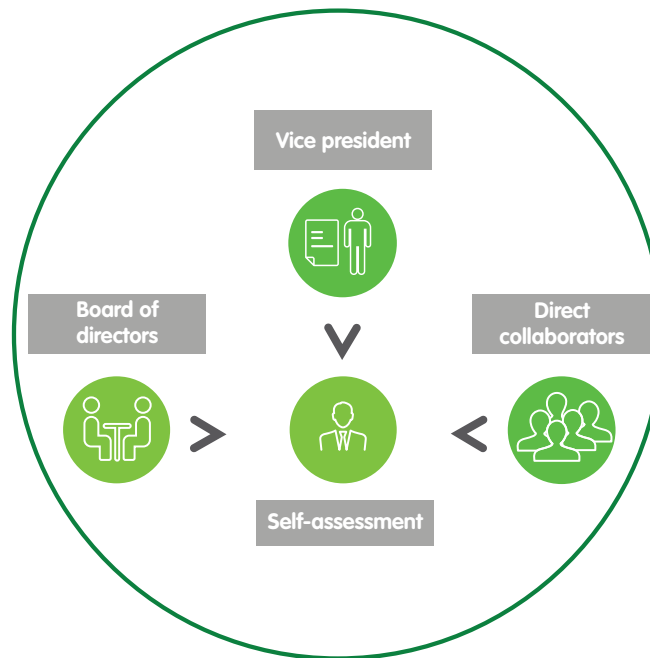
Just as the CEO and leader of Grupo EPM is assessed, the managers of the companies of the group are also assessed based on the quantitative results of their management (**the what**) and the way in which said results were obtained (**the how**).

The results obtained from the Balanced Scorecard, as well as the coherence of the management style of each manager with the behaviors and actions that Grupo EPM has defined for its leaders, are considered.

In 2017, the management style indicator was measured based on a multi-rater tool which enabled assessing the descriptors associated to the nine organizational actions defined for Grupo EPM. The actions are behaviors that show the presence of the cultural features of the group, defined to enable its strategic planning.



## Multi-rater tool



## Results

The assessment of the management style indicator is made during the annual meeting of the board of directors, and through a methodology based on dialogue, each collegiate body concludes whether the manager:

- Does not comply;
- Complies with the actions; or
- Shows superior actions that allow him or her to be a role-model leader in the group.

This evaluation is part of the CEO's goal chart and is known as CEO Leadership indicator, and, in those cases where the company has variable pay, it makes a difference to the annual bonus.

From this assessment exercise, a strengthening plan for the CEO and a public statement about his/her management are defined, which will be included in the Annual Management Report of the corresponding company.

## Meeting of executives of Grupo EPM

Since 2014, the management team of Grupo EPM, made up of EPM's vice presidents and the managers of the operating affiliated companies in Colombia and Latin America, led by the CEO of EPM, has met every six months with two main objectives:

- To create a shared vision of the group.
- To empower the companies' leaders as the group's leaders.

In each of the meetings, a specific topic is addressed, which is aligned with the strategic moment of the group and which strengthens its unity of purpose and direction.

In 2017, the seventh meeting focused on clarifying the role of EPM as a corporate core and its relationship with its subsidiaries and subordinates. In an exercise of teamwork and awareness of the importance of the service, executives participated in a workshop where the five key missions of EPM (strategic leadership, capital, capacities, control, and identity) in its role as a corporate core were consolidated.



## Other events on corporate governance

### At the international level

The Corporate Government Unit of EPM received visits and addressed requests with the purpose of promoting the strengthening of corporate governance practices among companies in the sector and providing context of the corporate governance model implemented in Grupo EPM as a differentiating element that generates trust and promotes transparency in its management practices.

- **Perú:** Delegation of 20 executives and experts from the water and sanitation sector, coordinated by Proagua (Program for the modernization and strengthening of the water and sanitation sector) and GIZ (German Corporation for International Cooperation).



*"It has been very useful for us, and we all left your facilities with a great inspiration and willing to continue working on the topics of corporate governance and energy efficiency in the companies providing these services in Peru."*

*Lena Hommes, GIZ – Proagua*

- **Costa Rica:** Delegation of executives from Grupo ICE (Costa Rican Institute of Electricity) to reference the practices implemented by EPM.



*"EPM is an example among multinationals; which is why we wanted to get in touch with several of its vice presidents and be able to see first-hand how they achieved the milestones and challenges in terms of business transformation and thus be able to apply them in the changes we are having at ICE to grow in the market."*

*Harold Cordero Villalobos, Head of ICE Corporate, Strategy, and Business Development Division.*

- **Inter-American Development Bank (IDB):** Delegation consisting of the infrastructure manager of the bank and a team of experts of this organization. The governance model adopted by EPM was presented with emphasis on the main practices implemented.
- **Uruguay:** Local authorities of Montevideo. Visit encouraged by the IDB. The importance of the corporate governance model was highlighted, and the exchange of experiences was encouraged.
- **OECD, CAF, and the World Bank: Corporate governance network for public companies:**
  - Along with Hawkamah, the Institute For Corporate Governance in the United Arab Emirates, EPM joined the workshop on corporate governance for public companies as part of the second version of the Global Network of Corporate Governance for public companies.
  - 5th annual meeting of the Corporate Governance Network for companies in the public sector in Latin America.
- **Inter-American Investment Corporation (IIC):** Participation in the Corporate Governance Symposium as part of the Sustainability Week 2017.

#### At the national level

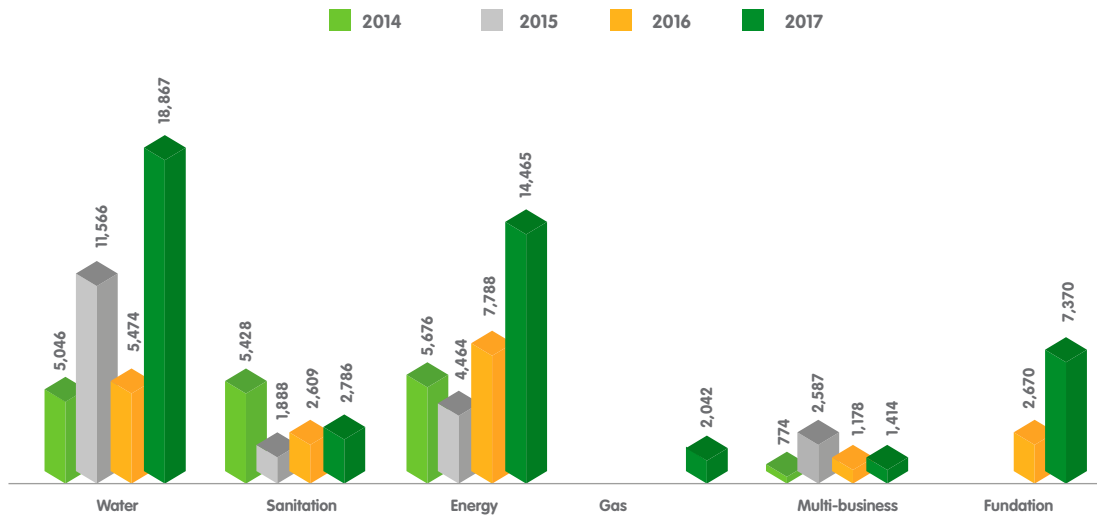
EPM became one of the **founding members** of the **Colombian Institute of Corporate Governance (abbreviated ICGC in Spanish)**. It is a non-profit organization conceived as an initiative so that there is, in Colombia, an organization with the **“purpose of independently and inclusively promoting the development of the country in terms of corporate governance**, thus contributing to its economic and institutional strengthening.” This initiative was led by the CESA (College of Higher Management Studies) with the support of the SECO (Swiss program of cooperation for economic development) and the International Finance Corporation of the World Bank Group (IFC). It also receives the support of multilateral organizations such as the Inter-American Investment Corporation of the BID Group (IIC) and the Development Bank of Latin America – CAF.

### Governance mechanisms of Grupo EPM - Governance Agreement

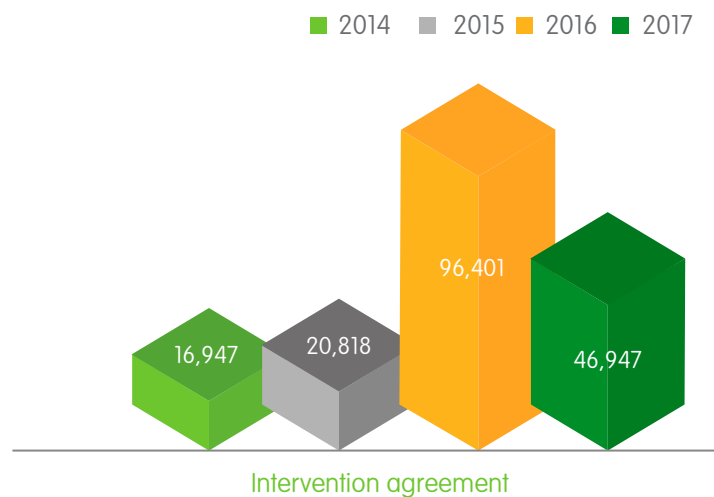
The **Governance Agreement**, a document that formally defines and delimits the relationships between the companies that make up Grupo EPM, continues in its consolidation path, in which we highlight the subscription of agreements among the group’s companies aimed at promoting the achievement of the corporate goals and exchanging services in order to increase competitive advantages.

In 2017, EPM **Transmisión Chile S.A. and Empresas Públicas de Rionegro (E.P. Rio)** subscribed to this agreement.

## General report of the transaction agreements

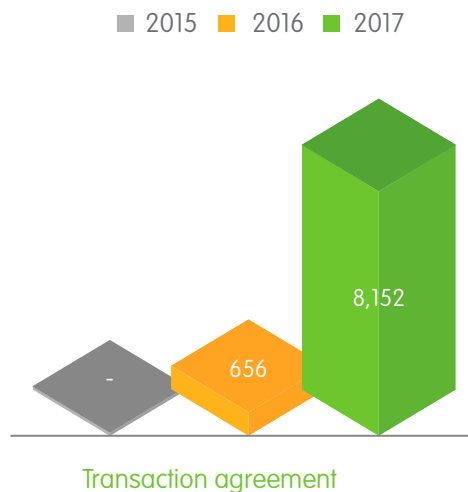


- **Water business:** Inclusion of E.P. Rio to Grupo EPM. We highlight four agreements (commercial services, IT, engineering, and project and technical and operational services management) worth COP 11.17 billion.
- **Energy business:** We highlight the agreements for support in the group's integrated services for Information Technology (ESSA, three agreements - COP 3.83 billion; EDEQ – COP 1.23 billion; and CENS – COP 1.29 billion).
- **Gas business:** First transaction agreement with the affiliated company EV Alianza Energética for the operation and maintenance of the thermal generators of La Alpujarra District Cooling worth COP 2.04 billion.
- **Fundación EPM:** Subscription of agreements for social and environmental management services in projects in the territories where Grupo EPM is present.



The variation is mainly due to the services of formulation and execution of projects (design and construction) for wastewater treatment plants and sludge system in purification, contracted with the affiliated company Ticsa to improve the quality of the service in the Valle de Aburrá.

## General report of the intervention agreements



EPM's shared services center consolidated the portfolio of financial services (accounts payable, treasury, and accounting management) increasing by 10% the total value of interventions in the water affiliated companies of Grupo EPM in Colombia. Additionally, in November, Aguas de Malambo signed an intervention agreement worth COP7.43 billion for the management of its integrated business cycle.

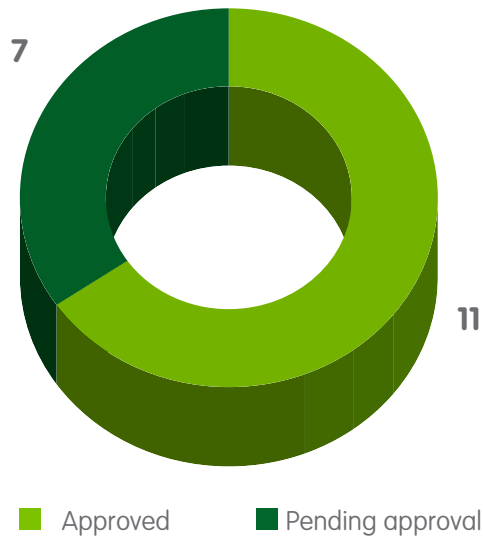
## Grupo EPM's policies

Policies in Grupo EPM are approved in cascade, that is, once the Board of Directors of EPM as the parent company receives the policy, the responsible area is in charge of replicating it in the 11 operating affiliated companies in Colombia.

In 2017, EPM adopted 18 policies, of which seven are pending approval in two or more affiliated companies.

For 2017, the Board of Directors of EPM approved the modification of the Asset Management policy.

### Grupo EPM's policies



### Related party transactions

The governance agreement and the relationships arising therefrom, as well as the annual statement of transfer prices, are articulated with the information published in the financial statements under IFRS as elements that delimit the operations with the related parties of Grupo EPM. EPM's transactions with its related parties are executed under conditions equivalent to those that exist in transactions between independent parties, in terms of their purpose and conditions. The description of the operations with the most relevant related parties, including the transactions between companies of the group, can be found in the financial report that is an integral part of the annual sustainability report of Grupo EPM.

Since the implementation of the IFRS, in 2013, EPM adopted the definitions established by IAS 24 regarding related parties. Moreover, since EPM and the companies of the group adopted the IFRS, specific financial policies and guidelines for this matter were established in accordance with the applicable financial regulations. In addition, during 2017, the implementation of internal measures to improve the management and disclosure of operations with related parties was included in the group's project bank.

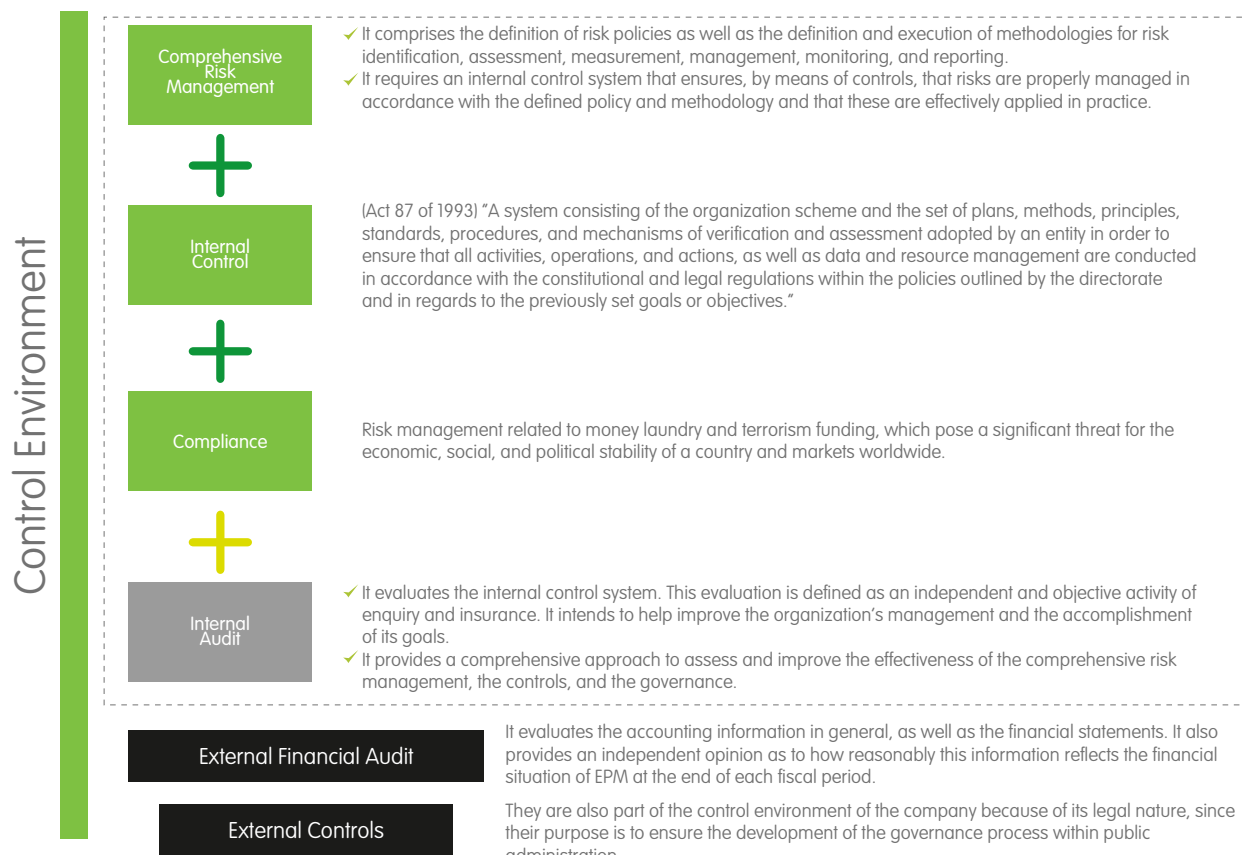
# Accountability

## Definitions of the group's control environment

The EPM's public nature, the economic sector in which it operates, and its condition as an issuer of securities, make it a company broadly controlled by external entities and internal control mechanisms regulated by the law, in addition to those that have been voluntarily adopted and have been implemented in the companies of the group.

Control environment is a comprehensive concept that covers every issue related to risk management, internal control system, compliance, and internal and external verification. It allows the company to have policies, processes, procedures, activities, and information that ensure that both purpose and direction stay aligned and in compliance with the internal and external legal framework that regulates it; all of this intending to achieve the objectives and the BHAG of the group. It also allows cohesion between the companies that are part of it.

Detail of some concepts associated with the control overview.





## Comprehensive Risk Management

In 2017, the relevance of this topic was reinforced, which was reflected in:

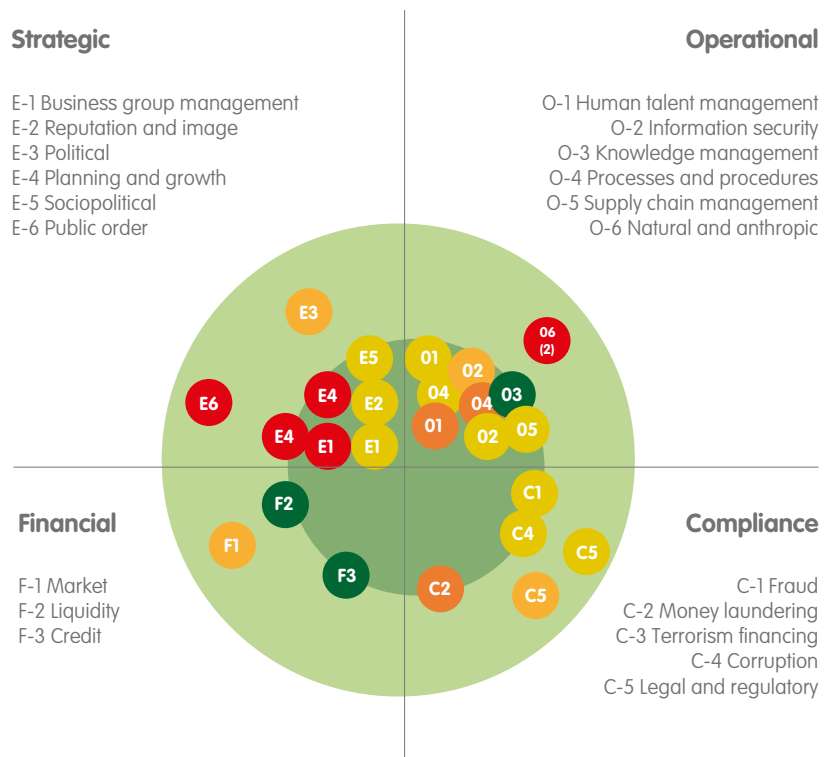
- Increase in the amount of requests for advice on risk management in projects and contracts.
- 109 specialized risk analyses exercises for making decisions based on risk management.
- The addressing of group risks was included in the performance goals of the senior management.

Disclosure of issues related to risks:

- Audit Committee of the EPM's Board of Directors: progress reports on comprehensive risk management, presentation of the corruption map, prioritization of group risks, reports on the Guatapé incident, and risk management based on extreme circumstances.
- EPM's Management Committee: progress reports on comprehensive risk management in EPM and the group.
- Environmental Management Committee: analysis for the optimization of resources and efforts for the treatment of risks with environmental impact.

The group's, company's, and business' risks were monitored, achieving a permanent update of their status. At the end of the year, an adequate management of the risks was observed.

### Risk Classification – Risk levels at Grupo EPM (updated in 2017)



## Actions to mitigate risks

The risk treatment plans defined during 2016 were executed as planned in 2017 by the work teams. There are actions that, according to the plan, have completion dates in 2018 and, therefore, continue in progress.

In compliance with the improvement plans, different actions were taken:

- Management before the different regulatory commissions.
- Implementation of improvements in the financial management of infrastructure projects (capex structuring, foreign exchange hedging strategies, among others).
- Inspections of the loss control program.
- Clarifications on the configuration, scope, and engagement of the corporate core with the aim of improving the engagement model of the parent company with the affiliates in Grupo EPM.
- Review and articulation of local development plans and land use plans.
- Advance in the development of the business continuity management initiative, based on the framework of the Disaster Recovery Institute.
- Implementation of the phases required for the proper operation of the process model for the supply chain.
- Progress in the implementation of the safety management plan in a comprehensive way in Grupo EPM.

Each risk identified in the matrix of Grupo EPM is supported by a vice president of EPM responsible for defining the improvement actions to mitigate it and engaging the stakeholders relevant to its management.

## Occurrences in 2017

Some risks that affected the insurance policies taken by EPM, through which the risks of the company are transferred to the insurance market, materialized in 2017:

- **Property damage policy:** At the Playas hydroelectric power station, there was a fire in a transformer that spread to the other two transformers and equipment located on the first floor of the cavern and resulted in their total loss and the unavailability of the power station during four months. From then on, through a provisional solution, two units have been put into operation and it is expected that the last unit will start to operate by the end of February 2018. Coverage was obtained from the reinsurance company as a result of the studies and analyses of the event. Likewise, USD 4,000,000 have been paid in advance for this incident.
- **Civil liability policy:** In the municipality of Santo Domingo, Antioquia, an event occurred due to a fault in the EPM infrastructure and caused the death of one person, minor injuries to other people, and property damages to four homes, with which the company reached a compensation agreement for an amount close to COP 2 billion.
- **Directors and administrators policy:** Some investigations by the control bodies have involved the recognition of defense expenditure in favor of the insured parties.
- **Compliance policies:** Regarding the breach of contracts by contractor companies that were reported to insurance companies by virtue of the required contractual guarantees, requests processed implied compensations amounting to COP 8 billion.
- **Employee disloyalty and financial risks policy:** There was an employee disloyalty event consisting in the appropriation of copper cables by an estimated value of COP 2 billion.

## Achievements in the 2017 comprehensive risk management

The risk map of Grupo EPM is the main input for updating the maps of the management levels defined in the comprehensive risk management model. During 2017, the following risk maps were updated:

- **Businesses:** Generation, Transmission and Distribution, Gas, Water Supply, Wastewater Management, and Solid Waste Management.
- **National companies:** CENS, ESSA, CHEC, EDEQ, Aguas de Malambo, Aguas de Oriente, Aguas Regionales, Aguas Nacionales, EPM Inversiones, and Emvarias.
- **International companies:** Los Cururos Wind Farm, Adasa, EPM Chile, HET, Ticsa, and Delsur.

This year, the first versions of the risk map were developed for the following companies:

- Trelec, a company that belongs to Corporación Deca II, based in Guatemala.
- EPM Transmisión Chile.

Also, the following results were achieved:

- Updating of risk maps of 57 documented and prioritized processes in the group's companies.
- Risk analysis in 144 projects.
- Risk analysis in 154 contracts with values above 5,000 monthly minimum wages in EPM.
- 109 specialized risks analyses were conducted, including:
  - Risk management based on extreme circumstances.
  - Integration of banking portals.
  - Rymel case.
  - Servientrega and Efecty case.
  - Analysis of systemic risk in the wholesale energy market (WEM).
- Within the risk control program, 17 visits were made to generation plants, power substations, and operation and maintenance center facilities, generating reports for the treatment of the risks associated with individuals safety, fire, machine breakage, malicious acts by third parties, and continuity of the operation.
- The Business Impact Analyses (BIAs) of all EPM's businesses and energy affiliated companies were carried out.
- The work plan to update the Disaster Recovery Planning of information technology was started.
- As for the Protocol for Addressing Events and Crises (PADEC), 86% of EPM's heads of units, 188 professionals, and 15 operation and safety technologists were trained. In addition, a virtual course was designed and will be disseminated in 2018.
- The Vice Presidency of Communications was supported in the revision and updating of the communications manual for adverse events and crises.
- For the third year, the national and international insurance program and national brokerage service was consolidated with efficiencies in homogeneous technical conditions and premiums, accident management with uniform guidelines, and administrative efficiencies.
- Management and acquisition of a coverage to transfer the risk of cyberattacks was achieved with a specialized focus on possible impacts on the infrastructure of EPM's businesses.

## Maxseguros EPM

- It ratified its A- rating, stable outlook, with the firm AM Best (New Jersey), which demonstrates the confidence and support of the actions carried out over the past year.
- As part of the comprehensive risk management chain for Grupo EPM, Maxseguros contributed to the renewal of the policies for the 2017-2018 period, achieving very good results despite the existence of relevant loss events.
- It maintained its retention in the policies of property damages + profit loss, directors and administrators, and disloyalty and financial risks; and participated as a facilitator in the civil liability and errors, and omissions policies.
- It supported the firm offer for cyber risk coverage, which received the approval, analysis, and technical support by the Comprehensive Risk Management department and other areas involved of EPM. It was successfully closed in December 2017.
- Maxseguros EPM participated as a reinsurance company in the insurance chain and obtained first-hand information, as well as presence in the processing and adjustment of incidents.
- The Maxseguros business case was evaluated with very positive results.

## Corporate Audit Management

The corporate audit activity aims to contribute to the improvement and protection of the organization value, providing insurance, advice, and analysis based on risks. Pursuant to this purpose, the risk-based audit plan approved by the Board of Directors was completely executed during 2017, covering thus the processes with the highest risk level in accordance with the prioritization criteria defined in the methodology. Also, the audit team of EPM allocated 13% of the operating time to support the audit plan of the group's affiliated companies, besides the direct support during the management and development activities of the same.

As a result of these audit activities, the team identified improvement opportunities that are managed by the corresponding responsible people and departments through the formulation of improvement plans and the verification of their compliance and effectiveness.

During 2017, the indicator for the formulation of improvement plans for audit procedures reached 99% in Grupo EPM.

The Internal Control System assessment performed by the audit highlighted the following qualitative results:

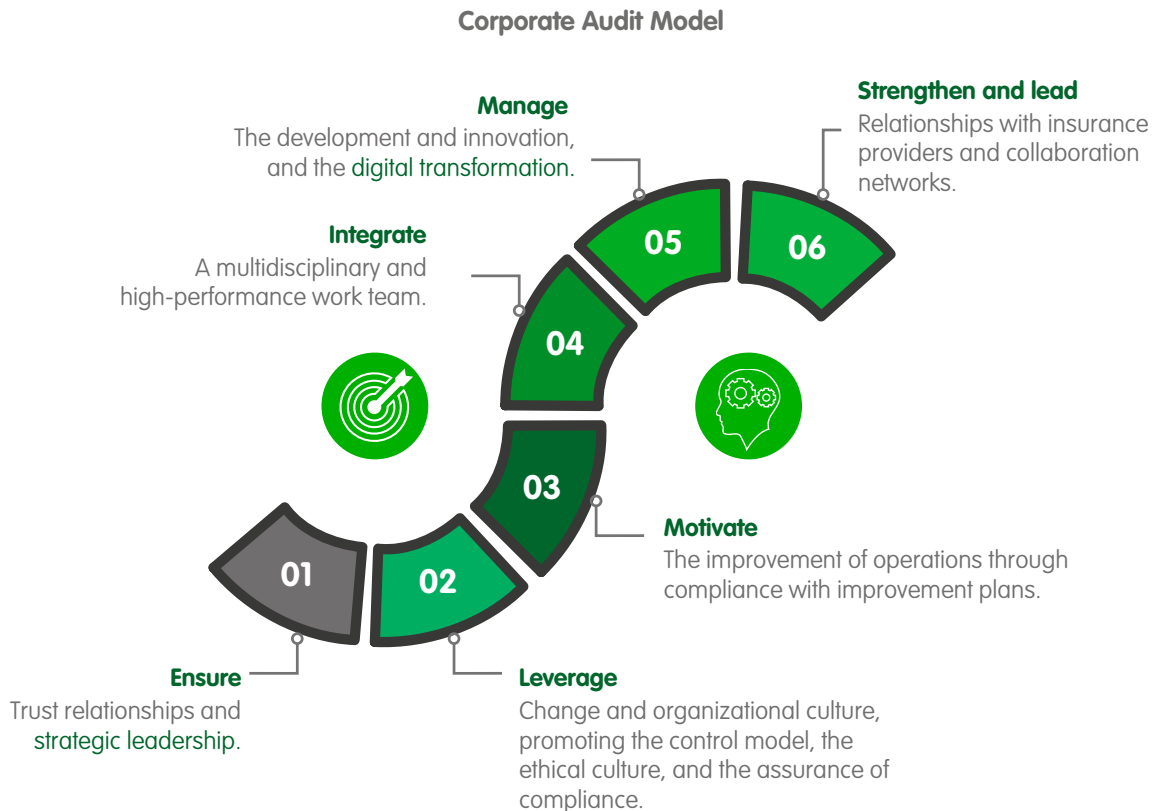
### Strengths:

- The culture of managing improvement plans in the organization has gained strength since the implementation of the Kayros application and is expected to be consolidated with the arrival of Avanza, an application for managing and monitoring the implementation of these improvement plans.
- The opening and closing of performance and development commitments was activated with the deployment of strategic indicators. They become the main input for the cascading construction of such commitments.
- Implementation of the elements of ethical management and improvement plans, seeking a better control environment.

### Aspects to be improved:

- Strengthening the business rule associated with document production, management, processing, and organization.
- Completing the documentation of levels three (activities) and four (tasks) defined in the new process model.

As a result of the strategic approach of the Corporate Audit for the 2018-2025 period, the strategic initiatives are framed within six management focuses:



### External Audit Plan

Due to its legal nature as an industrial and commercial state-owned company, EPM is not obliged to have external financial audit. However, as a good corporate governance practice and in order to fulfill the commitments that the company has with multiple banks, EPM hired an external financial auditor. The audit scope includes the opinion on the financial statements, an annual evaluation of the company's internal control system (which is relevant for the preparation and reasonable submission of the financial statements), an audit to the information reported to the CREG by the network operators and related to the expenses of administration, operation and maintenance (AOM), and a specific audit to certify EPM's fulfillment of the commitments established in the Legal Stability Contract, as well as the verification of the corporate environmental management index (IGAE), verification of the sustainability report, and the financial audit for the Cooling District project.

Deloitte & Touche was selected as the EPM's financial external auditor for 2017. This company was also proposed as the tax auditor or external auditor for the group's affiliated companies.

Deloitte & Touche is a leading private firm that provides professional services worldwide, and it has been cataloged within the four major audit firms in the world. The services it provides worldwide revolve around consultancy, taxes, legal advice, financial advice, and auditing.

| Number of contracts | Purpose                                                                                                                                                                                                                                 | Payments in 2017                  |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| CT 2013-000094-R4   | <p>EPM requests the CONTRACTOR to provide the external audit services required by Empresas Publicas de Medellín E.S.P.</p> <p>Addendum to the contract for evaluation for the bond issuance and tax evaluation for request to DIAN.</p> | COP 4,569,630,395<br>(before VAT) |

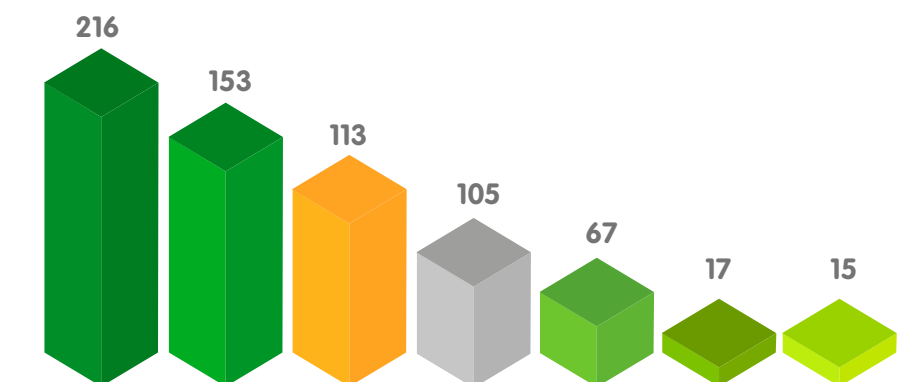
### Insurance providers

The exercise of control carried out by the external insurance providers (control entities) to the companies that are part of Grupo EPM has its origin in the Colombian National Constitution. According to this fundamental law, the control objects are different for each entity; however, in practice, the control is materialized on the same projects, processes, issues, or topics.

External insurance providers are all municipal, departmental, or national public entities that exercise tax, disciplinary, criminal, or managerial control over each of the companies of Grupo EPM.

Based on the tax control regulations for public entities, it is necessary to establish mechanisms that favor the proper interaction and communication of Grupo EPM's companies with the different insurance providers.

In compliance with its accountability responsibility towards the different external insurance providers in charge of tax, disciplinary, and criminal surveillance, EPM addressed 686 requirements made by the external control entities during 2017, with a 100% service indicator distributed as shown in the following graph:



- Office of the Comptroller General of Medellín
- Office of the Inspector General of Colombia
- Ombudsman's Office
- Superintendency of Public Utilities
- Office of the Attorney General of Colombia
- Others
- Office of the Comptroller General of the Republic

## Compliance management

### Mechanisms to prevent fraud, corruption, and bribery

Transparency in Grupo EPM is a management practice and a fundamental principle for good governance that allows preserving trust and credibility relationships with its different stakeholders.

Grupo EPM always delivers public, understandable, timely, and verifiable information, complies with the regulations governing its management and has high levels of self-regulation, showing clear rules regarding organizational culture standards and principles, mechanisms for engagement, interaction, and verification of compliance with objectives and goals.

The mechanisms to prevent fraud, corruption, and bribery in Grupo EPM strengthen the capacities for participation, monitoring, influence, and dialogue with all public and private actors; therefore, there are self-regulatory initiatives and instruments that make it possible to preserve an environment of security, transparency, and trust.

Among the mechanisms established, the following stand out: Grupo EPM's Code of Ethics, Corporate Governance Manual, Code of Conduct for Suppliers and Contractors, Conflict of Interest Statement, Manual of the Risk Management System for Money Laundering and Terrorism Financing (SARLAFT), and several additional initiatives.

## EPM Management

Mechanisms to prevent fraud, corruption, and bribery:

- **Transparent Contact Ethics Hotline:** It operates through website, call center, and email. Since 2017, there is a new national and international phone channel in all the geographical areas where the group's companies operate; moreover, **the mobile application for IOS and Android** was developed and put into production. This mechanism, besides reporting incidents, has an infographic that provides instructions and training about it. It shows the most relevant cases, lessons learnt, and annual statistics. See infographic at: [http://www.epm.com.co/site/portals/contacto\\_transparente/ie.html](http://www.epm.com.co/site/portals/contacto_transparente/ie.html)
- **Transparency Statement:** This voluntary initiative was accepted in 2017 by 91% of the collaborators in EPM and those with a potential conflict of interest. These statements strengthen the trust between company and employee and between company and citizenship. This statement is being implemented in the energy affiliates in Colombia.
- **Policy of zero tolerance to fraud, corruption, and bribery:** During 2017, this policy was adopted in all the affiliates outside of Colombia, including Maxseguros, thus completing its implementation in all the companies of Grupo EPM.
- **Grupo EPM's Code of Business Conduct:** The document was reviewed and approved by the operating affiliates in Colombia. It is currently in the process of approval by the "Ethical Management Model" project.
- **Measurement of the Ethical Climate:** It was performed for the second time; this time as a chapter of the organizational climate survey. It was answered by 5,904 employees of EPM. The model proposed by USAID was applied this year.
- **Identification of Risk Scenarios for EPM's employees:** Preventive control that has been developed for four years in EPM. It was implemented in the affiliates ESSA and Emvarias.
- **Anti-corruption and Citizen Services Plan (PAYAC):** Applying the Comprehensive Risk Management Methodology of EPM, the corruption risk map was updated and, according to the regulations, the components of said plan were published on the website.
- **Collective Agreement of the Electricity Sector:** EPM and all its energy affiliated companies in Colombia participate in the fight against corruption and in the promotion of free competition, led by the National Operation Council (CNO) and XM S.A. E.S.P., with the supervision of the Transparency Secretariat of the Presidency of the Republic of Colombia, the Transparencia por Colombia Corporation, and UNODC. Likewise, they participate in the elaboration and promotion of the manual of practices of free competition in the electricity sector, the corruption risk map of the electricity sector, and the V Forum on Ethics of the Electricity Sector.
- **Towards Integrity program, an alliance between the public and private sectors against corruption in Colombia:** Collective action that seeks to reduce corruption situations through public-private coordination and the exchange of knowledge, with a view to strengthening the development and implementation of measures for the prevention, repression, and criminalization of corruption, in line with the United Nations Convention against Corruption (UNCAC). EPM is one of the strategic partners of this initiative and during 2017 it participated in the activities scheduled both in Medellín and in the cities where the group is present. These activities focused on the promotion of transparency and integrity and addressed topics related to joint strategies for the prevention and fight against corruption.



### Mechanisms to Prevent Money Laundering and Terrorist Financing (ML/TF)

- **Celebration of the international day for the prevention of money laundering in Antioquia:** The activity was held in the company's building with the presence of about 300 compliance officers and employees, professionals in the areas of risk, audit, control, among others, and counted on the participation of national authorities such as the Office of the Attorney General of Colombia, the Office of the Inspector General of Colombia, and the United Nations Office on Drugs and Crime.
- **Antioquia's Real Sector Committee:** EPM took part in the committee, strengthening its consolidation and management. In 2017, Grupo EPM was recognized, within the real sector, for the progress made in the implementation of the ML/TF risk management system, thanks to its good practices at the national level.
- Design and implementation of controls for third party identification in the affiliated companies of Guatemala and El Salvador.
- Definition and unification of ML/TF clauses in model documents for national affiliates and EPM.
- Training and advice on the analysis of ML/TF alerts for internal clients of EPM, national affiliates, and foreign affiliates.
- Advice to affiliated companies in Chile on the interpretation of Act 20,393 "Criminal Liability of Legal Entities" and selection and appointment of the prevention officer for those companies.

### Mechanisms for the Protection of Personal Data (PPD)

- EPM participated in the Information Security and Privacy component and received the "**Online Government Excellence Seal**" awarded by the Ministry of Information and Communication Technology as a recognition to the Colombian entities that provide high-quality procedures, services, and products available to its users by electronic means. The category in which the company was awarded is **Open Government**, which evaluates the quality of the open data and the participation mechanisms available to the community.
- **International Certification as a Certified Expert in Data Protection:** Course and evaluation conducted by Asobancaria in association with the Institute of Audit & IT-Governance of Barcelona (IA-ITG).
- **Accountability Guidelines:** Progress in the implementation of the requirements of this guide issued by the Superintendency of Industry and Commerce (SIC).

## Annual management report for stakeholders



### Public Accountability

Public accountability is a transparency and information openness act to our stakeholders and the society in general. In this sense, on March 17, 2017 EPM gave account of the Group's management during 2016. This exercise showed the progress made by Grupo EPM to fulfill its BHAG, based on the "4C+1G" strategy: closeness, coverage, consolidation, care for the environment, and growth.

During the discussion, mention was made of the follow-up of the main infrastructure, growth, and business development projects, as well as of the balance of the financial results of Grupo EPM in 2016 and the benefits of their good management for the community.

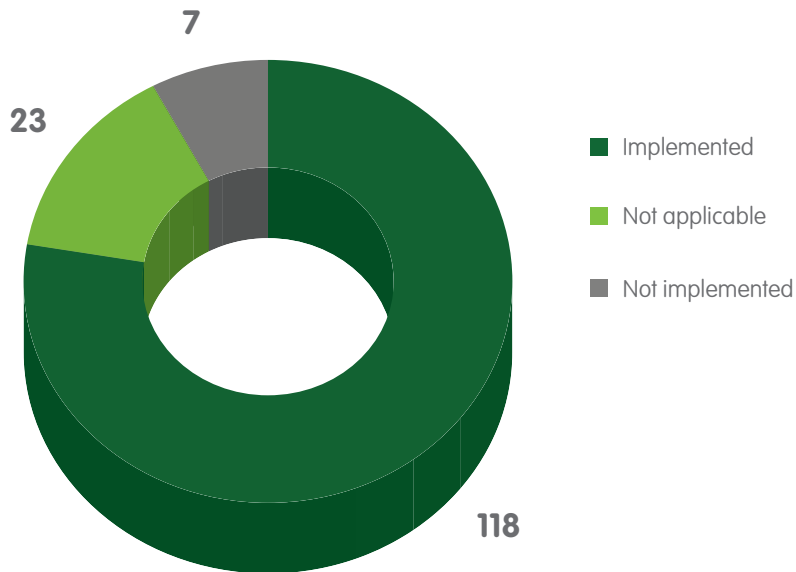
### Main corporate governance metrics

#### "Código País" Survey

Every year, EPM responds the Código País survey. In January 2018, the new Código País Implementation Report (IR) was submitted, which includes the corporate governance practices adopted and applied between January 1 and December 31, 2017.

### New Código País IR

No. of recommendations in EPM



### Transparencia por Colombia

The business transparency measurement is a voluntary exercise carried out periodically and independently by Corporación Transparencia por Colombia, national chapter of Transparency International, the largest anti-corruption civil collective worldwide.

This measurement was not applied in Grupo EPM in 2017, and all the efforts focused on the improvement actions suggested in the previous period. We highlight the definition of the Ethical Management Model, the adoption of the Group's Code of Ethics, the review, design, and suggestion of policies as framework for action on the ethical management, and the measurement of ethical climates, in addition to the actions that, as a whole, had an implementation plan in the group.

For more information and previous versions of these reports, visit:  
<https://www.epm.com.co/site/investors/corporate-governance/reports>

## Dow Jones Sustainability Index

EPM, being consistent with its permanent interest in adopting best practices in corporate governance, participated in the 2017 Dow Jones measurement.

### Dow Jones

Economic Dimension

57

EPM

65

Industry Average

The results suggest opportunities for improvement, framed in an ideal scenario regarding the composition of the Board of Directors and the remuneration structure of the executives. These opportunities for improvement will be subject to analysis to determine if they can be applied to EPM and incorporated into an action plan for 2018.

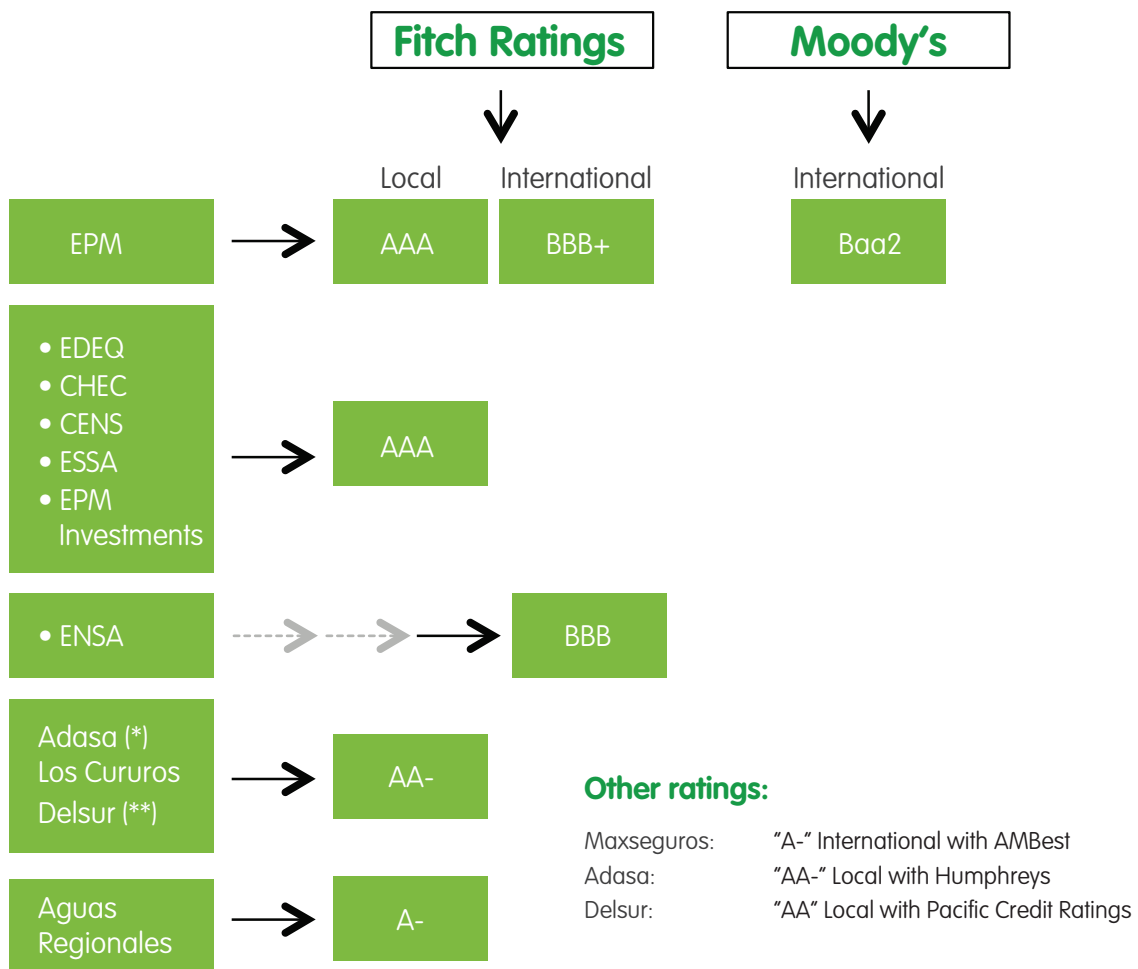
## Credit risk rating

EPM continues its practice of keeping constant communication with the risk rating firms, the investors, and the financial market, in a proactive way and corroborating the commitment of delivering sufficient and timely information under the transparency and equality criteria established in the Corporate Governance Code.

During 2017, it is worth highlighting the investment grade that the companies of Grupo EPM maintained, at the local and international level, demonstrating once again the trust of the local and international markets.

We also highlight the increase in the rating granted by Moody's to EPM, by raising its international credit risk rating to Baa2; the increase of the local rating of Aguas Regionales to 'A'; and the adjustment of the rating perspective of Los Cururos Wind Farm to stable—these last two granted by Fitch Ratings. EPM managed to maintain its international rating in "BBB+" and the local one in "AAA". The local ratings of the companies of the energy business stayed in "AAA" and those of the water business, mainly in "AA-".

The ratings granted supported the 2017 financing strategy, which included credits with the international financial sector amounting to approximately USD 1.7 trillion and intended to finance the general investment plan and the Ituango Hydroelectric Project; as well as credits amounting to approximately COP 704 billion intended to finance the general investment plan of the group's affiliated companies at the local level.



## Disclosure of information to investors

For EPM, trust is the pillar of its relationship with investors because it strengthens its reputation with the stock market players and facilitates the obtaining of safe and reliable resources to finance the investment and growth plans of the company. In this sense, EPM seeks to develop and continuously strengthen a strategy that allows it to consolidate trust and establish a long-term relationship with investors.

This strategy is materialized in an action plan that seeks to incorporate the best practices of engagement with investors, in such a way that they find in the company a permanent dialogue where an effective and recurrent communication flows, a relationship in which both parties are informed on equal terms, have accurate, clear, sufficient, and timely financial and non-financial information, and can evaluate and make investment decisions in the most convenient way.

Since 2013, EPM has obtained the annual IR Recognition granted by the Colombian Stock Exchange. For more information, visit <https://www.epm.com.co/site/investors/>



**Company with IR Recognition  
for issuers of securities since 2013**



Issuers that have voluntarily adopted the best practices in terms of information disclosure and engagement with investors.

# Corporate Governance Plan Grupo EPM


## Monitoring to the 2017 plan

Every year, the EPM's Board of Directors approves the **Corporate Governance Plan** included in this report. It consolidates the initiatives that will be developed on this matter in order to maintain a constant evolution in the topics related to corporate governance. This practice has been voluntarily implemented since 2006.

This plan includes activities to be carried out by the different dependencies of EPM, whose common objective is to improve the relationship between the company's and the group's governance bodies, enabling the achievement of unity of purpose and direction in an environment of transparency and accountability to stakeholders.

During the year, compliance with the proposed activities is periodically monitored and opportunities for improvement are identified to facilitate their compliance. In November 2017, the Management Committee of the EPM's Board of Directors was informed on the progress made in the plan.

| N | Emphasis                                                                  | % of achievement accumulated in 2017 |
|---|---------------------------------------------------------------------------|--------------------------------------|
| 1 | Strengthening of the property management                                  | 87%                                  |
| 2 | Strengthening of the Grupo EPM's governing bodies                         | 89%                                  |
| 3 | Strengthening of the intra-group engagement                               | 87%                                  |
| 4 | Strengthening of the framework for action of governance and its relations | 100%                                 |

| Convenciones                                                                        |                                 |
|-------------------------------------------------------------------------------------|---------------------------------|
|  | Achievement above 90%.          |
|  | Achievement between 75% and 90% |
|  | Achievement below 75%.          |

## Achievements and advances in EPM

- The Relations Framework Agreement reached 10 years and during 2017 its dissemination was reinforced in the internal communication media.
- Diagnosis of the interactions with the Municipality of Medellín.
- Evaluation and strengthening plan of the EPM's Board of Directors in 2017.
- Planning of the Board of Directors for 2018 (timetable).
- Implementation of a computer solution for the Board of Directors (Arca).
- Promotion of the implementation of improvement plans.
- Design and implementation of the Ethics Committee within the strategic committees.

## Achievements and advances in Grupo EPM

- Updating of the bylaws of the subordinate companies in Colombia.
- Updating of the rules of procedure of the boards of directors of the subordinate companies in Colombia.
- Evaluation and strengthening plan for the boards of directors of the group's companies.
- Planning of the boards of directors of the group's companies for 2018 (timetable and typical agenda).
- Implementation of improvements in the information system that enables the subscription and management of minutes of the Governance Agreement among the companies of Grupo EPM.
- Clarifications on the corporate core, scope, topics, group's framework for action, and implementation of expanded primary groups.
- Implementation of the mechanism for monitoring group's risks and definition of the risk profile by vice presidency.
- Implementation of ML/TF controls in subordinated companies in Colombia.
- Implementation of enquiry and verification procedures on public lists for contracts that require approval by the Board of Directors or equivalent (Delsur, Eegsa, and EPM Chile).
- Implementation of the system that supports the statement of transparency and conflict of interest in the energy subordinated companies in Colombia.
- Definition and adoption of the group's Code of Ethics.
- Updating of the planning and execution methodology for the audit process with a risk-based approach.

## 2018 – 2021 Corporate Governance Plan

The 2018-2021 Corporate Governance Plan was designed based on a multi-source analysis that consolidates a long-term vision that can be constantly updated.





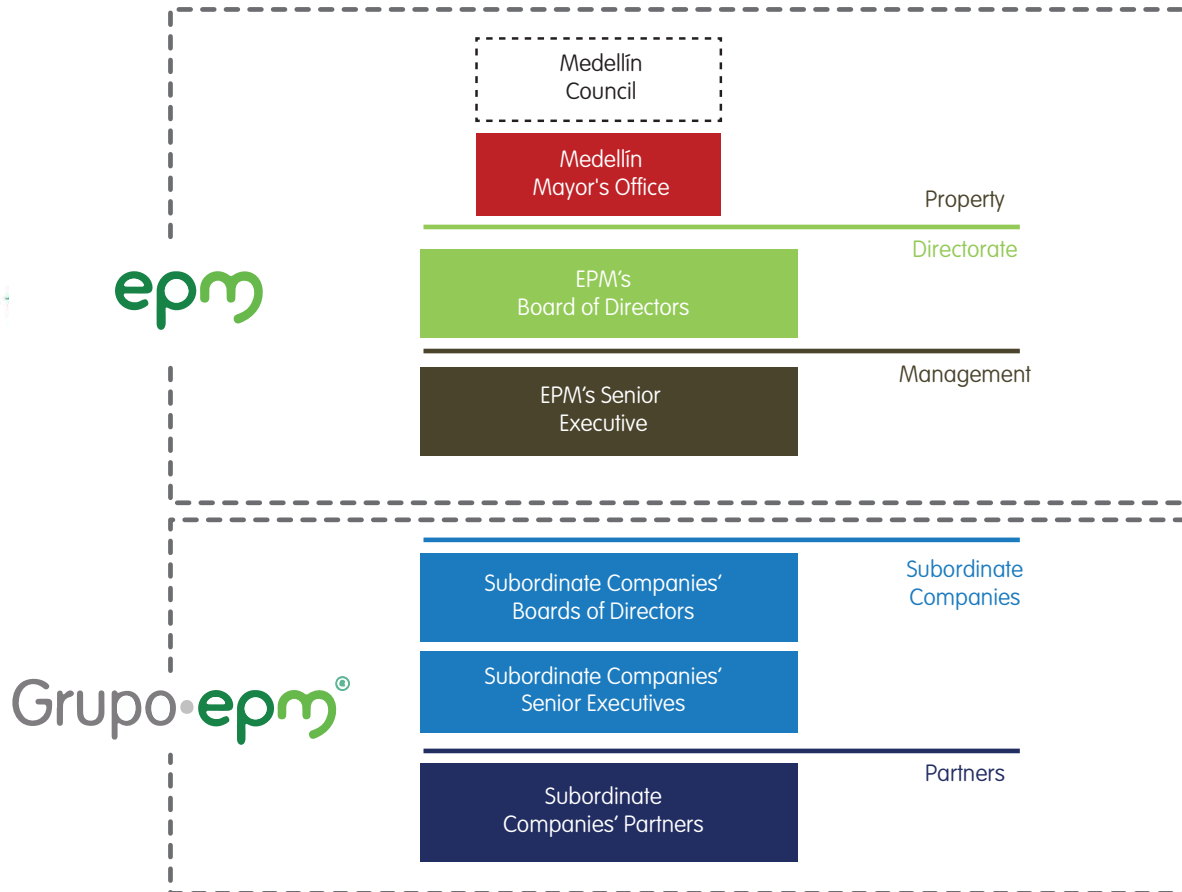


Annexes

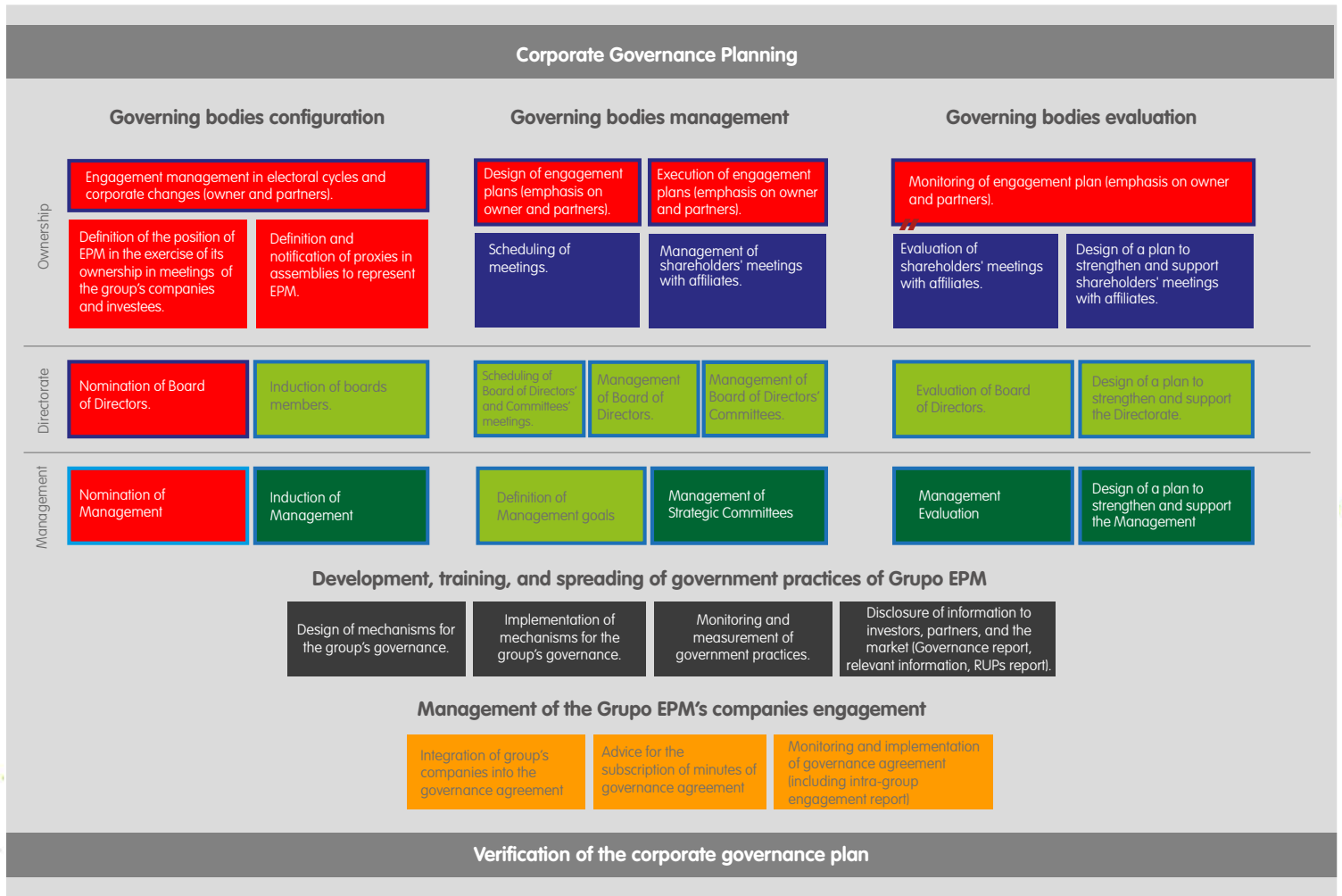
Grupo·epm<sup>®</sup>

## Annex 1- Governing bodies and framework for action of the group's governance model

### Governing bodies



## Framework for action



## Annex 2- Context on the Relations Framework Agreement

The Relations Framework Agreement,<sup>2</sup> signed by EPM and the Municipality of Medellín in 2007, reflects the common goal of these two entities of creating conditions of business management that enable sustainability and creation of value for their stakeholders, but, especially, that make EPM a viable source of revenue for the city of Medellín.



<sup>2</sup> Link to the Relations Framework Agreement:

<https://www.epm.com.co/site/Portals/5/documentos/InformacionRelevante/1.%20Convenio%20marco%20de%20relaciones.pdf>

## Annex 3 – Board of Directors’ profiles

Matrix of profiles of the members of the Board of Directors

| Education and experience / Board’s member                                                                | Federico Gutiérrez Zuluaga | Andrés Bernal Correa | Claudia Jiménez Jaramillo | Javier Genaro Gutiérrez Pemberthy | Manuel Santiago Mejía Correa | Alberto Arroyave Lema | Elena Rico Villegas | Gabriel Ricardo Maya Maya | Carlos Raúl Yepes Jiménez |
|----------------------------------------------------------------------------------------------------------|----------------------------|----------------------|---------------------------|-----------------------------------|------------------------------|-----------------------|---------------------|---------------------------|---------------------------|
| Business management with an emphasis on international business                                           |                            | ✓                    | ✓                         | ✓                                 | ✓                            |                       | ✓                   |                           | ✓                         |
| Financial management                                                                                     |                            | ✓                    | ✓                         | ✓                                 | ✓                            |                       | ✓                   |                           | ✓                         |
| Management of residential public utilities or other EPM’s corporate sectors, including urban development | ✓                          |                      | ✓                         | ✓                                 |                              | ✓                     | ✓                   | ✓                         |                           |
| Ethics, sustainability, and corporate social responsibility                                              | ✓                          | ✓                    |                           | ✓                                 | ✓                            |                       |                     |                           | ✓                         |
| Public management or legal management                                                                    | ✓                          |                      | ✓                         | ✓                                 | ✓                            | ✓                     | ✓                   | ✓                         | ✓                         |

The “profile” concept is understood as the area of knowledge in which someone has training and experience.

To see in detail the résumé of each of the members of the EPM’s Board of Directors.

<https://www.epm.com.co/site/investors/corporate-governance/governance-structure/board-of-directors>

## Annex 4 - Statement by the EPM's Board of Directors on the performance of the CEO

### STATEMENT BY THE EPM'S BOARD OF DIRECTORS ON THE PERFORMANCE OF THE CEO, JORGE LONDOÑO DE LA CUESTA, DURING 2017

In compliance with the corporate governance practices implemented by Grupo EPM, the members of the Board of Directors are responsible for assessing the performance of the CEO, Jorge Londoño De la Cuesta, in the light of the results obtained in 2017 and described in his management report, as well as his managerial style. These two inputs allow us to analyze the results achieved through their actions, which reflect the organizational values and their leadership style.


It is important to note that, except for the president of the Board: the Mayor of Medellín, Federico Gutiérrez Zuluaga, the members have an independent status, which allows us to exercise our functions with total autonomy with respect to the management and the owner of the company.

In 2017, despite some adverse conditions, we highlight the results obtained in the EBITDA and Net Profit indicators, which remain on a growth path with values above the target (104% and 124% respectively), reflecting the most positive results of these indicators in the last three years.

Additionally, it is worth mentioning the results obtained through the "4C+1G Strategy": Closeness, coverage, consolidation, care for the environment, and growth—a strategy that makes evident the mark that its leader wants to leave in the history of Grupo EPM.

Some of the main achievements during the year 2017 are described below:

- The results of the organizational climate assessment show an increase of 3.4 percentage points in the period. This result is a proof of the CEO's leadership, based on warmth and closeness, with a great capacity to establish and build relationships of trust.
- Caring for the environment is paramount for the sustainability of Grupo EPM and the territories where it is present. The companies of the group protect about 62,000 hectares and plantations that contribute to the conservation of biodiversity and to the mitigation and compensation of the impacts generated.
- Regarding power generation, Hidroituango represents the largest hydroelectric generation project in the country, with an 80% progress in its works. This megaproject will contribute 2,400 MW to the national system.
- In water and sanitation, the company achieved a coverage of 96% in water supply and 94% in the sewerage system in Valle de Aburrá. At this point, we highlight initiatives such as the United for Water program, the acquisition of EP Río in Eastern Antioquia, and the restoration of the water supply and sewerage systems of Urabá.
- As for the gas business, the results of the year 2017 have allowed EPM to position itself as the second gas distributor in the country, with a market share of 13%.



As important as the excellent financial and operational results is the performance, object of this report, obtained in leadership matters by Jorge Londoño De La Cuesta, CEO of EPM, who has proven to be an authentic and kind leader appreciated by his employees and respected by people, and who has fostered an ethical and rigorous culture for the administration of the entity's resources. His leadership style is an example to follow inside and outside Grupo EPM because of his human qualities and his ability to generate trust and establish warm and close relationships, inspiring others to act in the same way.

The Board of Directors will continue supporting the CEO and the executive management, in line with the provisions of the Relations Framework Agreement between EPM and the Municipality, to strategically boost EPM's position in the development of the regions and countries where it operates and, in particular, to promote innovation and information technology, as well as the start-up of the Hidroituango project and the Aguas Claras wastewater treatment plant in Bello. Likewise, the board will focus on the implementation of the "Vision 2025" strategy, the electric mobility and air quality projects, and the international operation strengthening plan.

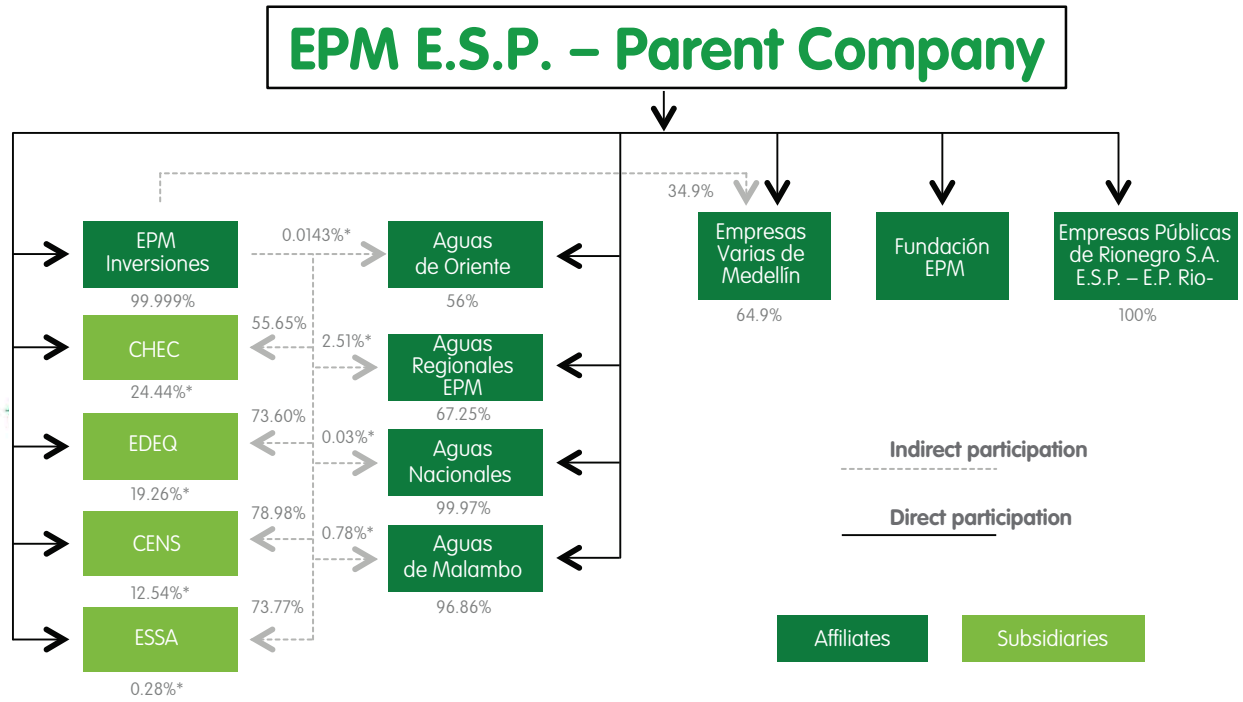
Receive, Mr. Londoño, on behalf of the Board of Directors, our most sincere congratulations and our gratitude for the work you and your team do.

***Presented in the accountability report of Empresas Publicas de Medellín E.S.P. before the community on April 7, 2018.***



## Annex 5 – Grupo EPM’s shareholding structure

### Affiliated and Subsidiary Companies in Colombia

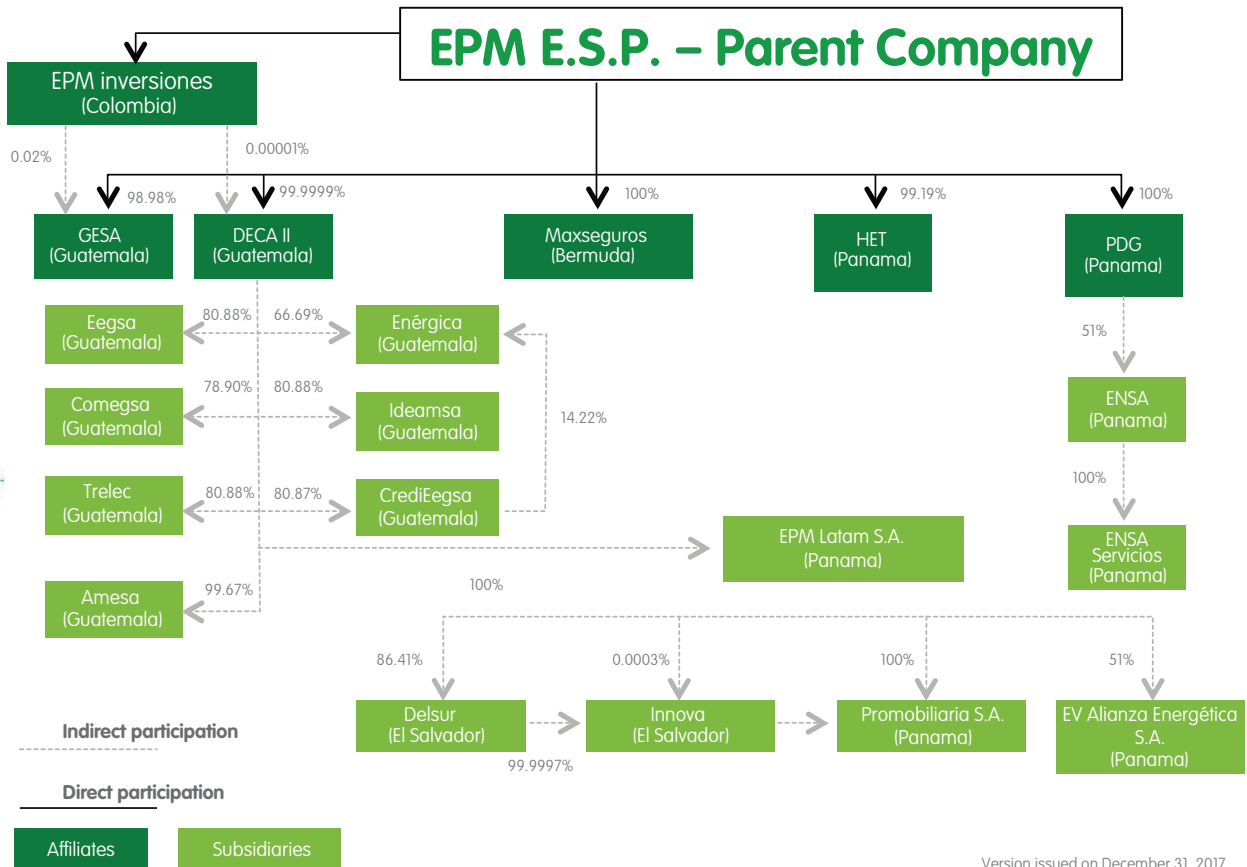


\*Percentage of control

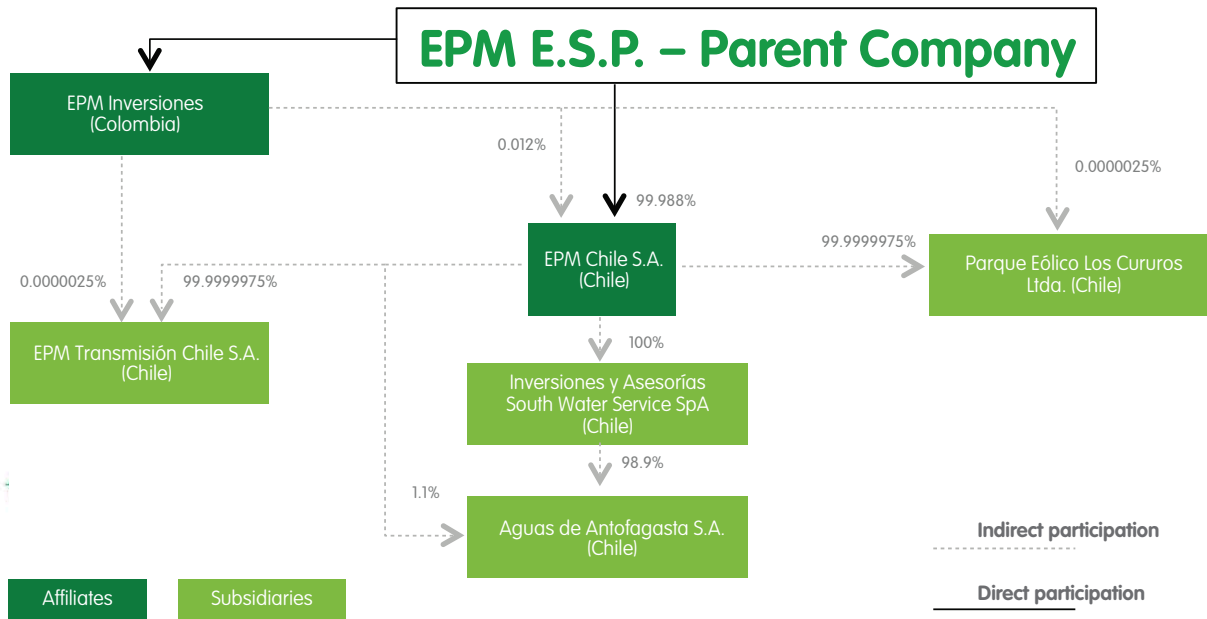
Version issued on December 31, 2017



## Affiliated and Subsidiary Companies in Central America and the Caribbean

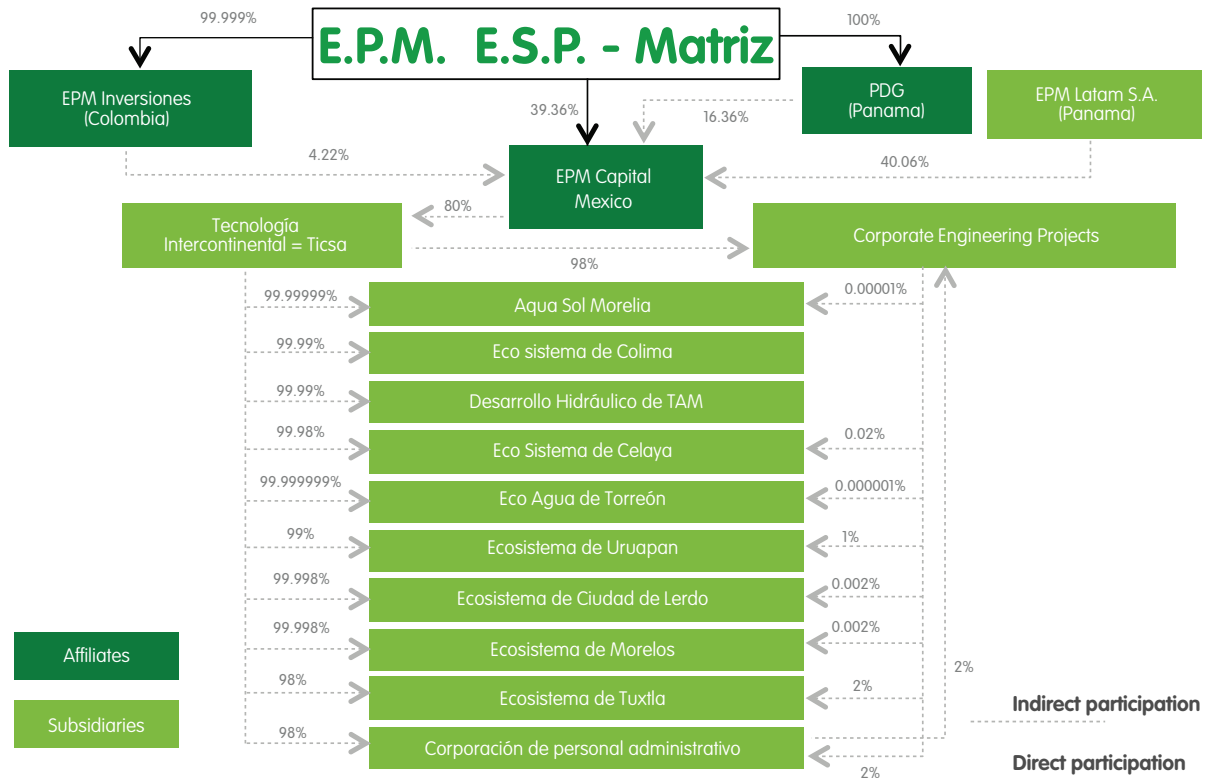


## Affiliated and Subsidiary Companies in Chile



Version issued on December 31, 2017

## Affiliated and Subsidiary Companies in Mexico



Version issued on December 31, 2017

## Annex 6 - Detail of attendance to the Grupo EPM's Boards of Directors

### Water, Sanitation, and Solid Waste Management - Colombia

| Category                             | Name                               | Shareholder represented                        | Aguas de Oriente | Aguas de Malambo | Aguas Regionales | Aguas Nacionales | E.P. Rio | Emvarias |
|--------------------------------------|------------------------------------|------------------------------------------------|------------------|------------------|------------------|------------------|----------|----------|
| <b>Sessions held during the term</b> |                                    |                                                | 6                | 11               | 12               | 19               | 5        | 13       |
| Internal                             | Adriana María Londoño Carvajal     | Infrastructure Projects Manager                |                  |                  |                  | 47%              | 60%      |          |
|                                      | Alejandro José Jaramillo Arango    | VP of Growth                                   |                  |                  |                  |                  | 33%      |          |
|                                      | Ángela Vergara Jaller              | Director of Risks Engineering                  |                  |                  |                  |                  | 0%       |          |
|                                      | Carlos Hernando Pinilla            | Urabá Region Manager                           |                  |                  | 80%              |                  |          |          |
|                                      | Diana María Montoya Tamayo         | Director of Financial Analysis and Planning    |                  |                  |                  |                  |          | 0%       |
|                                      | Edgardo Gerardo Martínez Echeverri | Commercial Director of Water and Sanitation    | 14%              | 56%              | 10%              |                  |          |          |
|                                      | Gabriel Jaime Velásquez Restrepo   | Business Group's Legal Manager                 |                  |                  |                  |                  |          | 85%      |
|                                      | John Alberto Maya Salazar          | EVP of Business Management                     |                  |                  |                  |                  |          | 69%      |
|                                      | Jorge William Ramírez Tirado       | Water Supply Manager                           | 80%              | 73%              | 50%              | 100%             | 100%     |          |
|                                      | Juan Carlos Castro Padilla         | Financial Planning Manager                     |                  |                  |                  | 84%              | 80%      | 85%      |
|                                      | Juan Carlos Echeverri Montes       | Director of Project Planning and Engineering   |                  |                  |                  |                  | 0%       |          |
|                                      | León Arturo Yepes Enriquez         | Wastewater Manager                             |                  |                  |                  |                  | 100%     |          |
|                                      | Luis Fernando López Marín          | Director of Regional Water Systems             |                  | 30%              |                  |                  | 0%       |          |
|                                      | Luisa María Pérez Fernández        | Director of Water Regulation                   | 60%              |                  |                  |                  |          | 73%      |
|                                      | Marta Lucía Londoño Toro           | Director of Water and Sanitation Planning      | 43%              | 0%               | 40%              | 16%              |          |          |
|                                      | Santiago Díaz Gutiérrez            | Commercial Offers Manager                      | 86%              |                  | 83%              |                  |          |          |
|                                      | Santiago Ochoa Posada              | VP of Water and Sanitation                     |                  | 90%              | 50%              |                  |          | 77%      |
|                                      | Silvio Triana Castillo             | Commercial Operation Manager                   |                  | 86%              |                  |                  |          |          |
|                                      | Víctor Manuel Herrera Muñoz        | Head of the W&S Infrastructure Management Unit |                  | 0%               | 0%               |                  | 0%       |          |
|                                      | Víctor Rodrigo Vélez Marulanda     | W&S Growth Manager                             |                  |                  |                  |                  | 80%      |          |
| Wilson Chinchilla Herrera            | EVP of Projects and Engineering    |                                                |                  |                  | 74%              |                  |          |          |

| Category                             | Name                               | Shareholder represented     | Aguas de Oriente | Aguas de Malambo | Aguas Regionales | Aguas Nacionales | E.P. Rio | Emvarias |
|--------------------------------------|------------------------------------|-----------------------------|------------------|------------------|------------------|------------------|----------|----------|
| <b>Sessions held during the term</b> |                                    |                             | 6                | 11               | 12               | 19               | 5        | 13       |
| External                             | Juan Camilo Restrepo Gómez         | EPM's Representative        |                  |                  | 80%              |                  |          |          |
| Partner                              | Alcalde del Municipio de El Retiro | Mayor of El Retiro          | 71%              |                  |                  |                  |          |          |
|                                      | Alcalde del Municipio de Malambo   | Partner's Representative    |                  | 36%              |                  |                  |          |          |
|                                      | James Gallego Alazate              | Department of Antioquia     |                  |                  | 50%              |                  |          |          |
|                                      | Luz Adriana Jaramillo Rendón       | Department of Antioquia     |                  |                  | 0%               |                  |          |          |
|                                      | Representative of El Retiro        | Representative of El Retiro | 71%              |                  |                  |                  |          |          |
|                                      | Representative of El Retiro        | Representative of El Retiro | 71%              |                  |                  |                  |          |          |
|                                      | Representative of El Retiro        | Representative of El Retiro | 43%              |                  |                  |                  |          |          |

| <b>Legend</b> |                                     |
|---------------|-------------------------------------|
|               | Representation as main member       |
|               | Representation as substitute member |
|               | Representation as permanent guest   |

## Water and Sanitation - Latin America

| Category                             | Name                           | Shareholder represented                         | Ticsa | Adasa |
|--------------------------------------|--------------------------------|-------------------------------------------------|-------|-------|
| <b>Sessions held during the term</b> |                                |                                                 | 9     | 12    |
| Internal                             | Eduardo Esteban Cadavid        | CEO of EPM Chile                                |       | 100%  |
|                                      | Gabriel Jaime Betancourt Mesa  | EVP of Strategy and Growth                      | 100%  | 50%   |
|                                      | John Alberto Maya Salazar      | EVP of Business Management                      | 78%   | 83%   |
|                                      | Jorge Andrés Tabares Ángel (I) | EVP of Finance, Risk Management, and Investment |       | 100%  |
|                                      | Santiago Ochoa Posada          | VP of Water and Sanitation                      | 78%   | 73%   |
|                                      | Wilson Chinchilla Herrera      | EVP of Projects and Engineering                 | 56%   |       |
| External                             | Álvaro García Hurtado          | EPM's Representative                            |       | 100%  |
|                                      | Gilberto Escobedo              | EPM's Representative                            | 89%   |       |
|                                      | Luis Guillermo Suárez Navarro  | EPM's Representative                            | 100%  | 100%  |
| Partner                              | José Alfredo Primelles Gingele | Partner                                         | 86%   |       |

| Legend |                                     |
|--------|-------------------------------------|
|        | Representation as main member       |
|        | Representation as substitute member |
|        | Representation as permanent guest   |

## Energy - Colombia

| Category                             | Name                           | Shareholder represented                        | EDEQ | CHEC | ESSA | CENS |
|--------------------------------------|--------------------------------|------------------------------------------------|------|------|------|------|
| <b>Sessions held during the term</b> |                                |                                                | 11   | 13   | 9    | 11   |
| Internal                             | Alberto Mejía Reyes            | Power Generation WEM Manager                   |      | 80%  |      |      |
|                                      | Blanca Liliana Ruiz Arroyave   | Director of Energy Regulation                  | 29%  | 20%  |      |      |
|                                      | Diego Humberto Montoya Mesa    | Director of T&D Planning                       | 100% | 60%  |      |      |
|                                      | Inês Helena Vélez Pérez        | VP of T&D of EPM                               |      |      | 89%  | 91%  |
|                                      | Jaime Alberto Villa Valencia   | Director of the STR and Connections - Colombia |      |      |      | 82%  |
|                                      | Jhon Jairo Granada Giraldo     | CEO of CHEC                                    |      |      |      | 78%  |
|                                      | John Jairo Celis Restrepo      | Transmission Systems Project Manager           |      |      | 67%  |      |
|                                      | Juan Carlos Duque Ossa         | Energy T&D Manager - Antioquia Region          | 91%  | 100% | 78%  | 91%  |
|                                      | Juan Felipe Valencia Gaviria   | Commercial VP                                  | 100% | 100% | 75%  | 100% |
|                                      | Juan Rafael López Foronda      | Energy T&D Commercial Manager                  | 64%  |      |      |      |
| External                             | Gilberto Saffón Arango         | EPM's Representative                           |      | 91%  |      |      |
| Partner                              | Mayor of Manizales             | Mayor of Manizales                             |      | 20%  |      |      |
|                                      | Governor's Delegate            | Governor of Santander's Delegate               |      |      | 100% |      |
|                                      | Governor of Caldas             | Governor of Caldas                             |      | 77%  |      | *    |
|                                      | Governor of Norte de Santander | Governor of Norte de Santander                 |      |      |      | 9%   |
|                                      | Governor of Santander          | Governor of Santander                          |      |      | 0%   |      |

| Legend |                                     |
|--------|-------------------------------------|
|        | Representation as main member       |
|        | Representation as substitute member |
|        | Representation as permanent guest   |

## Energy - Latin America

| Category                             | Name                           | Shareholder represented               | ENSA | Delsur | Eegsa Trelec | Comegsa | Credieegsa | DECA II | EPM Transmission Chile | EPM Chile and Cururos | HET  |
|--------------------------------------|--------------------------------|---------------------------------------|------|--------|--------------|---------|------------|---------|------------------------|-----------------------|------|
| <b>Sessions held during the term</b> |                                |                                       | 6    | 10     | 17           | 9       | 8          | 11      | 4                      | 7                     | 6    |
| Internal                             | Alberto Meija Reyes            | Power Generation WEM Manager          |      |        |              |         |            |         |                        | 0%                    | 50%  |
|                                      | Carlos Alberto Solano Bonnett  | VP of Energy Generation               |      |        |              |         |            |         | 100%                   | 100%                  | 100% |
|                                      | Carlos Mario Tobón Osorio      | Business and Investment Manager       |      | 83%    | 85%          | 83%     | 80%        | 88%     |                        | 100%                  |      |
|                                      | Diego Humberto Montoya Mesa    | Director of T&D Planning              |      | 90%    | 8%           | 17%     | 20%        |         | 75%                    |                       |      |
|                                      | Esteban Barrientos Moreno      | CEO of ENSA                           |      |        |              |         |            |         |                        |                       | 100% |
|                                      | Gustavo Alvarado               | CEO of DECA II, Grupo EPM             | 80%  |        |              |         |            |         |                        |                       |      |
|                                      | Hugo René Villalobos Herrarte  | Eegsa's Legal Manager                 |      |        |              | 100%    | 100%       | 100%    |                        |                       |      |
|                                      | Inés Helena Vélez Pérez        | VP of T&D of EPM                      | 100% | 90%    | 100%         | 100%    | 100%       | 100%    |                        |                       |      |
|                                      | John Alberto Maya Salazar      | EVP of Business Management            |      |        |              |         |            |         |                        | 100%                  |      |
|                                      | Jorge Alonso Duarte            | CEO of Eegsa                          |      | 40%    |              |         |            |         |                        |                       |      |
|                                      | Jorge Andrés Tabares Ángel     | EVP of Corporate Finance              |      |        |              |         |            |         | 50%                    |                       |      |
|                                      | José Enrique Salazar Velásquez | Director of Markets                   |      | 30%    | 88%          | 78%     | 75%        | 82%     |                        |                       |      |
|                                      | Juan Carlos Duque Ossa         | Energy T&D Manager - Antioquia Region |      |        |              | 0%      | 0%         | 0%      |                        |                       |      |
|                                      | Juan Felipe Valencia Gaviria   | Commercial VP                         |      |        |              | 0%      | 0%         | 0%      |                        |                       |      |
|                                      | Juan Jacobo Rodríguez Gaviria  | Professional C, Project Management    |      |        |              | 8%      | 17%        | 20%     |                        |                       |      |
| Juan Rafael López Foronda            | Energy T&D Commercial Manager  |                                       |      |        | 0%           | 0%      | 0%         |         |                        |                       |      |

| Category                             | Name                      | Shareholder represented                 | ENSA | Delsur | Eegsa Trelec | Comegsa | Credieegsa | DECA II | EPM Transmission Chile | EPM Chile and Cururos | HET |
|--------------------------------------|---------------------------|-----------------------------------------|------|--------|--------------|---------|------------|---------|------------------------|-----------------------|-----|
| <b>Sessions held during the term</b> |                           |                                         | 6    | 10     | 17           | 9       | 8          | 11      | 4                      | 7                     | 6   |
| Internal                             | Luis Javier Vélez Duque   | VP of Power Generation Projects         |      |        |              |         |            |         |                        |                       | 50% |
|                                      | Luz Marina Escobar Arango | Director of Power Generation Operations |      |        |              |         |            |         |                        | 0%                    | 50% |
|                                      | Santiago Villegas Yepes   | Director of Power Generation Planning   |      |        |              |         |            |         |                        | 0%                    |     |
| External                             | Luis Enrique Córdova      | EPM's Representative                    |      | 70%    |              |         |            |         |                        |                       |     |
|                                      | Ramiro Valencia Cossio    | EPM's Representative                    |      |        | 100%         | 100%    | 100%       | 100%    |                        |                       |     |
|                                      | Raúl Edmundo Archila S    | EPM's Representative                    |      |        | 82%          |         |            |         |                        |                       |     |
|                                      | Tatyana Aristizábal       | EPM's Representative                    | 100% |        |              |         |            |         |                        |                       |     |
| Partner                              | José Agustín Moscoso      | Panama Government's Representative      | 100% |        |              |         |            |         |                        |                       |     |
|                                      | José Roberto Quijano      | Panama Government's Representative      | 67%  |        |              |         |            |         |                        |                       | *   |

| Legend |                                     |
|--------|-------------------------------------|
|        | Representation as main member       |
|        | Representation as substitute member |
|        | Representation as permanent guest   |





**Social and  
environmental  
management**



**Grupo·epm®**





# General Information



Grupo·epm®





**Report  
profile**



**Grupo·epm<sup>®</sup>**



## Report profile

EPM and Grupo EPM publish every year the information on its work in terms of sustainability.

**GRI Disclosure 102-52.**

This report provides information from January 1 to December 31, 2017. **GRI Disclosure 102-50.**

The report was published on the website in May 2017 **GRI Disclosure 102-51.**

This report has been prepared in accordance with the GRI Standards: Comprehensive option.

**GRI Disclosure 102-54.**

This is the twelfth EPM Sustainability Report prepared in accordance with the GRI methodology. See Global Reporting Initiative Index – GRI

This sustainability report corresponds to EPM and Grupo EPM. Their financial statements are included in the financial management. Social and environmental management contains information of the following companies of Grupo EPM: **Disclosure 102-45**

| Country                                                        | Company                                                     | Business                                                                              |
|----------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Colombia                                                       | Empresas Públicas de Medellín E.S.P. - EPM                  | Water<br>Sanitation<br>Power generation<br>Power transmission and distribution<br>Gas |
|                                                                | Aguas Regionales EPM S.A. E.S.P.                            | Water                                                                                 |
|                                                                | Aguas Nacionales EPM                                        |                                                                                       |
|                                                                | Empresa de Aguas del Oriente Antioqueño S.A. E.S.P.         |                                                                                       |
|                                                                | Aguas de Malambo S.A. E.S.P.                                |                                                                                       |
|                                                                | Empresas Varias de Medellín S.A. E.S.P. - Emvarias          | Sanitation                                                                            |
|                                                                | Central Hidroeléctrica de Caldas S.A. E.S.P. - CHEC         | Power generation                                                                      |
|                                                                | Electrificadora de Santander S.A. E.S.P. - ESSA             | Power transmission and distribution                                                   |
|                                                                | Empresa de Energía del Quindío S.A. E.S.P. - EDEQ           | Power transmission and distribution                                                   |
| Centrales Eléctricas del Norte de Santander S.A. E.S.P. - CENS |                                                             |                                                                                       |
| El Salvador                                                    | Distribuidora de Electricidad del Sur S.A. de C.V. - Delsur |                                                                                       |
| Guatemala                                                      | Empresa Eléctrica de Guatemala S.A. - Eegsa                 |                                                                                       |
| Chile                                                          | Aguas de Antofagasta S.A. - Adasa                           | Water                                                                                 |
|                                                                | EPM Chile S.A.                                              | Power generation                                                                      |
| Panama                                                         | Hidroecológica del Teribe S.A. - HET                        | Power transmission and distribution                                                   |
|                                                                | Elektra Noreste S.A. - ENSA                                 |                                                                                       |
| Mexico                                                         | Tecnología Intercontinental S.A.P.I. de C.V.-Ticsa          | Sanitation                                                                            |

This report is aligned with the Sustainable Development Goals (SDG), the Global Compact principles, the ISO 26000 standard, the voluntary assessment in the Dow Jones Sustainability Index for the multi-utilities and water industry, and the framework of the International Integrated Reporting Council (IIRC).

### Evolution of the EPM Sustainability Report

| Item                                       | 2006                                                    | 2007                      | 2008                         | 2009    | 2010   | 2011   | 2012                                                                                                                  | 2013                                                                                                                                                                                                                                                                     | 2014                                                                                                                                                                                                                                                                                                                              | 2015                                                                                                      | 2016                           | 2017 |
|--------------------------------------------|---------------------------------------------------------|---------------------------|------------------------------|---------|--------|--------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------|------|
| <b>Scope</b>                               | EPM                                                     |                           |                              |         |        |        |                                                                                                                       |                                                                                                                                                                                                                                                                          | EPM and affiliates in Colombia                                                                                                                                                                                                                                                                                                    | EPM and Grupo EPM                                                                                         |                                |      |
| <b>Content</b>                             | Sustainability Report (social and environmental topics) |                           |                              |         |        |        | <ul style="list-style-type: none"> <li>• Financial management</li> <li>• Social and environment management</li> </ul> | <ul style="list-style-type: none"> <li>• Management of the CEO</li> <li>• Management of the board of directors</li> <li>• Corporate governance</li> <li>• Financial management</li> <li>• Social and environment management</li> <li>• Management in Medellín</li> </ul> | <ul style="list-style-type: none"> <li>• Management of the CEO</li> <li>• Corporate governance</li> <li>• Financial management</li> <li>• Social and environment management</li> </ul> Cross-cutting reports: <ul style="list-style-type: none"> <li>• Review by the Directorate</li> <li>• Management self-assessment</li> </ul> |                                                                                                           |                                |      |
| <b>GRI methodology</b>                     | 3.0 C                                                   |                           | 3.0 B                        | 3.0 B+  | 3.1 B+ | 3.1 A+ | Comprehensive G4                                                                                                      |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                   |                                                                                                           | GRI Standards – Comprehensive. |      |
| <b>Assurance</b>                           | Internal assurance                                      |                           |                              | Icontec |        |        | Deloitte                                                                                                              |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                   |                                                                                                           |                                |      |
| <b>Cop Global Compact</b>                  | Not Applicable                                          |                           |                              |         | Basic  |        |                                                                                                                       | Advanced                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                   |                                                                                                           |                                |      |
| <b>Systematization</b>                     | Not Applicable                                          |                           |                              |         |        |        | Idsos                                                                                                                 |                                                                                                                                                                                                                                                                          | Idsos Standard formats                                                                                                                                                                                                                                                                                                            |                                                                                                           |                                |      |
|                                            |                                                         |                           |                              |         |        |        | Sharepoint                                                                                                            | Web platform                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                   |                                                                                                           |                                |      |
| <b>Publication</b>                         | Printed (FSC Standard)                                  | Printed in recycled paper |                              |         |        |        | Multimedia                                                                                                            |                                                                                                                                                                                                                                                                          | Web                                                                                                                                                                                                                                                                                                                               |                                                                                                           |                                |      |
| <b>Alignment with external initiatives</b> | Not Applicable                                          |                           | GRI<br>Global Compact<br>MDG |         |        |        | GRI<br>Global Compact<br>MDG<br>DJSI<br>ISO 26000                                                                     |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                   | GRI<br>Global Compact<br>CEO Water Mandate<br>SDG<br>DJSI<br>ISO 26000<br>NTCGP 1000<br>Integrated Report |                                |      |

The Sustainability Report includes the social and environmental management, the corporate governance management, the EPM's and Grupo EPM's financial management, and the CEO's management.

This information is annually reported to the stakeholders, the society in general, and other specific audiences through physical and virtual methods.

The content of the report was reviewed and approved by directors of the company, and externally assured by Deloitte & Touche, the firm that performs the external audit of EPM and the tax audit of the Grupo EPM's companies.

**Disclosure 102-56.** For more information, see External Assurance of the Report.

The preparation of the report is coordinated by the Sustainable Development Management, which is part of the Executive Vice Presidency of Strategy and Growth of EPM.

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## GRI Standards and EPM indicators

**102-3** Location of headquarters.

**102-45** Entities included in the consolidated financial statements.

**102-50** Reporting period.

**102-51** Date of most recent report.

**102-52** Reporting cycle.

**102-53** Contact point for questions regarding the report

**102-54** Claims of reporting in accordance with the GRI Standards.

**102-56** External assurance.



**Material aspects  
and boundaries**

**Grupo·epm<sup>®</sup>**



## Material aspects and boundaries

The Sustainable Development Agenda aims at not leaving anyone behind. The evaluation of its 17 objectives shows that the pace of progress in many areas is slower than necessary to achieve the goals proposed for 2030.

The second report on the Sustainable Development Goals, presented in 2017 by the Secretary General of the United Nations, António Manuel de Oliveira Guterres, indicates that a more categorical progress is needed regarding sustainable energy, that more than 2 billion people live in countries under stress conditions due to water scarcity, and that sustainable development also depends significantly on defending human rights and ensuring peace and security.

Materiality is the process that defines priority material or management topics for the sustainability of companies and society. A new line of business leadership emerges when business objectives favor sustainable human development.

For Grupo EPM, materiality is based on the GRI Standards and on the stakeholder engagement model implemented in EPM since 2010<sup>1</sup>, which is aligned with the principles of thoroughness, relevance, and response capacity of the AA1000 Standard.

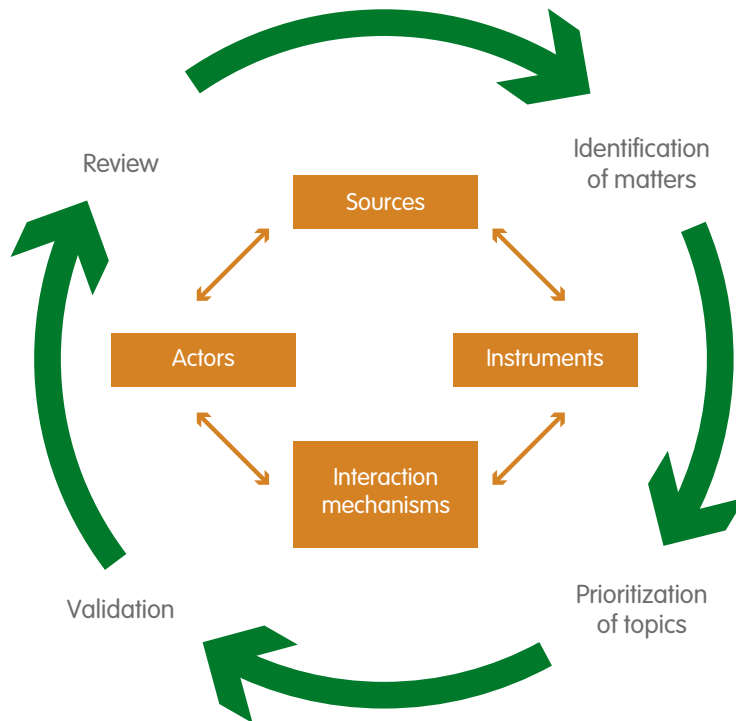
Taking into account the twelve material topics of Grupo EPM, prioritized for each of the affiliated companies and aligned with the sustainable development goals and the actions of the business plans, in 2017, as part of the updating of the strategic thinking on sustainability with stakeholders, the group's emphases were identified. Emphases are those aspects that guide the management of the material topics, according to the specific conditions in each territory.

### Disclosure 102-46

<sup>1</sup> The model is methodologically based on the Practitioner's Handbook on Stakeholder Engagement. AccountAbility Institute, UNEP, and Stakeholders Research Associates.



## Procedure for identifying the materiality of Grupo EPM



In 2017, the identification of emphases began, that is, of the priority aspects that give focus to the specific management of the material topic in each territory.

### Identification of matters

In the materiality procedure, matters are a large list of notable aspects related to sustainability. Material topics are obtained from the prioritization of the matters in that list.

In order to prepare the list of matters, the company resorted to the voices of the stakeholder groups by means of direct dialogs in some cases, and through studies on expectations, needs, satisfaction, or reputation, in other cases. Transactional interaction mechanisms, such as the ones for complaints and claims, were also used. The degree of the stakeholders' direct participation is heterogeneous because it corresponds to the engagement dynamic of each one of the group's affiliated companies that participated in the exercise, which are in different stages of evolution.

The voices of the stakeholder groups blended with the knowledge of the Grupo EPM people on their territories, and with their experiences in the day-to-day interaction through the diverse processes of the companies.

The matters identified were contrasted with strategic planning elements of Grupo EPM, and with relevant global sustainability matters, in order to incorporate them if they were not identified in prior steps, provided that they are pertinent to the group's environment and strategy. For this purpose, the following sources were considered: the thematic areas and the sustainable development goals of the 2030 Global Development Agenda, the 2010–2016 UNDP Human Development Reports, the international social responsibility standard ISO 26000, the Dow Jones Sustainability Index, sustainability reports of outstanding companies of the industry, events on topics related to climate and human rights, and the GRI document that contains sustainability topics by sector.

The resulting list of matters and their corresponding actors was subjected to subsequent processes of refining, revision, discussion, and analysis, as well as to a shortlisting, based on potential economic, environmental, and social impacts for Grupo EPM and the society, at the discretion of people who have vast knowledge on the affiliated companies and the corporate core of Grupo EPM. This is how the thoroughness principle of the engagement model was applied and the list of matters to prioritize was obtained.

## Prioritization of matters

The prioritization of the list of matters was carried out jointly with specialists of the organization, using the prioritization criteria for material topics, an instrument designed by the company for estimating the social, economic, and environmental value potentially created or destroyed by each matter for Grupo EPM and its stakeholders. This way, the principle of relevance was applied.

The instrument favors the convergence of criteria. With the purpose of minimizing the possibility that matters with a high importance in one of the three assessed categories present a low total rating despite having deep repercussions for sustainability, an empirical contrast of the results is carried out by people who have the capacity to visualize the impact of the priority sustainability topics on Grupo EPM, its stakeholders, and the society in general.

For analyzing matters and topics, qualitative techniques were used and translated into numerical expressions that make it easier to understand, compare, and visualize certain features or trends, without forgetting that reality exceeds the limitations of the instruments trying to model it.

### Prioritization criteria for material topics

| <b>Relevance of the topics for Grupo EPM:</b> impact or value of the topic for Grupo EPM.                                                                                               | <b>Relevance of the topics for the stakeholder groups:</b> impact and value of the topic for the Grupo EPM's stakeholders.                                                                                        | <b>Management potential of the topic:</b> possibilities or opportunities that the topic offers for its development.                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| It considers the strategic planning; the social, economic, and environmental aspects underlying Grupo EPM's policies; the capabilities of the companies; and the diverse time horizons. | It considers the expectations and needs of the stakeholders; the extent, scale, and urgency of the economic, social, or environmental impact; the closeness of the affected party; and the diverse time horizons. | It considers the status of the topic in the context, its development in the organization, and the mobilization of the stakeholders around it. |

The management potential analysis accounts for the application of the "response capacity" principle from the engagement model (the other two principles are "thoroughness" and "relevance").

In 2017, the identification of emphases on material topics included the perspective of some stakeholder groups, such as customers and users, community, and suppliers and contractors, through dialogue for the companies in Colombia and through secondary information for the international affiliates included in the exercise. These inquiries produced information with which the material topics and their challenges are adjusted as of 2018.

## Validation

The Sustainable Development Management refines the final result with expert criteria. EPM's Executive Vice Presidency of Strategy and Growth is responsible for ensuring that the twelve material topics identified are included in the Sustainability Report. The material topics are the axes upon which the departments, depending on their functions, manage the engagement with each stakeholder group, both during businesses and other transversal processes.

The materiality results are communicated to the Strategic Corporate Planning and the Business Planning Departments, in order to ensure articulation with the strategic planning and feed the context analysis, the comprehensive risk management, and the business plans.

The validation corresponding to the materiality updating will be carried out in 2018 in the Core Committee of Grupo EPM.

## Review

The scope and the refining of materiality will keep evolving to reflect the expansion of the field of action towards Grupo EPM, which is on its way to stabilize a recent corporate transformation with its impact on the functions, the responsible actors, and the organizational structure.

The position of the topics in the graph depends on their importance for both Grupo EPM and the stakeholders, based on the prioritization criteria for the material topics.

### **Disclosure 102-47**

Due to their relevance, the evolution of topics such as Outsourcing, Social Control, and Decent Work will be addressed in the 2018 Sustainability Report, even if they are not classified as material topics.

The Sustainable Development Goals outline the thematic route for the Global Development Agenda, which crystallizes the company-society relation, with which the materiality of Grupo EPM is articulated, as it can be observed in Sustainable Development Goals - SDG.

## Risks associated with material topics

The organization identified and classified the main risks associated with the twelve material issues, with a bidirectional approach, that is, identified the main causes and consequences of internal and external nature and the opportunities to manage them.

The external causes have a strong influence of the environment. For this reason, their management requires generating mechanisms of joint action with other public and private actors that affect sustainability.

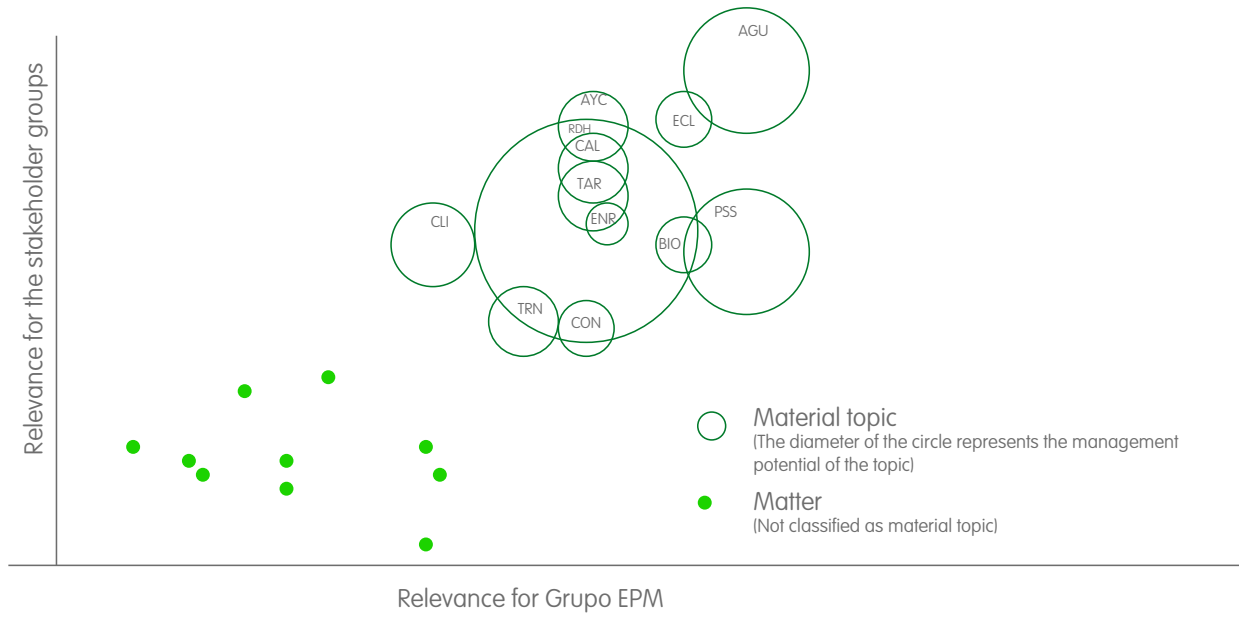
The consequences were assessed in relation to the three objectives of the sustainability purpose, that is, remain through time, create value for the stakeholders, and reconcile the environmental, social, and economic dimensions.













An analysis of the relationship between the risks of the material topics and the risks of Grupo EPM made it possible to establish the boundaries, that is, the extent to which the causes and consequences of the risks of the material topics are contained in the risks of Grupo EPM.

The risks of the group can be seen in Comprehensive risk management (Our Group Report).

Additionally, existing initiatives that contribute to the management of the internal and external causes of risks were identified, and new controls were defined in order to be implemented in the different plans of the organization and other actors.

## Material topics



| Material topics                                                                                                                               | The topic is material because it has an impact on...                                                                    | Related risk                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>AGU</b> Water care                                       | The survival and the inputs for productive processes.                                                                   | R: water resource unavailability.<br>R: water resource deoptimization in the development of productive activities and services.                                           |
|  <b>AYC</b> Access to and purchasability of public utilities | The universalization of public utilities.                                                                               | R: lack of solutions for access to public utilities.<br>R: insufficient offers to meet the specific needs of the population regarding purchasability of public utilities. |
|  <b>BIO</b> Biodiversity                                     | The functional basis for the ecosystem services necessary for developing any human activity.                            | R: intervention or use of natural resources that affect biodiversity and its associated ecosystem services.                                                               |
|  <b>CAL</b> Quality and safety of products and services      | Competitiveness and quality of life.                                                                                    | R: inadequate provision of public utilities.                                                                                                                              |
|  <b>CLI</b> Quality of the working environment               | The construction of trust, the coherence and the productivity.                                                          | R: perception of incoherence between the behavior of leaders and workers and the declared values and the strategic planning of Grupo EPM.                                 |
|  <b>CON</b> Responsible procurement for local development   | Sustainability and competitiveness through the development of capabilities applied to the local business fabric.        | R: requirements in the contracting process that do not allow small contractors and local suppliers to participate.                                                        |
|  <b>ECL</b> Climate strategy                               | Water shortage; floods and droughts; results of the productive activities.                                              | R: impact of natural events associated with climate phenomena on the environment, the operation, and the services provided by Grupo EPM.                                  |
|  <b>ENR</b> Diversification of renewable energies          | The access to sustainable energy sources and the risk of dependence on the water resource.                              | R: insufficient development of renewable, efficient, and clean energies alternative to the water power.                                                                   |
|  <b>PSS</b> Unserved population                            | A lack of basic public utilities in a very vulnerable area with risks of accidents in soils and conflicts among people. | R: lack of public utilities for the population settled outside the perimeters of the LUPs or in high risk areas.                                                          |
|  <b>RDH</b> Respect and promotion of Human Rights          | The feasibility of activities and the dignity of people.                                                                | R: lack of reliable, pertinent, timely, and clear information for the decision making of stakeholders and the society in general.                                         |
|  <b>TAR</b> Fees and prices                                | The financial sustainability, the competitiveness, and the ability to pay.                                              | R: perception of imbalance between the fees and prices of the services, the customers' ability to pay, and the profits of the company.                                    |
|  <b>TRN</b> Transparency and disclosure of information     | The anti-corruption management, extra costs, and greater access to opportunities.                                       | R: lack of reliable, pertinent, timely, and clear information for the decision making of stakeholders and the society in general.                                         |

| Company                         | Access and<br>purchasability | Biodiversity | Quality of the<br>working environment | Quality and safety of<br>products and services | Responsible<br>procurement for local<br>development | Water care |
|---------------------------------|------------------------------|--------------|---------------------------------------|------------------------------------------------|-----------------------------------------------------|------------|
| EPM                             | ✓                            | ✓            | ✓                                     | ✓                                              | ✓                                                   | ✓          |
| CHEC                            | ✓                            | ✓            | ✓                                     | ✓                                              | ✓                                                   | ✓          |
| EDEQ                            | ✓                            | ✓            | ✓                                     | ✓                                              | ✓                                                   | ✓          |
| ESSA                            | ✓                            | ✓            | ✓                                     | ✓                                              | ✓                                                   | ✓          |
| CENS                            | ✓                            | ✓            | ✓                                     | ✓                                              | ✓                                                   | ✓          |
| Aguas de Oriente                | ✓                            |              | ✓                                     | ✓                                              |                                                     | ✓          |
| Aguas Regionales -<br>Occidente | ✓                            |              | ✓                                     | ✓                                              |                                                     | ✓          |
| Aguas Regionales - Urabá        | ✓                            |              | ✓                                     | ✓                                              | ✓                                                   | ✓          |
| Aguas Nacionales                |                              | ✓            | ✓                                     |                                                | ✓                                                   | ✓          |
| Aguas de Malambo                | ✓                            |              | ✓                                     | ✓                                              |                                                     | ✓          |
| Empresas Públicas de<br>Oriente | ✓                            |              | ✓                                     | ✓                                              | ✓                                                   | ✓          |
| Emvarias                        | ✓                            | ✓            | ✓                                     | ✓                                              | ✓                                                   | ✓          |
| Eegsa                           | ✓                            | ✓            | ✓                                     | ✓                                              | ✓                                                   |            |
| ENSA                            | ✓                            |              |                                       |                                                | ✓                                                   |            |
| Delsur                          |                              |              | ✓                                     |                                                | ✓                                                   |            |
| Aguas de Antofagasta            | ✓                            | ✓            |                                       | ✓                                              |                                                     | ✓          |
| Ticsa                           |                              |              |                                       | ✓                                              |                                                     | ✓          |
| EPM Chile                       |                              |              |                                       |                                                |                                                     |            |

| Company                      | Diversification of renewable energies | Climate strategy | Unserviced population | Respect and promotion of Human Rights | Fees and prices | Transparency and information for stakeholders |
|------------------------------|---------------------------------------|------------------|-----------------------|---------------------------------------|-----------------|-----------------------------------------------|
| EPM                          | ✓                                     | ✓                | ✓                     | ✓                                     | ✓               | ✓                                             |
| CHEC                         | ✓                                     | ✓                |                       | ✓                                     | ✓               | ✓                                             |
| EDEQ                         |                                       | ✓                |                       | ✓                                     | ✓               | ✓                                             |
| ESSA                         |                                       |                  | ✓                     | ✓                                     | ✓               | ✓                                             |
| CENS                         | ✓                                     | ✓                | ✓                     | ✓                                     | ✓               | ✓                                             |
| Aguas de Oriente             |                                       | ✓                |                       | ✓                                     | ✓               | ✓                                             |
| Aguas Regionales - Occidente |                                       |                  |                       | ✓                                     | ✓               | ✓                                             |
| Aguas Regionales - Urabá     |                                       |                  |                       |                                       | ✓               | ✓                                             |
| Aguas Nacionales             |                                       | ✓                |                       | ✓                                     |                 | ✓                                             |
| Aguas de Malambo             |                                       |                  |                       |                                       | ✓               | ✓                                             |
| Empresas Públicas de Oriente |                                       |                  |                       |                                       | ✓               | ✓                                             |
| Emvarias                     |                                       | ✓                |                       | ✓                                     | ✓               | ✓                                             |
| Eegsa                        | ✓                                     | ✓                |                       | ✓                                     | ✓               | ✓                                             |
| ENSA                         | ✓                                     |                  |                       | ✓                                     | ✓               | ✓                                             |
| Delsur                       |                                       |                  |                       | ✓                                     | ✓               | ✓                                             |
| Aguas de Antofagasta         |                                       | ✓                |                       | ✓                                     | ✓               | ✓                                             |
| Ticsa                        |                                       |                  |                       |                                       |                 | ✓                                             |
| EPM Chile                    | ✓                                     |                  |                       |                                       | ✓               | ✓                                             |

## Scope of the sustainability report

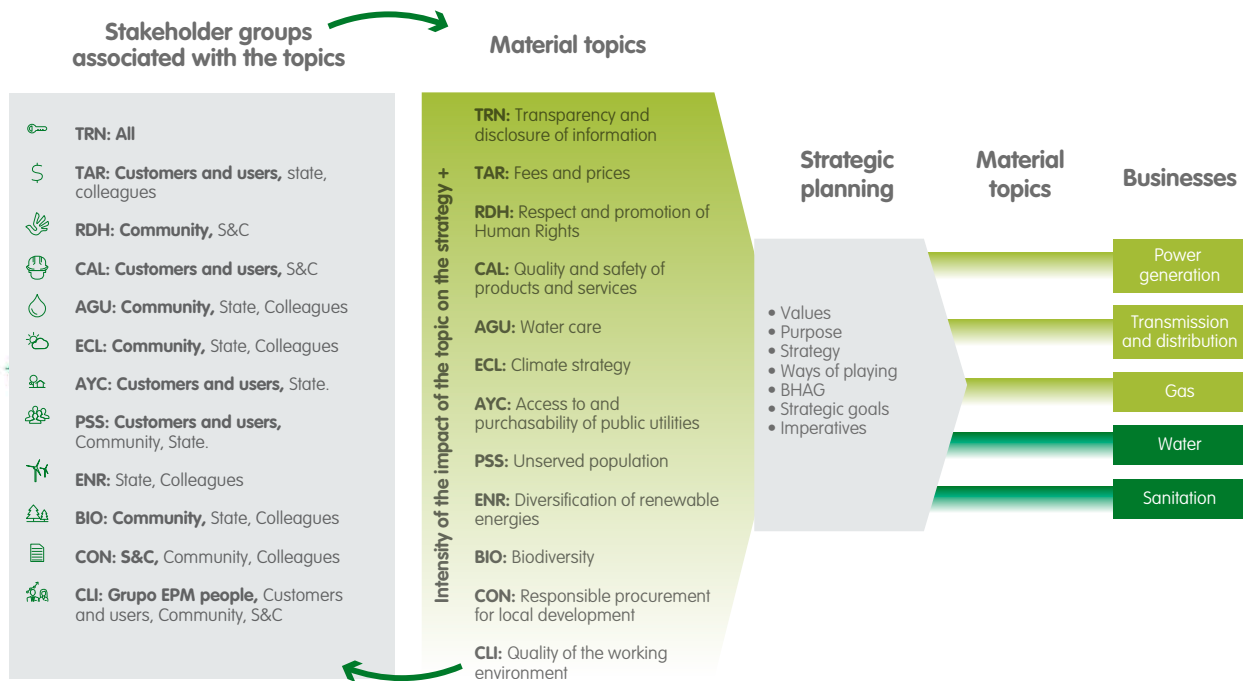
The internal boundaries or materiality of the topics in relation to the diverse departments of the organization was analyzed for the group and, in a global way, for all its companies, according to the degree of the impact of each material topic on the strategic planning elements of the group and its businesses. The result is represented with the intensity of the color of the block containing the list of material topics in the chart: Analysis of the external and internal elements on which the material topics have had an impact.

A lower color intensity of the block that represents the impact of the topics should not be interpreted as an indication of low importance, because all twelve aspects are the ones with the highest prioritization level for Grupo EPM. The intensity indicates less evidence regarding the impact on the elements of the strategy, which could increase if, for example, operating elements are assessed.



The external scope, that is, the materiality of the topic outside the organization, is expressed by means of the association between the stakeholders and the topics. **Disclosure 103-1.**

**Analysis of the external and internal elements on which the material topics have had an impact**



In the first materiality exercise of Grupo EPM, in 2014, the internal scope study concluded that the topics have different weight according to the particularities of each company and its context. In 2015, the priority of each aspect was refined in each of the affiliated companies. To this end, inquiries were conducted with the national affiliates, allowing to establish the group's material topics that, in case of not being managed in the corresponding affiliated company, would significantly affect the stakeholders and the strategic planning of Grupo EPM.

With the international affiliated companies, a first exercise was carried out to establish the material topics that should be included in the group's Sustainability Report. The results are recorded in the table of High-priority topics in affiliated companies.

The identification of emphases in the territories of the affiliated companies performed in 2017 will allow deepening the internal coverage in 2018.

**Disclosure 103-1**

## Supplementary information within the Sustainability Report

The 2017 sustainability report includes supplementary information regarding sustainability matters not classified as material topics. The report on these matters is preserved because it constitutes information of interest and because it responds to diverse commitments related to initiatives or measurements in which Grupo EPM has willingly participated and for which public information is necessary. The Sustainability Report is the most suitable means to provide it.

### Disclosure 102-49

## Restatement and correction of data given in previous reports

The following are the adjustments made to the data reported in previous years. These changes were the result of improvements to the **calculation methodologies or modifications to the information systems**:

### Disclosure 102-48

- In customers and users, in the "Installations by Grupo EPM" table, the waste collection customers' data were adjusted in 2015 and 2016, because the Emvarias's calculation criterion was considered.
- Regarding financing of accounts receivable and defaulting, in the "Grupo EPM energy defaulting" table, corrections were implemented in defaulting data of the affiliate ENSA for the years 2015 and 2016.
- As for climate change mitigation, in the "Other emissions - Grupo EPM" table, the information on the emissions corresponding to the transportation of people, vehicles, and products was adjusted and restated in 2016, based on the updated information of the vehicles. The figures corresponding to the emissions generated in 2015 by the La Sierra thermal power station were also adjusted.
- In energy consumption, in the "Internal Energy Consumption - Grupo EPM (GJ)" and "Internal Energy Consumption - EPM (GJ)" tables, the information on biogas, self-supplied electrical energy, and total energy consumption, corresponding to the years 2015 and 2016, was restated due to a calculation error.



# Communication on Progress (COP) Global Compact



Grupo·epm®



# Communication on Progress (COP) - Global Compact

EPM manages the engagement and commitment to its stakeholders according to the guidelines of the *Practitioner's Handbook on Stakeholder Engagement*, by UNEP, Accountability and Stakeholders Research Associates.

The company incorporates the ten principles of the United Nations Global Compact into a management of the commitments to its stakeholders that is immerse in its strategic and operative goals in the following way:

- **Human rights** management is associated with the following stakeholder groups: Suppliers and Contractors, Community, Customers and Users, and Grupo EPM People. The detailed report can be found in Respect and promotion of Human Rights.
- **Labor rights** management is associated with Grupo EPM people, and is reported in detail on Quality of the organizational climate and Working environment.
- **Environmental management** details are reported in Biodiversity, Water care, Diversification of renewable energies, Climate strategy and Sustainable production and consumption.
- The management approach and the subjects concerning **anti-corruption** are reported in Transparency and disclosure of information for stakeholders, Transparency practices, and Information for stakeholders.

The alignment of the EPM's social and environmental management topics with the Global Compact principles is described in: Global Compact.

EPM is willing to continue with its adherence to the Global Compact and with its participation in the activities of the Global Compact Network of Colombia and the Antioquia Node.

This report meets the requirements of the Communication on Progress, in line with the EPM's commitment to the Global Compact of reporting on the dissemination and implementation of the principles in its strategy and operations. Likewise, this report is the essential input for the Communication on Progress of the CEO Water Mandate; we are committed to developing the approach of this initiative since 2014.



Red Pacto Global  
Colombia

NIT: 900.327.192-5

Bogotá D.C. July 25, 2018

Mr.  
JORGE LONDOÑO DE LA CUESTA  
CEO  
GRUPO EPM  
Medellín

Below, the Global Compact Network Colombia presents its view resulting from reading and analyzing the Grupo EPM 2017 Sustainability Report, in line with the advanced COP criteria.

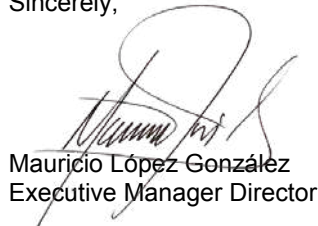
Advanced COP is a reporting progress policy that reviews the adoption of and commitment with the following aspects, assessed by twenty-one criteria:

1. Implement the 10 Principles in the Strategies and Operations
2. Strong Human Rights management policies and procedures
3. Strong Workforce management policies and procedures
4. Strong Environmental management policies and procedures
5. Strong Anti-Corruption management policies and procedures
6. Taking actions to support the widest reaching UN objectives and issues
7. Corporate Sustainability Leadership and Governance

The report's content demonstrates a 98% progress according to the advanced COP criteria analysis methodology. The instrument used to assess indicators and the thematic assessment documents are attached.

The Colombia's Global Compact Network strongly acknowledges Grupo EPM for its management and commitment with Global Compact's principles and objectives in its operations and with its stakeholders.

Sincerely,



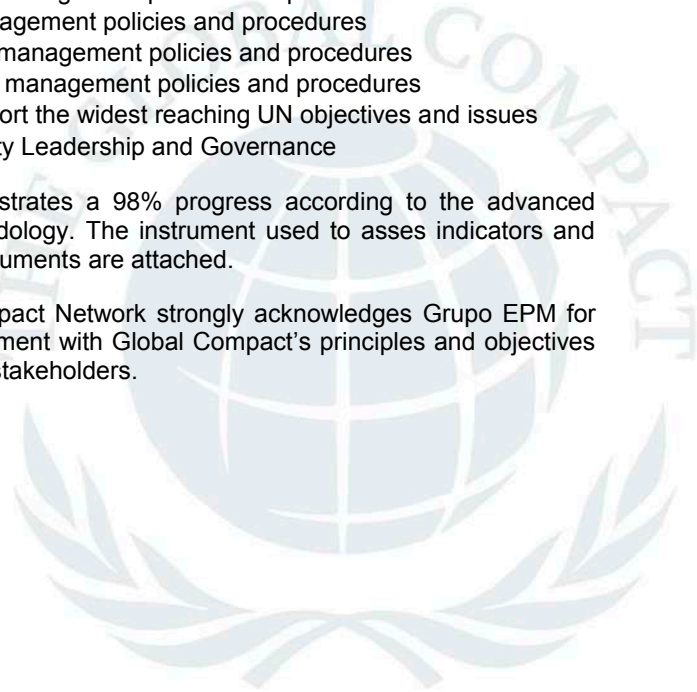
Mauricio López González  
Executive Manager Director

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**GRI Content  
Index**

**Grupo·epm<sup>®</sup>**

# GRI Content Index

| GRI General Disclosures      |                                  |                                                                      |                                                                                                                                       |                                                                                   |
|------------------------------|----------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| GRI Standard                 | GRI Standard Title               | GRI Standards Disclosures                                            | Location in the Report / Response                                                                                                     | The assurance report of these disclosures can be consulted in: External assurance |
| GRI 102. General Disclosures | <b>1. Organizational profile</b> | 102-1 Name of the organization.                                      | About us                                                                                                                              | ✓                                                                                 |
|                              |                                  | 102-10 Significant changes to the organization and its supply chain. | Consolidation<br>Growth<br>Our organization                                                                                           | ✓                                                                                 |
|                              |                                  | 102-11 Precautionary principle or approach.                          | Precautionary principle                                                                                                               | ✓                                                                                 |
|                              |                                  | 102-12 External initiatives.                                         | Water conservation<br>Fundación EPM<br>Commitments to external sustainability initiatives<br>Joint responsibility for the environment | ✓                                                                                 |
|                              |                                  | 102-13 Membership of associations.                                   | Stakeholder group:<br>Colleagues                                                                                                      | ✓                                                                                 |
|                              |                                  | 102-2 Activities, brands, products, and services.                    | About us                                                                                                                              | ✓                                                                                 |
|                              |                                  | 102-3 Location of headquarters.                                      | Report profile                                                                                                                        | ✓                                                                                 |
|                              |                                  | 102-4 Location of operations.                                        | About us                                                                                                                              | ✓                                                                                 |
|                              |                                  | 102-5 Ownership and legal form.                                      | Definitions of the group's control environment                                                                                        | ✓                                                                                 |
|                              |                                  | 102-6 Markets served.                                                | About us                                                                                                                              | ✓                                                                                 |
|                              |                                  | 102-7 Scale of the organization.                                     | About us<br>Stakeholder group: Grupo EPM people                                                                                       | ✓                                                                                 |
|                              |                                  | 102-8 Information on employees and other workers.                    | Number of employees<br>Implementation and impact of the supply chain                                                                  | ✓                                                                                 |

| GRI General Disclosures      |                           |                                                                                                                |                                                                                                                                                                                                                                                                                                                             |                                                                                   |
|------------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| GRI Standard                 | GRI Standard Title        | GRI Standards Disclosures                                                                                      | Location in the Report / Response                                                                                                                                                                                                                                                                                           | The assurance report of these disclosures can be consulted in: External assurance |
| GRI 102. General Disclosures | 1. Organizational profile | 102-9 Supply chain.                                                                                            | Our supply chain<br>Responsible procurement for local development<br>Impact on the procurement process<br>Social contracting<br>Local, regional, national, and foreign contracting<br>Implementation and impact of the supply chain<br>Supplier strengthening and development<br>Engagement with suppliers and contractors. | ✓                                                                                 |
|                              |                           | EU1 Installed capacity broken down by primary energy source and by regulatory regime.                          | About us                                                                                                                                                                                                                                                                                                                    | ✓                                                                                 |
|                              |                           | EU1 Installed capacity broken down by primary energy source and by regulatory regime.                          |                                                                                                                                                                                                                                                                                                                             | ✓                                                                                 |
|                              |                           | EU3 Number of residential, industrial, institutional, and commercial customer accounts.                        | Stakeholder group:<br>Customers and users<br>Service coverage and expansion                                                                                                                                                                                                                                                 | ✓                                                                                 |
|                              |                           | EU4 Length of above and underground transmission and distribution lines.                                       | Service coverage and expansion                                                                                                                                                                                                                                                                                              | ✓                                                                                 |
|                              |                           |                                                                                                                | About us                                                                                                                                                                                                                                                                                                                    | ✓                                                                                 |
|                              |                           | EU5 Allocation of CO <sub>2</sub> emissions allowances or equivalent, broken down by carbon trading framework. | Not reported. EPM does not operate in carbon trading markets.                                                                                                                                                                                                                                                               | ✗                                                                                 |



| GRI General Disclosures      |                         |                                                              |                                                                                                                                                                                                                                                                     |                                                                                   |
|------------------------------|-------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| GRI Standard                 | GRI Standard Title      | GRI Standards Disclosures                                    | Location in the Report / Response                                                                                                                                                                                                                                   | The assurance report of these disclosures can be consulted in: External assurance |
| GRI 102. General Disclosures | 2. Strategy             | 102-14 Statement from senior decision-maker.                 | Message from the CEO                                                                                                                                                                                                                                                | ✓                                                                                 |
|                              |                         | 102-15 Key impacts, risks, and opportunities.                | Corporate strategic planning<br>Competitive strategic planning<br>Challenges<br>Macro-trends<br>Comprehensive risk management                                                                                                                                       | ✓                                                                                 |
|                              | 3. Ethics and integrity | 102-16 Values, principles, standards, and norms of behavior. | Corporate strategic planning<br>Transparency practices                                                                                                                                                                                                              | ✓                                                                                 |
|                              |                         | 102-17 Mechanisms for advice and concerns about ethics.      | Institutional management in human rights<br>Human rights management in projects under construction<br>Human rights in the supply chain<br>Engagement with suppliers and contractors<br>Transparency practices<br>Control environment                                | ✓                                                                                 |
|                              | 4. Governance           | 102-18 Governance structure.                                 | Conceptual framework of Grupo EPM's corporate governance                                                                                                                                                                                                            | ✓                                                                                 |
|                              |                         | 102-19 Delegating authority.                                 | The process for delegating authority is carried out through the committees:<br>Performance of the EPM's Management:<br>Management support committees.<br>Administration of the EPM's Board of Directors:<br>Management of the committees of the board of directors. | ✓                                                                                 |

| GRI General Disclosures      |                      |                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                   |
|------------------------------|----------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| GRI Standard                 | GRI Standard Title   | GRI Standards Disclosures                                                             | Location in the Report / Response                                                                                                                                                                                                                                                                                                                                                                            | The assurance report of these disclosures can be consulted in: External assurance |
| GRI 102. General Disclosures | <b>4. Governance</b> | 102-20 Executive-level responsibility for economic, environmental, and social topics. | The Sustainable Development Management, appointed to the Executive Vice Presidency of Strategy and Growth, has as primary function "to lead the planning process in terms of economic, human, social, and environmental sustainability, and ensure its development and alignment with the Grupo EPM business plan, so that value generation is viable for Grupo EPM and its stakeholders."                   | ✓                                                                                 |
|                              |                      | 102-21 Consulting stakeholders on economic, environmental, and social topics.         | Stakeholder engagement: Dialogues with EPM's stakeholders<br>EPM's Sustainable Development Management coordinates the engagement model with stakeholders and reports on its performance to the senior management committees. The Vice Presidency of Corporate Communications and Relationships, along with the leaders of each stakeholder group, is responsible for materializing interaction and dialogue. | ✓                                                                                 |
|                              |                      | 102-22 Composition of the highest governance body and its committees.                 | Administration of the EPM's Board of Directors: Structure of the board of directors<br>Boards of directors of the group's companies in Latin America<br>Boards of directors of the group's companies in Colombia                                                                                                                                                                                             | ✓                                                                                 |

| GRI General Disclosures      |                      |                                                                                  |                                                                                                                                                                                                                                                                                                                                                              |                                                                                   |
|------------------------------|----------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| GRI Standard                 | GRI Standard Title   | GRI Standards Disclosures                                                        | Location in the Report / Response                                                                                                                                                                                                                                                                                                                            | The assurance report of these disclosures can be consulted in: External assurance |
| GRI 102. General Disclosures | <b>4. Governance</b> | 102-23 Chair of the highest governance body.                                     | Administration of the EPM's Board of Directors: Structure of the board of directors. The chairman of the board of directors does not hold an executive position in the organization.                                                                                                                                                                         | ✓                                                                                 |
|                              |                      | 102-24 Nominating and selecting the highest governance body.                     | Administration of the EPM's Board of Directors: Structure of the board of directors.                                                                                                                                                                                                                                                                         | ✓                                                                                 |
|                              |                      | 102-25 Conflicts of interest.                                                    | Administration of the EPM's Board of Directors: Conflicts of interest.                                                                                                                                                                                                                                                                                       |                                                                                   |
|                              |                      | 102-26 Role of highest governance body in setting purpose, values, and strategy. | The committees supporting the management and the board of directors are responsible for approving and updating the purpose, values, mission, strategies, policies, and goals:<br>Management of the EPM's administration: Management support committees.<br>Administration of the EPM's Board of Directors: Management of the board of directors' committees. | ✓                                                                                 |
|                              |                      | 102-27 Collective knowledge of highest governance body.                          | Administration of the EPM's Board of Directors: Management of the board of directors. Management of the board of directors' committees.                                                                                                                                                                                                                      | ✓                                                                                 |
|                              |                      | 102-28 Evaluating the highest governance body's performance.                     | Administration of the EPM's Board of Directors: Assessment of the board of directors.                                                                                                                                                                                                                                                                        | ✓                                                                                 |

| GRI General Disclosures      |                    |                                                                              |                                                                                                                                                                                                                                                                                                                                                                          |                                                                                   |
|------------------------------|--------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| GRI Standard                 | GRI Standard Title | GRI Standards Disclosures                                                    | Location in the Report / Response                                                                                                                                                                                                                                                                                                                                        | The assurance report of these disclosures can be consulted in: External assurance |
| GRI 102. General Disclosures | 4. Governance      | 102-29 Identifying and managing economic, environmental, and social impacts. | The committees supporting the management and the board of directors are responsible for identifying and managing the impacts, risks, and opportunities.<br>Management of the EPM's administration: Management support committees.<br>Administration of the EPM's Board of Directors: Management of the board of directors' committees.<br>Comprehensive risk management. | ✓                                                                                 |
|                              |                    | 102-30 Effectiveness of risk management processes.                           | The Comprehensive Risk Management Unit, appointed to the Executive Vice Presidency of Corporate Finance, Risk Management, and Investment, is responsible for reviewing the effectiveness of the risk management system.<br>Comprehensive risk management.                                                                                                                | ✓                                                                                 |
|                              |                    | 102-31 Review of economic, environmental, and social topics.                 | Administration of the EPM's Board of Directors: Management of the board of directors.<br>Management of the board of directors' committees.                                                                                                                                                                                                                               | ✓                                                                                 |
|                              |                    | 102-32 Highest governance body's role in sustainability reporting.           | Material aspects and boundaries, particularly in the validation stage.                                                                                                                                                                                                                                                                                                   | ✓                                                                                 |
|                              |                    | 102-33 Communicating critical concerns.                                      | According to their nature, topics addressed by the board of directors are previously reviewed by the support committees.<br>Administration of the EPM's Board of Directors: Management of the board of directors' committees.                                                                                                                                            | ✓                                                                                 |

| GRI General Disclosures      |                                                |                                                                |                                                                                                                                                                          |                                                                                   |
|------------------------------|------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| GRI Standard                 | GRI Standard Title                             | GRI Standards Disclosures                                      | Location in the Report / Response                                                                                                                                        | The assurance report of these disclosures can be consulted in: External assurance |
| GRI 102. General Disclosures | 4. Governance                                  | 102-34 Nature and total number of critical concerns.           | Administration of the EPM's Board of Directors in outstanding actions.                                                                                                   | ✓                                                                                 |
|                              |                                                | 102-35 Remuneration policies.                                  | Administration of the EPM's Board of Directors: Remuneration of the board of directors.<br>Management of the EPM's administration: Remuneration of EPM's Administration. | ✓                                                                                 |
|                              |                                                | 102-36 Process for determining remuneration.                   | Management of the EPM's administration:                                                                                                                                  | ✓                                                                                 |
|                              |                                                | 102-37 Stakeholders' involvement in remuneration.              | Remuneration of EPM's Administration.                                                                                                                                    | ✓                                                                                 |
|                              |                                                | 102-38 Annual total compensation ratio.                        | The ratio of the annual total compensation of the CEO to the median annual total compensation for all employees is 10.15.<br>Number of employees                         | ✓                                                                                 |
|                              |                                                | 102-39 Percentage increase in annual total compensation ratio. | Management of the EPM's administration: Remuneration of EPM's Administration.                                                                                            | ✓                                                                                 |
|                              |                                                | 5. Stakeholder engagement                                      | 102-40 List of stakeholder groups.                                                                                                                                       | Identification of stakeholders                                                    |
|                              | 102-41 Collective bargaining agreements.       |                                                                | Trade unions                                                                                                                                                             | ✓                                                                                 |
|                              | 102-42 Identifying and selecting stakeholders. |                                                                | Identification of stakeholders                                                                                                                                           | ✓                                                                                 |
|                              | 102-43 Approach to stakeholder engagement.     |                                                                | Stakeholder engagement Information for stakeholders                                                                                                                      | ✓                                                                                 |

| GRI General Disclosures      |                                                          |                                                                    |                                                                                                                                                                                                                                            |                                                                                   |
|------------------------------|----------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| GRI Standard                 | GRI Standard Title                                       | GRI Standards Disclosures                                          | Location in the Report / Response                                                                                                                                                                                                          | The assurance report of these disclosures can be consulted in: External assurance |
| GRI 102. General Disclosures | <b>5. Stakeholder engagement</b>                         | 102-44 Key topics and concerns raised.                             | The topics that are most relevant for each stakeholder group are listed and can be found in:<br>Customers and users<br>Community<br>Suppliers and contractors<br>Grupo EPM people<br>Owner<br>Partners<br>Investors<br>Colleagues<br>State | ✓                                                                                 |
|                              | <b>6. Reporting practice</b>                             | 102-45 Entities included in the consolidated financial statements. | Report profile                                                                                                                                                                                                                             | ✓                                                                                 |
|                              |                                                          | 102-46 Defining report content and topic boundaries.               | Material aspects and boundaries                                                                                                                                                                                                            | ✓                                                                                 |
|                              |                                                          | 102-47 List of material topics.                                    |                                                                                                                                                                                                                                            | ✓                                                                                 |
|                              |                                                          | 102-48 Restatements of information.                                | Material aspects and boundaries: Restatement and correction of data given in previous reports.                                                                                                                                             | ✓                                                                                 |
|                              |                                                          | 102-49 Changes in reporting.                                       | Material aspects and boundaries                                                                                                                                                                                                            | ✓                                                                                 |
|                              |                                                          | 102-50 Reporting period.                                           | Report profile                                                                                                                                                                                                                             | ✓                                                                                 |
|                              |                                                          | 102-51 Date of most recent report.                                 |                                                                                                                                                                                                                                            | ✓                                                                                 |
|                              |                                                          | 102-52 Reporting cycle.                                            |                                                                                                                                                                                                                                            | ✓                                                                                 |
|                              | 102-53 Contact point for questions regarding the report. | ✓                                                                  |                                                                                                                                                                                                                                            |                                                                                   |

| GRI General Disclosures      |                              |                                                                  |                                   |                                                                                   |
|------------------------------|------------------------------|------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------|
| GRI Standard                 | GRI Standard Title           | GRI Standards Disclosures                                        | Location in the Report / Response | The assurance report of these disclosures can be consulted in: External assurance |
| GRI 102. General Disclosures | <b>6. Reporting practice</b> | 102-54 Claims of reporting in accordance with the GRI Standards. | Report profile                    | ✓                                                                                 |
|                              |                              | 102-55 GRI content index.                                        |                                   | ✓                                                                                 |
|                              |                              | 102-56 External assurance.                                       |                                   | ✓                                                                                 |

### Material topics and GRI standards

| Material topic                                   | GRI Standard                        | GRI Standard Title                                                     | GRI Standards Disclosures                                 | Location in the Report / Response                | Omissions | Reasons for omission | The assurance report of these disclosures can be consulted in: External assurance |   |
|--------------------------------------------------|-------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------|-----------|----------------------|-----------------------------------------------------------------------------------|---|
| Access to and purchasability of public utilities | <b>GRI 103. Management approach</b> | GRI 103. Management approach                                           | 103-1 Explanation of the material topic and its boundary. | Access to and purchasability of public utilities |           |                      | ✓                                                                                 |   |
|                                                  |                                     |                                                                        | 103-2 The management approach and its components.         |                                                  |           |                      | ✓                                                                                 |   |
|                                                  |                                     |                                                                        | 103-3 Evaluation of the management approach.              |                                                  |           |                      | ✓                                                                                 |   |
|                                                  | <b>GRI 200. Economic</b>            | GRI 203. Indirect economic impacts                                     | 203-2 Significant indirect economic impacts               | Service coverage and expansion                   |           |                      |                                                                                   |   |
|                                                  |                                     |                                                                        |                                                           | Rural electrification                            |           |                      |                                                                                   | ✓ |
|                                                  |                                     |                                                                        |                                                           | Gas without borders                              |           |                      |                                                                                   | ✓ |
|                                                  |                                     |                                                                        |                                                           | Habitable homes                                  |           |                      |                                                                                   | ✓ |
|                                                  |                                     |                                                                        |                                                           | Pay according to your needs                      |           |                      |                                                                                   | ✓ |
|                                                  |                                     |                                                                        |                                                           | Public power stacks and community meters         |           |                      |                                                                                   |   |
|                                                  |                                     |                                                                        |                                                           | Unserviced population                            |           |                      |                                                                                   | ✓ |
|                                                  |                                     |                                                                        |                                                           | Prepaid services                                 |           |                      |                                                                                   | ✓ |
|                                                  | Access                              | EU26 Percentage of population unserved in licensed distribution areas. | Service coverage and expansion                            |                                                  |           |                      | ✓                                                                                 |   |



### Material topics and GRI standards

| Material topic | GRI Standard                        | GRI Standard Title           | GRI Standards Disclosures                                                                                                                        | Location in the Report / Response | Omissions | Reasons for omission | The assurance report of these disclosures can be consulted in: External assurance |   |
|----------------|-------------------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------|----------------------|-----------------------------------------------------------------------------------|---|
| Biodiversity   | <b>GRI 103. Management approach</b> | GRI 103. Management approach | 103-1 Explanation of the material topic and its boundary.                                                                                        | Biodiversity                      |           |                      | ✓                                                                                 |   |
|                |                                     |                              | 103-2 The management approach and its components.                                                                                                |                                   |           |                      | ✓                                                                                 |   |
|                |                                     |                              | 103-3 Evaluation of the management approach.                                                                                                     |                                   |           |                      | ✓                                                                                 |   |
|                | <b>GRI 300. Environmental</b>       | GRI 304. Biodiversity        | 304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas. | Preservation and restoration      |           |                      |                                                                                   | ✓ |
|                |                                     |                              | 304-2 Significant impacts of activities, products, and services on biodiversity.                                                                 | Impact management and offset      |           |                      |                                                                                   |   |
|                |                                     |                              | 304-3 Habitats protected or restored.                                                                                                            | Preservation and restoration      |           |                      |                                                                                   | ✓ |

| Material topics and GRI standards |                               |                       |                                                                                                                   |                                    |           |                      |                                                                                   |
|-----------------------------------|-------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------|----------------------|-----------------------------------------------------------------------------------|
| Material topic                    | GRI Standard                  | GRI Standard Title    | GRI Standards Disclosures                                                                                         | Location in the Report / Response  | Omissions | Reasons for omission | The assurance report of these disclosures can be consulted in: External assurance |
| Biodiversity                      | <b>GRI 300. Environmental</b> | GRI 304. Biodiversity | 304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations. | Conservation of threatened species |           |                      | ✓                                                                                 |
|                                   |                               |                       | EU13 Biodiversity of offset habitats compared to the biodiversity of the affected areas.                          | Impact management and offset       |           |                      | ✓                                                                                 |
|                                   | <b>Not applicable</b>         | Not applicable        | EPM-01 Conservation areas.                                                                                        | Conservation of threatened species |           |                      | ✓                                                                                 |

|                                    |                                     |                              |                                                           |                                             |  |  |   |
|------------------------------------|-------------------------------------|------------------------------|-----------------------------------------------------------|---------------------------------------------|--|--|---|
| Quality of the working environment | <b>GRI 103. Management approach</b> | GRI 103. Management approach | 103-1 Explanation of the material topic and its boundary. | Quality and safety of products and services |  |  | ✓ |
|                                    |                                     |                              | 103-2 The management approach and its components.         |                                             |  |  | ✓ |
|                                    |                                     |                              | 103-3 Evaluation of the management approach.              |                                             |  |  | ✓ |
|                                    | <b>Not applicable</b>               | Not applicable               | EPM-02 Results of the organizational climate measurement. | Organizational climate                      |  |  | ✓ |
|                                    |                                     |                              | EPM-18 Employee commitment.                               |                                             |  |  | ✓ |

### Material topics and GRI standards

| Material topic                              | GRI Standard                        | GRI Standard Title                  | GRI Standards Disclosures                                                                                                                                  | Location in the Report / Response           | Omissions | Reasons for omission | The assurance report of these disclosures can be consulted in: External assurance |
|---------------------------------------------|-------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------|----------------------|-----------------------------------------------------------------------------------|
| Quality and safety of products and services | <b>GRI 103. Management approach</b> | GRI 103. Management approach        | 103-1 Explanation of the material topic and its boundary                                                                                                   | Quality and safety of products and services |           |                      | ✓                                                                                 |
|                                             |                                     |                                     | 103-2 The management approach and its components.                                                                                                          |                                             |           |                      | ✓                                                                                 |
|                                             |                                     |                                     | 103-3 Evaluation of the management approach.                                                                                                               |                                             |           |                      | ✓                                                                                 |
|                                             | <b>GRI 400. Social</b>              | GRI 416. Customer health and safety | 416-2 Incidents of non-compliance concerning the health and safety impacts of products and service.                                                        | Reliability in the provision of the service |           |                      | ✓                                                                                 |
|                                             |                                     |                                     | EU25 Number of injuries and fatalities to the public involving company assets including legal judgments, settlements, and pending legal cases of diseases. |                                             |           |                      | ✓                                                                                 |

| Material topics and GRI standards           |                 |                                   |                                                                                                     |                                             |           |                      |                                                                                   |
|---------------------------------------------|-----------------|-----------------------------------|-----------------------------------------------------------------------------------------------------|---------------------------------------------|-----------|----------------------|-----------------------------------------------------------------------------------|
| Material topic                              | GRI Standard    | GRI Standard Title                | GRI Standards Disclosures                                                                           | Location in the Report / Response           | Omissions | Reasons for omission | The assurance report of these disclosures can be consulted in: External assurance |
| Quality and safety of products and services | GRI 400. Social | GRI 418. Customer privacy         | 418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data. | Customer service                            |           |                      | ✓                                                                                 |
|                                             |                 | GRI 419. Socioeconomic compliance | 419-1 Non-compliance with laws and regulations in the social and economic areas.                    | Reliability in the provision of the service |           |                      | ✓                                                                                 |
|                                             |                 | Access                            | EU28 Power outage frequency.                                                                        | Quality and continuity of service           |           |                      | ✓                                                                                 |
|                                             |                 |                                   | EU29 Average power outage duration.                                                                 |                                             |           | ✓                    |                                                                                   |
|                                             |                 |                                   | EU30 Average plant availability factor by energy source and by regulatory regime.                   | About us                                    |           |                      |                                                                                   |
|                                             | Not applicable  | Not applicable                    | EPM-03 Loss rate.                                                                                   | Loss management                             |           |                      | ✓                                                                                 |
|                                             |                 |                                   | EPM-04 Customer service channels.                                                                   | Customer service                            |           |                      | ✓                                                                                 |
|                                             |                 |                                   | EPM-05 Grievance indicator.                                                                         | Customer satisfaction                       |           |                      | ✓                                                                                 |
|                                             |                 |                                   | EPM-17 Customer loyalty index.                                                                      |                                             |           |                      | ✓                                                                                 |

### Material topics and GRI standards

| Material topic                                | GRI Standard                        | GRI Standard Title             | GRI Standards Disclosures                                           | Location in the Report / Response                  | Omissions | Reasons for omission | The assurance report of these disclosures can be consulted in: External assurance |
|-----------------------------------------------|-------------------------------------|--------------------------------|---------------------------------------------------------------------|----------------------------------------------------|-----------|----------------------|-----------------------------------------------------------------------------------|
| Responsible procurement for local development | <b>GRI 103. Management approach</b> | GRI 103. Management approach   | 103-1 Explanation of the material topic and its boundary.           | Responsible procurement for local development      |           |                      | ✓                                                                                 |
|                                               |                                     |                                | 103-2 The management approach and its components.                   |                                                    |           |                      | ✓                                                                                 |
|                                               |                                     |                                | 103-3 Evaluation of the management approach.                        |                                                    |           |                      | ✓                                                                                 |
|                                               | <b>GRI 200. Economic</b>            | GRI 204. Procurement practices | 204-1 Proportion of spending on local suppliers.                    | Local, regional, national, and foreign contracting |           |                      | ✓                                                                                 |
|                                               | <b>Not applicable</b>               | Not applicable                 | EPM-06 Number and value of social contracts.                        | Social contracting                                 |           |                      | ✓                                                                                 |
|                                               |                                     |                                | EPM-07 Number, value, and type of contracts at Grupo EPM.           | Impact on the contracting process                  |           |                      | ✓                                                                                 |
|                                               |                                     |                                | EPM-08 External employment generated through Grupo EPM's contracts. |                                                    |           |                      | ✓                                                                                 |
|                                               |                                     |                                | EPM-09 Suppliers' satisfaction.                                     | Engagement with suppliers and contractors          |           |                      | ✓                                                                                 |

### Material topics and GRI standards

| Material topic        | GRI Standard                        | GRI Standard Title           | GRI Standards Disclosures                                 | Location in the Report / Response | Omissions | Reasons for omission | The assurance report of these disclosures can be consulted in: External assurance |
|-----------------------|-------------------------------------|------------------------------|-----------------------------------------------------------|-----------------------------------|-----------|----------------------|-----------------------------------------------------------------------------------|
| Water care            | <b>GRI 103. Management approach</b> | GRI 103. Management approach | 103-1 Explanation of the material topic and its boundary. | Water care                        |           |                      | ✓                                                                                 |
|                       |                                     |                              | 103-2 The management approach and its components.         |                                   |           |                      | ✓                                                                                 |
|                       |                                     |                              | 103-3 Evaluation of the management approach.              |                                   |           |                      | ✓                                                                                 |
|                       | <b>GRI 300. Environmental</b>       | GRI 303. Water               | 303-1 Water withdrawal by source.                         | Water consumption                 |           |                      | ✓                                                                                 |
|                       |                                     |                              | 303-3 Water recycled and reused.                          |                                   |           |                      | ✓                                                                                 |
|                       |                                     | GRI 306. Effluents and waste | 306-1 Water discharge by quality and destination.         | Wastewater management             |           |                      | ✓                                                                                 |
| <b>Not applicable</b> | Not applicable                      | EPM-01 Conservation areas.   | Water conservation                                        |                                   |           | ✓                    |                                                                                   |
|                       |                                     | EPM-10 Water protection.     |                                                           |                                   |           | ✓                    |                                                                                   |

|                                       |                                     |                              |                                                           |                                       |  |  |   |
|---------------------------------------|-------------------------------------|------------------------------|-----------------------------------------------------------|---------------------------------------|--|--|---|
| Diversification of renewable energies | <b>GRI 103. Management approach</b> | GRI 103. Management approach | 103-1 Explanation of the material topic and its boundary. | Diversification of renewable energies |  |  | ✓ |
|                                       |                                     |                              | 103-2 The management approach and its components.         |                                       |  |  | ✓ |
|                                       |                                     |                              | 103-3 Evaluation of the management approach.              |                                       |  |  | ✓ |

| Material topics and GRI standards     |                       |                    |                                                             |                                   |           |                      |                                                                                   |
|---------------------------------------|-----------------------|--------------------|-------------------------------------------------------------|-----------------------------------|-----------|----------------------|-----------------------------------------------------------------------------------|
| Material topic                        | GRI Standard          | GRI Standard Title | GRI Standards Disclosures                                   | Location in the Report / Response | Omissions | Reasons for omission | The assurance report of these disclosures can be consulted in: External assurance |
| Diversification of renewable energies | <b>Not applicable</b> | Not applicable     | EPM-11 Initiatives of diversification of renewable energies | Biomass energy                    |           |                      | ✓                                                                                 |
|                                       |                       |                    |                                                             | Geothermal energy                 |           |                      | ✓                                                                                 |
|                                       |                       |                    |                                                             | Wind energy                       |           |                      | ✓                                                                                 |
|                                       |                       |                    |                                                             | Solar energy                      |           |                      | ✓                                                                                 |
|                                       |                       |                    |                                                             | Biogas energy                     |           |                      | ✓                                                                                 |

|                  |                                     |                               |                                                                                       |                                                      |  |  |   |
|------------------|-------------------------------------|-------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------|--|--|---|
| Climate strategy | <b>GRI 103. Management approach</b> | GRI 103. Management approach  | 103-1 Explanation of the material topic and its boundary.                             | Climate strategy                                     |  |  | ✓ |
|                  |                                     |                               | 103-2 The management approach and its components.                                     |                                                      |  |  | ✓ |
|                  |                                     |                               | 103-3 Evaluation of the management approach.                                          |                                                      |  |  | ✓ |
|                  | <b>GRI 200. Economic</b>            | GRI 201. Economic performance | 201-2 Financial implications and other risks and opportunities due to climate change. | Climate strategy management                          |  |  | ✓ |
|                  | <b>GRI 200. Economic</b>            | GRI 201. Economic performance |                                                                                       | Adaptation to natural variability and climate change |  |  | ✓ |
|                  | <b>GRI 300. Environmental</b>       | GRI 305. Emissions            | 305-1 Direct (Scope 1) GHG emissions.                                                 | Climate change mitigation                            |  |  | ✓ |
|                  |                                     |                               | 305-2 Energy indirect (Scope 2) GHG emissions.                                        |                                                      |  |  | ✓ |
|                  |                                     |                               | 305-3 Other indirect (Scope 3) GHG emissions.                                         |                                                      |  |  | ✓ |

| Material topics and GRI standards |                               |                    |                                                                                        |                                   |           |                      |                                                                                   |
|-----------------------------------|-------------------------------|--------------------|----------------------------------------------------------------------------------------|-----------------------------------|-----------|----------------------|-----------------------------------------------------------------------------------|
| Material topic                    | GRI Standard                  | GRI Standard Title | GRI Standards Disclosures                                                              | Location in the Report / Response | Omissions | Reasons for omission | The assurance report of these disclosures can be consulted in: External assurance |
| Climate strategy                  | <b>GRI 300. Environmental</b> | GRI 305. Emissions | 305-4 GHG emissions intensity.                                                         | Climate change mitigation         |           |                      |                                                                                   |
|                                   |                               |                    | 305-5 Reduction of GHG emissions.                                                      | Climate strategy management       |           |                      | ✓                                                                                 |
|                                   |                               |                    | 305-6 Emissions of ozone-depleting substances (ODS).                                   | Climate change mitigation         |           |                      |                                                                                   |
|                                   |                               |                    | 305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions. |                                   |           |                      | ✓                                                                                 |

|                       |                                     |                              |                                                           |                       |  |  |   |
|-----------------------|-------------------------------------|------------------------------|-----------------------------------------------------------|-----------------------|--|--|---|
| Unserviced population | <b>GRI 103. Management approach</b> | GRI 103. Management approach | 103-1 Explanation of the material topic and its boundary. | Unserviced population |  |  | ✓ |
|                       |                                     |                              | 103-2 The management approach and its components.         |                       |  |  | ✓ |
|                       |                                     |                              | 103-3 Evaluation of the management approach.              |                       |  |  | ✓ |
|                       | <b>Not applicable</b>               | Not applicable               | EPM-12 Solutions for unserved homes.                      |                       |  |  | ✓ |



### Material topics and GRI standards

| Material topic                        | GRI Standard                        | GRI Standard Title                                        | GRI Standards Disclosures                                                                                             | Location in the Report / Response                                                                         | Omissions                | Reasons for omission                                          | The assurance report of these disclosures can be consulted in: External assurance |
|---------------------------------------|-------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Respect and promotion of Human Rights | <b>GRI 103. Management approach</b> | GRI 103. Management approach                              | 103-1 Explanation of the material topic and its boundary.                                                             | Respect and promotion of Human Rights                                                                     |                          |                                                               | ✓                                                                                 |
|                                       |                                     |                                                           | 103-2 The management approach and its components.                                                                     | Institutional management in human rights<br>Human rights in the supply chain<br>Security and human rights |                          |                                                               | ✓                                                                                 |
|                                       |                                     |                                                           |                                                                                                                       |                                                                                                           |                          |                                                               | ✓                                                                                 |
|                                       |                                     |                                                           | 103-3 Evaluation of the management approach.                                                                          | Respect and promotion of Human Rights                                                                     |                          |                                                               | ✓                                                                                 |
|                                       | <b>GRI 400. Social</b>              | Local communities                                         | EU22 Number of people physically or economically displaced and compensation, broken down by type of project.          | Human rights management in projects under construction<br>Security and human rights                       | Confidential information | The compensation offered to displaced people is not reported. | ✓                                                                                 |
|                                       |                                     | GRI 406. Non-discrimination                               | 406-1 Incidents of discrimination and corrective actions taken.                                                       |                                                                                                           |                          |                                                               | ✓                                                                                 |
|                                       |                                     | GRI 407. Freedom of association and collective bargaining | 407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk. | Institutional management in human rights                                                                  |                          |                                                               |                                                                                   |

### Material topics and GRI standards

| Material topic                        | GRI Standard           | GRI Standard Title                                                        | GRI Standards Disclosures                                                                       | Location in the Report / Response                                                                                                                          | Omissions                                | Reasons for omission | The assurance report of these disclosures can be consulted in: External assurance |
|---------------------------------------|------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------|-----------------------------------------------------------------------------------|
| Respect and promotion of Human Rights | <b>GRI 400. Social</b> | GRI 408. Child labor                                                      | 408-1 Operations and suppliers at significant risk for incidents of child labor.                | Human rights in the supply chain<br>Risk associated to forced labor is minimized through the incorporation of clauses into the contracting specifications. |                                          |                      |                                                                                   |
|                                       |                        | GRI 409. Forced or compulsory labor                                       | 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor. |                                                                                                                                                            |                                          |                      |                                                                                   |
|                                       |                        | GRI 410. Security practices                                               | 410-1 Security personnel trained in human rights policies or procedures.                        | Security and human rights                                                                                                                                  |                                          |                      | ✓                                                                                 |
|                                       |                        | GRI 411. Rights of indigenous peoples<br>GRI 412. Human rights assessment | 411-1 Incidents of violations involving rights of indigenous peoples.                           | Institutional management in human rights<br>Human rights management in projects under construction                                                         |                                          |                      | ✓                                                                                 |
|                                       |                        | GRI 412. Human rights assessment                                          | 412-1 Operations that have been subject to human rights reviews or impact assessments.          |                                                                                                                                                            |                                          |                      |                                                                                   |
|                                       |                        |                                                                           |                                                                                                 | 412-2 Employee training on human rights policies or procedures.                                                                                            | Institutional management in human rights |                      |                                                                                   |

Material topics and GRI standards

| Material topic                        | GRI Standard           | GRI Standard Title                  | GRI Standards Disclosures                                                                                                         | Location in the Report / Response                                                | Omissions | Reasons for omission                                       | The assurance report of these disclosures can be consulted in: External assurance |
|---------------------------------------|------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------|------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Respect and promotion of Human Rights | <b>GRI 400. Social</b> | GRI 412. Human rights assessment    | 412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening. | Human rights in the supply chain                                                 | No data   | Investment agreements do not include human rights clauses. |                                                                                   |
|                                       |                        | GRI 413. Local communities          | 413-1 Operations with local community engagement, impact assessments, and development programs.                                   | Human rights management in projects under construction Security and human rights |           |                                                            |                                                                                   |
|                                       |                        | GRI 414. Supplier social assessment | 414-1 New suppliers that were screened using social criteria.                                                                     |                                                                                  |           |                                                            |                                                                                   |
|                                       |                        |                                     | 414-2 Negative social impacts in the supply chain and actions taken.                                                              |                                                                                  |           |                                                            | ✓                                                                                 |

### Material topics and GRI standards

| Material topic  | GRI Standard                        | GRI Standard Title           | GRI Standards Disclosures                                 | Location in the Report / Response | Omissions | Reasons for omission | The assurance report of these disclosures can be consulted in: External assurance |   |
|-----------------|-------------------------------------|------------------------------|-----------------------------------------------------------|-----------------------------------|-----------|----------------------|-----------------------------------------------------------------------------------|---|
| Fees and prices | <b>GRI 103. Management approach</b> | GRI 103. Management approach | 103-1 Explanation of the material topic and its boundary. | Fees and prices                   |           |                      | ✓                                                                                 |   |
|                 |                                     |                              | 103-2 The management approach and its components.         |                                   |           |                      | ✓                                                                                 |   |
|                 |                                     |                              | 103-3 Evaluation of the management approach.              |                                   |           |                      | ✓                                                                                 |   |
|                 | <b>Not applicable</b>               | Not applicable               | EPM-13 Fees by type of service.                           | Water supply and sewerage fees    |           |                      |                                                                                   | ✓ |
|                 |                                     |                              |                                                           | Sanitation fees                   |           |                      |                                                                                   | ✓ |
|                 |                                     |                              |                                                           | Electricity fees                  |           |                      |                                                                                   | ✓ |
|                 |                                     |                              |                                                           | Gas fees                          |           |                      |                                                                                   | ✓ |

|                                                             |                                     |                              |                                                                                 |                                                             |  |  |   |
|-------------------------------------------------------------|-------------------------------------|------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------|--|--|---|
| Transparency and disclosure of information for stakeholders | <b>GRI 103. Management approach</b> | GRI 103. Management approach | 103-1 Explanation of the material topic and its boundary.                       | Transparency and disclosure of information for stakeholders |  |  | ✓ |
|                                                             |                                     |                              | 103-2 The management approach and its components.                               |                                                             |  |  | ✓ |
|                                                             |                                     |                              | 103-3 Evaluation of the management approach.                                    |                                                             |  |  | ✓ |
|                                                             | <b>GRI 200. Economic</b>            | GRI 205. Anti-corruption     | 205-2 Communication and training about anti-corruption policies and procedures. | Transparency practices                                      |  |  | ✓ |
|                                                             | <b>Not applicable</b>               | Not applicable               | EPM-14 Transparencia por Colombia indicator.                                    |                                                             |  |  |   |
| EPM-15 External communication strategy and mechanisms.      |                                     |                              | Information for stakeholders                                                    |                                                             |  |  | ✓ |

| Complementary aspects and GRI standards |                                     |                                    |                                                           |                                   |                                                                                   |
|-----------------------------------------|-------------------------------------|------------------------------------|-----------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------|
| Complementary aspect                    | GRI Standard                        | GRI Standard Title                 | GRI Standards Disclosures                                 | Location in the Report / Response | The assurance report of these disclosures can be consulted in: External assurance |
| Corporate citizenship                   | <b>GRI 103. Management approach</b> | GRI 103. Management approach       | 103-1 Explanation of the material topic and its boundary. | Corporate citizenship             |                                                                                   |
|                                         |                                     |                                    | 103-2 The management approach and its components.         |                                   |                                                                                   |
|                                         | <b>GRI 200. Economic</b>            | GRI 203. Indirect economic impacts | 203-1 Infrastructure investments and services supported.  | Fundación EPM                     |                                                                                   |
|                                         |                                     |                                    | 203-2 Significant indirect economic impacts.              | Christmas lighting                |                                                                                   |
|                                         |                                     |                                    |                                                           | Events and sponsorships           |                                                                                   |
|                                         |                                     |                                    |                                                           | Fundación EPM                     |                                                                                   |
| City projects                           |                                     |                                    |                                                           |                                   |                                                                                   |

|                     |                                     |                                                 |                                                           |                                                   |                     |                                              |  |
|---------------------|-------------------------------------|-------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------------------|----------------------------------------------|--|
| Working environment | <b>GRI 102. General disclosures</b> | 1. Organizational profile                       | 102-8 Information on employees and other workers.         | Implementation and impact of the supply chain     |                     |                                              |  |
|                     |                                     |                                                 |                                                           | Number of employees                               |                     |                                              |  |
|                     | <b>GRI 103. Management approach</b> | GRI 103. Management approach                    | 103-1 Explanation of the material topic and its boundary. | 103-2 The management approach and its components. | Working environment |                                              |  |
|                     |                                     |                                                 |                                                           |                                                   |                     | 103-3 Evaluation of the management approach. |  |
|                     |                                     |                                                 |                                                           |                                                   |                     |                                              |  |
|                     | <b>GRI 200. Economic</b>            | 5. Participación de los grupos de interés       | 102-41 Acuerdos de negociación colectiva.                 | Organizaciones sindicales                         |                     |                                              |  |
| GRI 401. Employment |                                     | 401-1 New employee hires and employee turnover. | Number of employees                                       |                                                   |                     |                                              |  |

| Complementary aspects and GRI standards |                          |                     |                                                                                                                             |                                   |                                                                                   |
|-----------------------------------------|--------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------|
| Complementary aspect                    | GRI Standard             | GRI Standard Title  | GRI Standards Disclosures                                                                                                   | Location in the Report / Response | The assurance report of these disclosures can be consulted in: External assurance |
| Working environment                     | <b>GRI 200. Economic</b> | GRI 401. Employment | 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees.                   | Employee welfare and benefits     |                                                                                   |
|                                         |                          |                     | EU14 Programs and processes to ensure the availability of a skilled workforce.                                              | Personnel selection               |                                                                                   |
|                                         |                          |                     | EU15 Percentage of employees eligible to retire in the next 5 and 10 years, broken down by job category and by region.      | Retirees and pensioners           |                                                                                   |
|                                         |                          |                     | EU16 Policies and requirements regarding health and safety of employees, contractors, and subcontractors.                   | Occupational health and safety    |                                                                                   |
|                                         |                          |                     | EU17 Days worked by contractor and subcontractor employees involved in construction, operation, and maintenance activities. |                                   |                                                                                   |
|                                         |                          |                     | EU18 Percentage of contractor and subcontractor employees that have undergone relevant health and safety training.          |                                   |                                                                                   |

| Complementary aspects and GRI standards |                          |                                          |                                                                                                                                  |                                   |                                                                                   |
|-----------------------------------------|--------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------|
| Complementary aspect                    | GRI Standard             | GRI Standard Title                       | GRI Standards Disclosures                                                                                                        | Location in the Report / Response | The assurance report of these disclosures can be consulted in: External assurance |
| Working environment                     | <b>GRI 200. Economic</b> | GRI 403. Occupational health and safety  | 403-2 Types of injury and rates of injury, occupational diseases, lost days, absenteeism, and number of work-related fatalities. | Occupational health and safety    |                                                                                   |
|                                         |                          |                                          | 403-3 Workers with high incidence or high risk of diseases related to their occupation.                                          |                                   |                                                                                   |
|                                         |                          |                                          | 403-4 Health and safety topics covered in formal agreements with trade unions.                                                   |                                   |                                                                                   |
|                                         |                          | GRI 404. Training and education          | 404-1 Average hours of training per year per employee.                                                                           | Training and development          |                                                                                   |
|                                         |                          |                                          | 404-2 Programs for upgrading employee skills and transition assistance programs.                                                 |                                   |                                                                                   |
|                                         |                          |                                          | 404-3 Percentage of employees receiving regular performance and career development reviews.                                      | Work performance                  |                                                                                   |
|                                         |                          | GRI 405. Diversity and equal opportunity | 405-1 Diversity of governance bodies and employees.                                                                              | Number of employees               |                                                                                   |
|                                         |                          | Not applicable                           | EPM-16 Percentage of employees surveyed in quality of life and psychosocial risk.                                                | Quality of life                   |                                                                                   |

| Complementary aspects and GRI standards         |                                     |                                    |                                                                                                 |                                                                                                     |                                                                                   |
|-------------------------------------------------|-------------------------------------|------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Complementary aspect                            | GRI Standard                        | GRI Standard Title                 | GRI Standards Disclosures                                                                       | Location in the Report / Response                                                                   | The assurance report of these disclosures can be consulted in: External assurance |
| Social and environmental management in projects | <b>GRI 103. Management approach</b> | GRI 103. Management approach       | 103-1 Explanation of the material topic and its boundary.                                       | Social and environmental management in projects                                                     |                                                                                   |
|                                                 |                                     |                                    | 103-2 The management approach and its components.                                               |                                                                                                     |                                                                                   |
|                                                 |                                     |                                    | 103-3 Evaluation of the management approach.                                                    |                                                                                                     |                                                                                   |
|                                                 | <b>GRI 200. Economic</b>            | GRI 203. Indirect economic impacts | 203-1 Infrastructure investments and services supported.                                        | Ituango Hydroelectric Project                                                                       |                                                                                   |
|                                                 |                                     |                                    | 203-2 Significant indirect economic impacts.                                                    | Aguas Claras – EPM's Waste Water Treatment Plant Park                                               |                                                                                   |
|                                                 | <b>GRI 400. Social</b>              | GRI 413. Local communities         | 413-1 Operations with local community engagement, impact assessments, and development programs. | Aldeas Program Bello – Guayabal – Ancón Project<br>Nueva Esperanza Project<br>Intermediate projects |                                                                                   |
|                                                 |                                     |                                    | 413-2 Operations with significant actual and potential negative impacts on local communities.   | In all projects, impacts are measured and analyzed in order to identify the negative ones.          |                                                                                   |



| Complementary aspects and GRI standards |                                     |                              |                                                           |                                                       |                                                                                   |   |
|-----------------------------------------|-------------------------------------|------------------------------|-----------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------|---|
| Complementary aspect                    | GRI Standard                        | GRI Standard Title           | GRI Standards Disclosures                                 | Location in the Report / Response                     | The assurance report of these disclosures can be consulted in: External assurance |   |
| Sustainable production and consumption  | <b>GRI 103. Management approach</b> | GRI 103. Management approach | 103-1 Explanation of the material topic and its boundary. | Sustainable production and consumption                |                                                                                   |   |
|                                         |                                     |                              | 103-2 The management approach and its components.         |                                                       |                                                                                   |   |
|                                         |                                     |                              | 103-3 Evaluation of the management approach.              |                                                       |                                                                                   |   |
|                                         | <b>GRI 300. Environmental</b>       | GRI 301. Materials           | GRI 301. Materials                                        | 301-1 Materials used by weight or volume.             | Other consumptions and efficient practices                                        |   |
|                                         |                                     |                              |                                                           | 301-2 Recycled input materials used.                  |                                                                                   |   |
|                                         |                                     | GRI 302. Energy              | GRI 302. Energy                                           | 302-1 Energy consumption within the organization.     | Energy consumption                                                                | ✓ |
|                                         |                                     |                              |                                                           | 302-2 Energy consumption outside of the organization. |                                                                                   | ✓ |
|                                         |                                     |                              |                                                           | 302-3 Energy intensity.                               |                                                                                   | ✓ |
|                                         |                                     |                              |                                                           | 302-4 Reduction of energy consumption.                |                                                                                   |   |
|                                         |                                     | GRI 306. Effluents and waste | GRI 306. Effluents and waste                              | 306-2 Waste by type and disposal method.              | Waste management                                                                  | ✓ |
| 306-4 Transport of hazardous waste.     |                                     |                              |                                                           |                                                       |                                                                                   |   |



**External assurance  
of the report**



**Grupo·epm®**



## External assurance of the report

In accordance with the independence standards required by the Code of Ethics of the International Federation of Accountants (IFAC), the independent assurance report issued by Deloitte confirms their independence from EPM. Additionally, it also mentions that all employees complete annual updates to the ethics policy, in which they specifically declare no conflict of interest with EPM, its subsidiaries, or its stakeholders.

The inspection was conducted in accordance with ISAE 3000 - International Standard on Assurance Engagements Other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board (IAASB) of the International Federation of Accounts (IFAC).

In accordance with the **Disclosure 102-56**, the assurance report presents, for each of the material aspects, the contents of the GRI Standards or the own indicators that were subject to verification.

The conclusion of the independent verification states that there is no evidence of issues that would indicate that the Sustainability Report contains significant errors or that has not been prepared in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (GRI), with comprehensive compliance criteria.

This Sustainability Report was externally assured by Deloitte & Touche, the company that performs the external audit of EPM and the tax audit of the Grupo EPM's companies.



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## Independent Review Report

Independent Review of the 2017 Sustainability Report of the EPM Group.

### Scope of our work

We have reviewed the adaptation of the contents of the 2017 Sustainability Report of the EPM Group to the Consolidated set of GRI Sustainability Reporting Standards, hereinafter "GRI Standards".

### Standards and verification processes

We conducted our work in accordance with ISAE 3000 - *International Standard on Assurance Engagements Other than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standard Board (IAASB) of the International Federation of Accountants (IFAC)*, with the Standard AA1000 *Stakeholder Engagement Standard AA1000SES* (2015) and the International framework of the International Integrated Reporting Council (IIRC).

Our review work consisted in formulating questions to the management, as well as to the various areas of the EPM Group who participated in the development of the 2017 Sustainability Report and the application of certain analytical procedures and review testing sample described below:

- Interviews with EPM Group employees to know about the principles, management approaches and data consolidation systems applied to prepare the report.
- Analysis of how the process of definition of the contents, structure and indicators were defined, based on the materiality exercise according to the GRI Standards.
- Evaluation of the process to collect and validate the data presented in the report.
- Meetings with national and international subsidiaries to check the information included in the report of the EPM Group.
- Checking, by testing based on sample selection and review of evidence of quantitative and qualitative information corresponding to the GRI Contents and the EPM Group internal indicators included in the 2017 Sustainability Report and their proper compilation from the data supplied by the sources of information of the EPM Group.

### Responsibilities of the Management of The EPM Group and Deloitte.

The preparation of 2017 Sustainability Report of the EPM Group and its contents are the responsibility of the organization which is also responsible for defining, adapting and maintaining management systems and internal control, from which the information is obtained.

Our responsibility is to issue an independent report based on our review procedures applied.

This report has been prepared exclusively in the interests of the organization in accordance with the terms of our proposed services. We do not assume any liability to third parties, other than the company Direction.

We have performed our work in accordance with the Independence regulations required by the etic code of the International Federation of Accountants (IFAC).

The Scope of a limited Review is substantially less than an audit. Therefore, we don't provide an audit opinion about the sustainability report.

DELOITTE & TOUCHE LTDA.  
Jorge Enrique Múnera D.  
Socio

Medellín, April 2018

## Confirmation that the 2017 Sustainability Report has been prepared in accordance with the "Comprehensive" option of the GRI Standards

### Universal Standards

It was confirmed that the report meets the requirements of the "Comprehensive" option of the Universal Standards, specifically with the Foundation and General Disclosures of the GRI Standards.

### Topic-Specific Standards

We reviewed the Management Approach, GRI Topic-Specific Standards, the Electric Utilities Sector Disclosure and internal indicators of EPM associated with the material issues defined in the materiality analysis of the company (see Annex 1).

### **Conclusions**

As a result of our review, we did not encounter any revelation that leads us to believe that the 2017 Sustainability Report of the EPM Group contains significant errors or has not been prepared in accordance with the GRI Standards, "Comprehensive" option.

### **Recommendations**

In addition, we have presented to the Sustainable Development Management Division of the EPM Group our recommendations in order to consolidate the processes, programs and systems related to sustainability management. The most relevant recommendation refers to:

- Expand the periodic monitoring of progress in the management of material issues to national and international subsidiaries, in order to continue incorporating material issues into the management and reporting process.
- Continue to strengthen the unification of criteria among EPM Group subsidiaries to report indicators associated with material issues.

### **Annex 1**

| <b>Material Issues</b>                                   | <b>GRI Contents and EPM indicators</b>                                |
|----------------------------------------------------------|-----------------------------------------------------------------------|
| Access and purchasing power of public utilities services | 203-2                                                                 |
| Biodiversity                                             | EU13, 304-1, 304-3, 304-4, EPM-01                                     |
| Quality of working environment                           | EPM-02, EPM-18                                                        |
| Quality and safety of products and services              | EU25, EU28, EU29, 416-2, 418-1, 419-1, EPM-03, EPM-04, EPM-05, EPM-17 |
| Responsible procurement for local development            | 204-1, EPM-06, EPM-07, EPM-08, EPM-09                                 |
| Water care                                               | 303-1, 303-3, 306-1, EPM-01, EPM-10                                   |
| Diversification of renewable energies                    | EPM-11                                                                |
| Climate strategy                                         | 201-2, 305-1, 305-2, 305-3, 305-5, 305-7                              |

|                                                       |                                         |
|-------------------------------------------------------|-----------------------------------------|
| Unserved population                                   | EPM-12                                  |
| Respect and promotion of Human Rights                 | 406-1, 410-1, 411-1, 412-2, 414-2, EU22 |
| Fees and prices                                       | EPM-13                                  |
| Transparency and information openness to stakeholders | 205-2, EPM-15                           |

## Annex 2

In addition, we verify the following GRI Contents associated with the complementary issue Sustainable production and consumption:

| Complementary issue                    | GRI Contents               |
|----------------------------------------|----------------------------|
| Sustainable production and consumption | 302-1, 302-2, 302-3, 306-2 |

## Annex 3 Declaration of Independence

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**Alignment** with  
sustainability  
initiatives



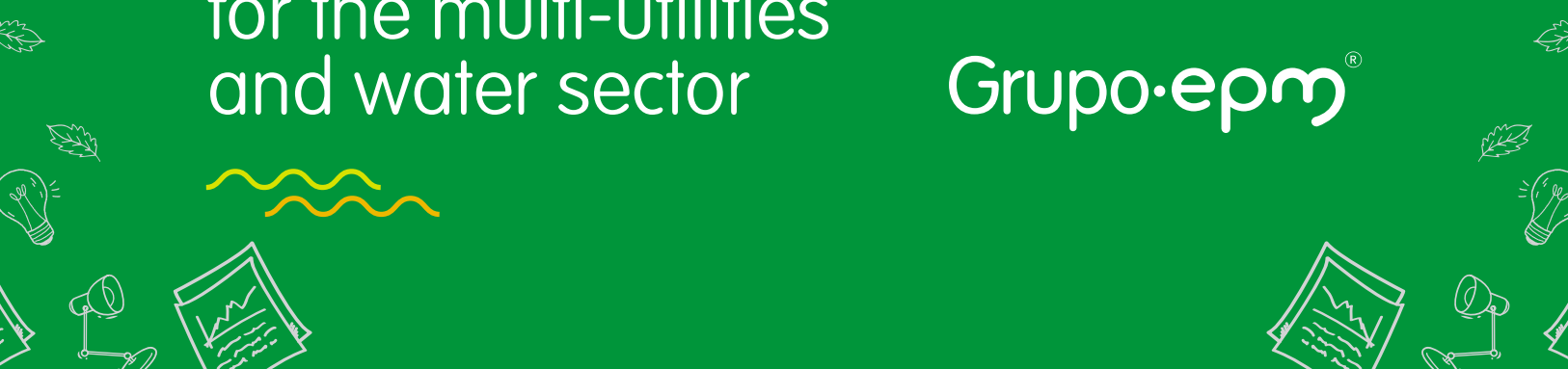
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**GRI** – Dow Jones  
Sustainability Index  
for the multi-utilities  
and water sector



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# GRI – Dow Jones Sustainability Index for the multi-utilities and water sector

Alignment between the GRI Standards and the Dow Jones Sustainability Index for the multi-utilities and water sector

| GRI Standards                                                                      |                                                                                     | DJSI 2017                                                     |                                                     |                               |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------|-------------------------------|
|                                                                                    |                                                                                     | Dimension                                                     | Criterion                                           |                               |
|  | Reporting principles                                                                | 1 - Economic                                                  | 1.2 - Materiality                                   |                               |
|                                                                                    |                                                                                     | 2 - Environmental                                             | 2.1 - Environmental report                          |                               |
|                                                                                    |                                                                                     | 3 - Social                                                    | 3.1 - Social report<br>3.8 - Stakeholder engagement |                               |
|                                                                                    | Using the GRI Standards for sustainability reporting                                | 2 - Environmental                                             | 2.1 - Environmental report                          |                               |
|                                                                                    |                                                                                     | 3 - Social                                                    | 3.1 - Social report                                 |                               |
|                                                                                    | Making claims related to the use of the GRI Standards                               | 2 - Environmental                                             | 2.1 - Environmental report                          |                               |
|                                                                                    |                                                                                     | 3 - Social                                                    | 3.1 - Social report                                 |                               |
|                                                                                    |  | Organizational profile                                        | 1 - Economic                                        | 1.1 - Corporate governance    |
|                                                                                    |                                                                                     |                                                               |                                                     | 1.6 - Public policy influence |
| 1.7 - Supply chain management                                                      |                                                                                     |                                                               |                                                     |                               |
| 1.9 - Innovation management                                                        |                                                                                     |                                                               |                                                     |                               |
| 1.10 - Market opportunities                                                        |                                                                                     |                                                               |                                                     |                               |
| 2 - Environmental                                                                  |                                                                                     | 2.2 - Environmental management system or policy               |                                                     |                               |
|                                                                                    |                                                                                     | 2.6 - Electricity generation                                  |                                                     |                               |
|                                                                                    |                                                                                     | 2.7 - Transmission and distribution<br>2.8 - Water operations |                                                     |                               |
| 3 - Social                                                                         |                                                                                     | 3.2 - Labor practice indicators                               |                                                     |                               |



| GRI Standards                         |                              | DJSI 2017                       |                                                 |
|---------------------------------------|------------------------------|---------------------------------|-------------------------------------------------|
|                                       |                              | Dimension                       | Criterion                                       |
| General Disclosures<br><b>GRI 102</b> | Strategy                     | 1 - Economic                    | 1.1 - Corporate governance                      |
|                                       |                              |                                 | 1.3 - Risk and crisis management                |
|                                       |                              |                                 | 1.5 - Customer engagement management            |
|                                       |                              |                                 | 1.7 - Supply chain management                   |
|                                       |                              |                                 | 1.8 - Information security and cybersecurity    |
|                                       |                              |                                 | 1.9 - Innovation management                     |
|                                       |                              |                                 | 1.10 - Market opportunities                     |
|                                       |                              | 2 - Environmental               | 2.2 - Environmental management system or policy |
|                                       |                              |                                 | 2.4 - Biodiversity                              |
|                                       |                              |                                 | 2.5 - Climate strategy                          |
|                                       | 3 - Social                   | 2.9 - Risks related to water    |                                                 |
|                                       |                              | 3.3 - Human rights              |                                                 |
|                                       | Ethics and integrity         | 1 - Economic                    | 3.7 - Occupational health and safety            |
|                                       |                              |                                 | 1.4 - Codes of corporate conduct                |
|                                       | Governance                   | 1 - Economic                    | 1.1 - Corporate governance                      |
| 1.3 - Risk and crisis management      |                              |                                 |                                                 |
| 2 - Environmental                     |                              | 2.4 - Biodiversity              |                                                 |
| 3 - Social                            |                              | 3.2 - Labor practice indicators |                                                 |
|                                       | 3.8 - Stakeholder engagement |                                 |                                                 |
| Stakeholder engagement                | 1 - Economic                 | 1.2 - Materiality               |                                                 |
|                                       | 3 - Social                   | 3.2 - Labor practice indicators |                                                 |
|                                       |                              | 3.8 - Stakeholder engagement    |                                                 |
| Reporting practice                    | 1 - Economic                 | 1.2 - Materiality               |                                                 |
|                                       | 2 - Environmental            | 2.1 - Environmental report      |                                                 |
|                                       | 3 - Social                   | 3.1 - Social report             |                                                 |

| GRI Standards                                                                      |                                    | DJSI 2017                                       |                                                 |
|------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------|-------------------------------------------------|
|                                                                                    |                                    | Dimension                                       | Criterion                                       |
|   | GRI 201. Economic performance      | 1 - Economic                                    | 1.3 - Risk and crisis management                |
|                                                                                    |                                    | 2 - Environmental                               | 2.5 - Climate strategy                          |
|                                                                                    |                                    |                                                 | 2.9 - Risks related to water                    |
|                                                                                    | GRI 202. Market presence           | 3 - Social                                      | 3.2 - Labor practice indicators                 |
|                                                                                    | GRI 203. Indirect economic impacts | 2 - Environmental                               | 2.1 - Environmental report                      |
|                                                                                    |                                    | 3 - Social                                      | 3.1 - Social report                             |
|  | GRI 204. Procurement practices     |                                                 | 1.7 - Supply chain management                   |
|                                                                                    | GRI 205. Anti-corruption           | 1 - Economic                                    | 1.4 - Codes of corporate conduct                |
|                                                                                    | GRI 206. Anti-competitive behavior |                                                 | 1.4 - Codes of corporate conduct                |
|                                                                                    | GRI 302. Energy                    | 2 - Environmental                               | 2.3 - Operational eco-efficiency                |
|                                                                                    | GRI 303. Water                     |                                                 | 2.3 - Operational eco-efficiency                |
|                                                                                    |                                    |                                                 | 2.9 - Risks related to water                    |
|                                                                                    | GRI 304. Biodiversity              |                                                 | 2.4 - Biodiversity                              |
|                                                                                    |                                    |                                                 | 2.3 - Operational eco-efficiency                |
|                                                                                    | GRI 305. Emissions                 |                                                 | 2.5 - Climate strategy                          |
|                                                                                    |                                    |                                                 | 2.6 - Electricity generation                    |
|                                                                                    | GRI 306. Effluents and waste       |                                                 | 2.2 - Environmental management system or policy |
|                                                                                    |                                    | 2.3 - Operational eco-efficiency                |                                                 |
|                                                                                    | 2.9 - Risks related to water       |                                                 |                                                 |
| GRI 307. Environmental compliance                                                  |                                    | 2.2 - Environmental management system or policy |                                                 |
| GRI 308. Supplier environmental assessment                                         | 1 - Economic                       | 1.6 - Supply chain management                   |                                                 |
|                                                                                    | 2 - Environmental                  | 2.2 - Environmental management system or policy |                                                 |



| GRI Standards                         |                                         | DJSI 2017                                    |                                                           |                                 |
|---------------------------------------|-----------------------------------------|----------------------------------------------|-----------------------------------------------------------|---------------------------------|
|                                       |                                         | Dimension                                    | Criterion                                                 |                                 |
| GRI 401. Employment                   | GRI 403. Occupational health and safety | 3 - Social                                   | 3.4 - Human capital development                           |                                 |
|                                       |                                         |                                              | 3.5 - Talent attraction and retention                     |                                 |
|                                       |                                         |                                              | 3.7 - Occupational health and safety                      |                                 |
|                                       |                                         |                                              | 3.4 - Human capital development                           |                                 |
|                                       |                                         |                                              | 3.5 - Talent attraction and retention                     |                                 |
|                                       |                                         |                                              | 3.7 - Occupational health and safety                      |                                 |
|                                       |                                         | GRI 405. Diversity and equal opportunity     | 1 - Economic                                              | 1.1 - Corporate governance      |
|                                       |                                         |                                              | 3 - Social                                                | 3.2 - Labor practice indicators |
|                                       |                                         | GRI 406. Non-discrimination                  |                                                           | 3 - Social                      |
|                                       |                                         |                                              | GRI 407. Freedom of association and collective bargaining |                                 |
|                                       |                                         |                                              | GRI 408. Child labor                                      |                                 |
|                                       |                                         |                                              | GRI 409. Forced or compulsory labor                       |                                 |
| GRI 410. Security practices           |                                         |                                              |                                                           |                                 |
| GRI 411. Rights of indigenous peoples |                                         |                                              |                                                           |                                 |
| GRI 412. Human rights assessment      |                                         |                                              |                                                           |                                 |
| GRI 413. Local communities            | 2 - Environmental                       |                                              | 2.2 - Environmental management system or policy           |                                 |
|                                       |                                         | 2.4 - Biodiversity                           |                                                           |                                 |
|                                       |                                         | 2.8 - Risks related to water                 |                                                           |                                 |
|                                       | 3 - Social                              | 3.3 - Human rights                           |                                                           |                                 |
| GRI 414. Supplier social assessment   | 1 - Economic                            | 3.8 - Stakeholder engagement                 |                                                           |                                 |
|                                       |                                         | 1.7 - Supply chain management                |                                                           |                                 |
| GRI 418. Customer privacy             | 1 - Economic                            | 1.4 - Codes of corporate conduct             |                                                           |                                 |
|                                       |                                         | 1.8 - Information security and cybersecurity |                                                           |                                 |
| GRI 419. Socioeconomic compliance     | 1 - Economic                            | 1.4 - Codes of corporate conduct             |                                                           |                                 |





GRI - ISO 26000



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# GRI - ISO 26000

Alignment between the GRI Standards used in the Sustainability Report and the ISO 26000 Standard

| GRI Standard                                                                        | ISO 26000 Standard                                             |                           |                                           |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------|---------------------------|-------------------------------------------|
|                                                                                     | Key principles and core subjects of ISO 26000                  | ISO 26000 matters         |                                           |
|   | GRI 101. Reporting principles                                  | Accountability            | Accountability                            |
|                                                                                     | GRI 101. Using the GRI Standards for sustainability reporting  |                           |                                           |
|                                                                                     | GRI 101. Making claims related to the use of the GRI Standards |                           |                                           |
|  | GRI 102 - 1. Organizational profile                            | Human rights              | Fundamental principles and rights at work |
|                                                                                     |                                                                | Organizational governance | Organizational governance                 |
|                                                                                     |                                                                | Labor practices           | Conditions of work and social protection  |
|                                                                                     |                                                                |                           | Social dialogue                           |
|                                                                                     | Employment and employment relationships                        |                           |                                           |
|                                                                                     | GRI 102 - 2. Strategy                                          | Organizational governance | Organizational governance                 |
|                                                                                     | GRI 102 - 3. Ethics and integrity                              | Ethical behavior          | Ethical behavior                          |
|                                                                                     | GRI 102 - 4. Governance                                        | Organizational governance | Organizational governance                 |
| GRI 102 - 5. Stakeholder engagement                                                 |                                                                |                           |                                           |
| GRI 102 - 6. Reporting practice                                                     | Accountability                                                 | Accountability            |                                           |

|                                                                                     |                                                               | ISO 26000 Standard                            |                                            |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------|--------------------------------------------|
| GRI Standard                                                                        |                                                               | Key principles and core subjects of ISO 26000 | ISO 26000 matters                          |
|    | GRI 103-1. Explanation of the material topic and its boundary | Accountability                                | Accountability                             |
|                                                                                     | GRI 103-2. The management approach and its components         |                                               |                                            |
|                                                                                     | GRI 103-3. Evaluation of the management approach              |                                               |                                            |
|  | GRI 201. Economic performance                                 | The environment                               | Climate change mitigation and adaptation   |
|                                                                                     |                                                               | Community involvement and development         | Wealth and income creation                 |
|                                                                                     |                                                               |                                               | Social investment                          |
|                                                                                     | Community involvement and development                         |                                               |                                            |
|                                                                                     | GRI 203. Indirect economic impacts                            | Consumer issues                               | Access to essential services               |
|                                                                                     |                                                               | Human rights                                  | Economic, social and cultural rights       |
|                                                                                     |                                                               | Community involvement and development         | Employment creation and skills development |
|                                                                                     |                                                               |                                               | Technology development and access          |
|                                                                                     |                                                               |                                               | Education and culture                      |
|                                                                                     |                                                               |                                               | Wealth and income creation                 |
| Social investment                                                                   |                                                               |                                               |                                            |
| Community involvement and development                                               |                                                               |                                               |                                            |
| Fair operating practices                                                            | Promoting social responsibility in the value chain            |                                               |                                            |
|                                                                                     | Respect for property rights                                   |                                               |                                            |

| ISO 26000 Standard                                                                 |                                |                                                                                 |                                                                                 |
|------------------------------------------------------------------------------------|--------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| GRI Standard                                                                       |                                | Key principles and core subjects of ISO 26000                                   | ISO 26000 matters                                                               |
|   | GRI 204. Procurement practices | Community involvement and development                                           | Employment creation and skills development<br>Wealth and income creation        |
|                                                                                    | GRI 205. Anti-corruption       | Fair operating practices                                                        | Promoting social responsibility in the value chain<br>Anti-corruption           |
|  | GRI 301. Materials             | The environment                                                                 | Sustainable resource use                                                        |
|                                                                                    | GRI 302. Energy                | Fair operating practices                                                        | Sustainable resource use<br>Promoting social responsibility in the value chain  |
|                                                                                    | GRI 303. Water                 | The environment                                                                 | Sustainable resource use                                                        |
|                                                                                    | GRI 304. Biodiversity          |                                                                                 | Protection of the environment, biodiversity and restoration of natural habitats |
|                                                                                    | GRI 305. Emissions             |                                                                                 | Climate change mitigation and adaptation                                        |
|                                                                                    | GRI 306. Effluents and waste   |                                                                                 | Prevention of pollution                                                         |
|                                                                                    |                                | Protection of the environment, biodiversity and restoration of natural habitats |                                                                                 |
|                                                                                    |                                | Sustainable resource use                                                        |                                                                                 |






|                                                           |                                          | ISO 26000 Standard                            |                                                 |
|-----------------------------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------------|
| GRI Standard                                              |                                          | Key principles and core subjects of ISO 26000 | ISO 26000 matters                               |
|                                                           | GRI 401. Employment                      | Community involvement and development         | Technology development and access               |
|                                                           |                                          | Labor practices                               | Conditions of work and social protection        |
|                                                           |                                          |                                               | Occupational health and safety                  |
|                                                           | Employment and employment relationships  |                                               |                                                 |
|                                                           | GRI 403. Occupational health and safety  |                                               | Occupational health and safety                  |
|                                                           | GRI 404. Training and education          | Community involvement and development         | Employment creation and skills development      |
|                                                           |                                          | Labor practices                               | Human development and training in the workplace |
|                                                           | GRI 405. Diversity and equal opportunity | Human rights                                  | Discrimination and vulnerable groups            |
|                                                           |                                          |                                               | Fundamental principles and rights at work       |
|                                                           |                                          | Labor practices                               | Employment and employment relationships         |
| GRI 406. Non-discrimination                               | Human rights                             | Discrimination and vulnerable groups          |                                                 |
|                                                           |                                          | Fundamental principles and rights at work     |                                                 |
|                                                           |                                          | Resolving grievances                          |                                                 |
|                                                           |                                          | Avoidance of complicity                       |                                                 |
|                                                           |                                          | Due diligence                                 |                                                 |
|                                                           |                                          | Civil and political rights                    |                                                 |
|                                                           |                                          | Fundamental principles and rights at work     |                                                 |
| GRI 407. Freedom of association and collective bargaining |                                          | Human rights risk situations                  |                                                 |




| ISO 26000 Standard                                        |                                               |                                                    |
|-----------------------------------------------------------|-----------------------------------------------|----------------------------------------------------|
| GRI Standard                                              | Key principles and core subjects of ISO 26000 | ISO 26000 matters                                  |
| GRI 407. Freedom of association and collective bargaining | Labor practices                               | Social dialogue                                    |
|                                                           |                                               | Employment and employment relationships            |
| GRI 408. Child labor                                      | Human rights                                  | Avoidance of complicity                            |
|                                                           |                                               | Due diligence                                      |
|                                                           |                                               | Discrimination and vulnerable groups               |
|                                                           | Fair operating practices                      | Fundamental principles and rights at work          |
|                                                           |                                               | Human rights risk situations                       |
|                                                           |                                               | Promoting social responsibility in the value chain |
| GRI 409. Forced or compulsory labor                       | Human rights                                  | Avoidance of complicity                            |
|                                                           |                                               | Due diligence                                      |
|                                                           |                                               | Discrimination and vulnerable groups               |
|                                                           | Fair operating practices                      | Fundamental principles and rights at work          |
|                                                           |                                               | Human rights risk situations                       |
|                                                           |                                               | Promoting social responsibility in the value chain |
| GRI 410. Security practices                               | Human rights                                  | Avoidance of complicity                            |
|                                                           | Fair operating practices                      | Promoting social responsibility in the value chain |
|                                                           | Labor practices                               | Employment and employment relationships            |



|                                       |                                  | ISO 26000 Standard                            |                                                    |                                                                                 |
|---------------------------------------|----------------------------------|-----------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------|
| GRI Standard                          |                                  | Key principles and core subjects of ISO 26000 | ISO 26000 matters                                  |                                                                                 |
| GRI 411. Rights of indigenous peoples | Human rights                     | Civil and political rights                    | Discrimination and vulnerable groups               |                                                                                 |
|                                       |                                  | Resolving grievances                          |                                                    |                                                                                 |
|                                       | Fair operating practices         | Respect for property rights                   |                                                    |                                                                                 |
|                                       | GRI 412. Human rights assessment | Human rights                                  | Avoidance of complicity                            | Due diligence                                                                   |
|                                       |                                  |                                               | Human rights risk situations                       |                                                                                 |
|                                       |                                  | Fair operating practices                      | Promoting social responsibility in the value chain |                                                                                 |
|                                       | GRI 413. Local communities       | Human rights                                  | Economic, social and cultural rights               |                                                                                 |
|                                       |                                  | The environment                               | Prevention of pollution                            | Protection of the environment, biodiversity and restoration of natural habitats |
|                                       |                                  |                                               |                                                    |                                                                                 |
|                                       |                                  | Community involvement and development         | Employment creation and skills development         | Technology development and access                                               |
| Wealth and income creation            |                                  |                                               | Social investment                                  | Community involvement and development                                           |
| Community involvement and development |                                  |                                               |                                                    |                                                                                 |
| Health                                |                                  |                                               |                                                    |                                                                                 |

|                                                                                    |                                     | ISO 26000 Standard                            |                                                    |
|------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------|----------------------------------------------------|
| GRI Standard                                                                       |                                     | Key principles and core subjects of ISO 26000 | ISO 26000 matters                                  |
|  | GRI 414. Supplier social assessment | Human rights                                  | Avoidance of complicity                            |
|                                                                                    |                                     |                                               | Due diligence                                      |
|                                                                                    |                                     |                                               | Fundamental principles and rights at work          |
|                                                                                    |                                     | Community involvement and development         | Employment creation and skills development         |
|                                                                                    |                                     |                                               | Technology development and access                  |
|                                                                                    |                                     |                                               | Education and culture                              |
|                                                                                    | Wealth and income creation          |                                               |                                                    |
|                                                                                    | Fair operating practices            | Social investment                             |                                                    |
|                                                                                    |                                     | Community involvement and development         |                                                    |
|                                                                                    | GRI 416. Customer health and safety | Human rights                                  | Health                                             |
|                                                                                    |                                     |                                               | Promoting social responsibility in the value chain |
|                                                                                    |                                     |                                               | Conditions of work and social protection           |
| Human development and training in the workplace                                    |                                     |                                               |                                                    |
| Sustainable consumption                                                            |                                     |                                               |                                                    |
| Labor practices                                                                    | Consumer issues                     | Social dialogue                               |                                                    |
|                                                                                    |                                     | Occupational health and safety                |                                                    |
|                                                                                    |                                     | Employment and employment relationships       |                                                    |
|                                                                                    |                                     | Protecting consumers' health and safety       |                                                    |
|                                                                                    |                                     |                                               | Economic, social and cultural rights               |

|                                                                                    |                                         | ISO 26000 Standard                                              |                                                                          |
|------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------|
| GRI Standard                                                                       |                                         | Key principles and core subjects of ISO 26000                   | ISO 26000 matters                                                        |
|  | GRI 416. Customer health and safety     | Community involvement and development                           | Education and culture<br>Community involvement and development<br>Health |
|                                                                                    |                                         | Fair operating practices                                        | Promoting social responsibility in the value chain                       |
|                                                                                    |                                         | Labor practices                                                 | Occupational health and safety                                           |
|                                                                                    |                                         | GRI 417. Marketing and labeling                                 | Consumer issues                                                          |
|                                                                                    | Fair marketing                          |                                                                 |                                                                          |
|                                                                                    | Protecting consumers' health and safety |                                                                 |                                                                          |
|                                                                                    | GRI 418. Customer privacy               | Consumer service, support, and complaint and dispute resolution |                                                                          |
|                                                                                    | GRI 419. Socioeconomic compliance       | Access to essential services                                    |                                                                          |
|                                                                                    |                                         | Education and awareness                                         |                                                                          |
|                                                                                    |                                         | Fair marketing                                                  |                                                                          |
|                                                                                    |                                         | Consumer data protection and privacy                            |                                                                          |
|                                                                                    |                                         | Consumer service, support, and complaint and dispute resolution |                                                                          |
|                                                                                    | Community involvement and development   | Wealth and income creation                                      |                                                                          |
|                                                                                    | Fair operating practices                | Respect for property rights                                     |                                                                          |



**Sustainable**  
Development Goals

Grupo·epm®



# Sustainable Development Goals

In September 2015, world leaders adopted the ambitious 2030 Agenda for Sustainable Development, focused on 17 goals as a shared goal to transform the world in 15 years and, basically, foster a decent life for everyone.<sup>1</sup>

“Architects of a Better World” recognizes the importance of the companies for this purpose and proposes the merger of corporate sustainability with effective contribution to sustainable development as a leverage to create value for businesses and society.

Grupo EPM’s planning is aligned with this global framework based on its business purpose; its BHAG—that includes universalization and care for the environment through the commitments to water protection and neutral carbon operation for 2025—; and its activities related to water, sanitation, and energy.

This section of the report shows, among others, the actions related to the Sustainable Development Goals (SDGs) 6 and 7, core actions of Grupo EPM purpose.

The SDG 6 addresses facing the challenges related to drinking water, sanitation, and cleanliness for the population, as well as ecosystems concerning water. Sustainable water resources and quality sanitation accelerate progress in many other areas of the SDGs, including health, teaching, and poverty reduction.

The SDG 7 aims at universal access to affordable, reliable, and sustainable energy services. Its purpose is to expand access to electric energy, clean fuels, and more efficient technologies to cook, as well as improve energy efficiency and increase the use of renewable energies. To reach this goal, greater financing and more audacious regulations will be required, as well as the will of the countries to accept new technologies at a much more ambitious scale.

As part of the 2030 Agenda purpose of not letting anyone behind, the universal and sustainable provision of public utilities of water, sanitation, and energy is paramount.

<sup>1</sup> United Nations, *Sustainable Development Goals Report, 2017*.

Available at: <https://unstats.un.org/sdgs/files/report/2017/TheSustainableDevelopmentGoalsReport2017.pdf>  
accessed on March 13, 2018.



## Sustainable Development Goals



2015

2016

2017

|                                                                                    |                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <p><b>Launching of the SDGs, September 15.</b><br/>UN General Assembly.</p> <p><b>SDG Compass Implementation Guideline.</b><br/>GRI, Global Compact, WBCSD.</p> <p><b>Third International Conference on Financing for Development.</b><br/>Addis Abeba, UN General Assembly.</p> | <p><b>First UN SDGs' report.</b><br/>It sets benchmarks for the actions of the sustainable development agenda for the next 15 years.</p>                                                                                                                                                                                                                                  | <p><b>Second UN SDGs' report.</b><br/>Progress is unequal in the different regions, among genders, and among people from different ages, strata, and locations. To accomplish the audacious vision of the 2030 Agenda, progress must be faster and more inclusive.</p> |
|  | <p><b>It adopts SDGs</b> as a reference agenda for global development.</p> <p><b>It connects SDGs with material topics.</b><br/>Local action aligned with global development goals.</p>                                                                                          | <p><b>It identifies priority goals of SDGs for Grupo EPM.</b><br/>Included in the SDGs highlighted in the image above.</p> <p><b>It associates SDGs with initiatives and the Balanced Scorecard of the Group's Business Plan.</b></p> <p><b>It strengthens the 2017-2020 Business Plan.</b><br/>It applies SDGs as driving forces of the material topics' challenges.</p> | <p><b>It strengthens connections between material topics of Grupo EPM and SDGs.</b><br/>The identification of emphases or aspects of specific material topics in the territories helps specifying the connection with the SDGs to act more accordingly.</p>            |



## Alignment between material topics and SDGs

| Material topic                                                                                                                            |                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Access to and purchasability of public utilities</p> |    <br> |
|  <p>Biodiversity</p>                                     |                                                                                          |
|  <p>Quality of working environment</p>                  |                                                                                                                                                                                                                                                                                                                                               |
|  <p>Quality and safety of products and services</p>    |                                                                                                                                                                                                                                                           |
|  <p>Responsible procurement for local development</p>  |                                                                                                                                                                                                                                                           |
|  <p>Water care</p>                                     |                                                                                  |

| Material topic                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Respect and promotion of human rights</p>                         |                                                                                             |
|  <p>Diversification of renewable energies</p>                         |                                                                                                                                                                                |
|  <p>Climate strategy</p>                                              |                                                                                                                                                                                                                                                                  |
|  <p>Unserviced population</p>                                       |      |
|  <p>Fees and prices</p>                                             |                                                                                                                                                                          |
|  <p>Transparency and disclosure of information for stakeholders</p> |                                                                                                                                                                                                                                                                                                                                                 |
| <p align="center"><b>17 partnerships for the goals</b></p>        |                                                                                                                                                                                                                                                                                                                                                                                                                                    |



**Balanced**  
Scorecard's  
strategic objectives

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## Balanced Scorecard's strategic objectives

| Alignment between material topics and Balanced Scorecard's strategic objectives |                                 |                             |                                                  |                           |                                                                                     |                    |                               |                                                              |                                                                               |                                                                                          |                              |                                                  |
|---------------------------------------------------------------------------------|---------------------------------|-----------------------------|--------------------------------------------------|---------------------------|-------------------------------------------------------------------------------------|--------------------|-------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------|--------------------------------------------------|
| Material topics                                                                 | Value creation                  | Customers and markets       |                                                  | Operations                |                                                                                     |                    | Learning and development      |                                                              |                                                                               |                                                                                          |                              |                                                  |
|                                                                                 | Increase value for stakeholders | Grow in markets and sectors | Strengthen engagement with external stakeholders | Optimize asset management | Provide a comprehensive service to customers with solutions adjusted to their needs | Optimize processes | Strengthen project management | Develop organizational capabilities required by the strategy | Optimize and consolidate information systems for decision-making in the group | Strengthen the comprehensive development of human talent and target culture of the group | Strengthen governance models | Strengthen management with internal stakeholders |
| Access to and purchasability of public utilities                                | ✓                               | ✓                           | ✓                                                |                           | ✓                                                                                   |                    |                               |                                                              |                                                                               |                                                                                          |                              |                                                  |
| Biodiversity                                                                    | ✓                               |                             |                                                  |                           |                                                                                     | ✓                  |                               |                                                              |                                                                               |                                                                                          |                              |                                                  |
| Quality of working environment                                                  | ✓                               |                             | ✓                                                |                           |                                                                                     |                    |                               |                                                              |                                                                               | ✓                                                                                        |                              | ✓                                                |
| Quality and safety of products and services                                     | ✓                               |                             | ✓                                                |                           | ✓                                                                                   | ✓                  | ✓                             |                                                              |                                                                               |                                                                                          |                              |                                                  |
| Responsible procurement for local development                                   | ✓                               |                             | ✓                                                |                           |                                                                                     | ✓                  | ✓                             |                                                              |                                                                               |                                                                                          |                              |                                                  |
| Water care                                                                      | ✓                               |                             |                                                  |                           |                                                                                     | ✓                  |                               |                                                              |                                                                               |                                                                                          |                              |                                                  |
| Respect and promotion of human rights                                           | ✓                               |                             | ✓                                                |                           |                                                                                     | ✓                  | ✓                             |                                                              |                                                                               |                                                                                          |                              |                                                  |
| Diversification of renewable energies                                           | ✓                               | ✓                           |                                                  |                           | ✓                                                                                   | ✓                  |                               |                                                              |                                                                               |                                                                                          |                              |                                                  |
| Climate strategy                                                                | ✓                               |                             |                                                  |                           |                                                                                     | ✓                  |                               |                                                              |                                                                               |                                                                                          |                              |                                                  |
| Unserved population                                                             | ✓                               |                             | ✓                                                |                           | ✓                                                                                   |                    |                               |                                                              |                                                                               |                                                                                          |                              |                                                  |
| Fees and prices                                                                 | ✓                               | ✓                           | ✓                                                | ✓                         | ✓                                                                                   |                    |                               |                                                              |                                                                               |                                                                                          |                              |                                                  |
| Transparency and disclosure of information for the stakeholders                 | ✓                               | ✓                           | ✓                                                |                           |                                                                                     |                    |                               |                                                              |                                                                               | ✓                                                                                        |                              | ✓                                                |



**Global Compact**

**Grupo·epm®**





## Alignment between complementary aspects and the Global Compact's principles

### Global Compact's principles

| Complementary aspects                           | Human rights                 |                                            | Labor standards                                       |                                                 |                               |                         | Environment                               |                                                |                                                         | Anti-corruption                                        |
|-------------------------------------------------|------------------------------|--------------------------------------------|-------------------------------------------------------|-------------------------------------------------|-------------------------------|-------------------------|-------------------------------------------|------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------|
|                                                 | 01 - Human rights protection | 02 - Non-complicity in human rights abuses | 03 - Freedom of association and collective bargaining | 04 - Elimination of forced and compulsory labor | 05 - Abolition of child labor | 06 - Non-discrimination | 07 - Prevention of environmental problems | 08 - Promotion of environmental responsibility | 09 - Promotion of environmentally friendly technologies | 10 - Working against corruption, extortion and bribery |
| Corporate citizenship                           | ✓                            | ✓                                          |                                                       |                                                 | ✓                             |                         | ✓                                         | ✓                                              | ✓                                                       |                                                        |
| Development and innovation                      |                              |                                            |                                                       |                                                 |                               |                         | ✓                                         | ✓                                              | ✓                                                       |                                                        |
| Working environment                             | ✓                            | ✓                                          | ✓                                                     | ✓                                               | ✓                             | ✓                       |                                           |                                                |                                                         | ✓                                                      |
| Social and environmental management in projects | ✓                            | ✓                                          |                                                       |                                                 | ✓                             |                         | ✓                                         | ✓                                              | ✓                                                       |                                                        |
| Sustainable production and consumption          |                              |                                            |                                                       |                                                 |                               |                         | ✓                                         | ✓                                              | ✓                                                       |                                                        |



**International  
Integrated  
Reporting Council**

**Grupo·epm®**





# International Integrated Reporting Council

## Alignment between the IIRC's Integrated Report and the 2017 Sustainability Report

| Integrated Report content                                   | Location in the Sustainability Report                           |
|-------------------------------------------------------------|-----------------------------------------------------------------|
| <b>Organizational overview and its external environment</b> | About us                                                        |
|                                                             | Our organization                                                |
|                                                             | Personnel                                                       |
|                                                             | Labor unions                                                    |
|                                                             | Control environment                                             |
|                                                             | Growth                                                          |
|                                                             | Stakeholders                                                    |
|                                                             | Our supply chain                                                |
|                                                             | Report profile                                                  |
| <b>Corporate governance</b>                                 | Corporate governance report                                     |
| <b>Business model</b>                                       | About us                                                        |
|                                                             | Our story                                                       |
|                                                             | Corporate strategic planning                                    |
|                                                             | Competitive strategic planning                                  |
|                                                             | Macro-trends                                                    |
| <b>Risks and opportunities</b>                              | Challenges                                                      |
|                                                             | Corporate strategic planning                                    |
|                                                             | Competitive strategic planning                                  |
|                                                             | Comprehensive risk management                                   |
| <b>Strategy and resource allocation</b>                     | Management report                                               |
| <b>Performance</b>                                          | Access to and purchasability of public utilities                |
|                                                             | Biodiversity                                                    |
|                                                             | Quality of working environment                                  |
|                                                             | Quality and safety of products and services                     |
|                                                             | Responsible procurement for local development                   |
|                                                             | Water care                                                      |
|                                                             | Respect and promotion of human rights                           |
|                                                             | Diversification of renewable energies                           |
|                                                             | Climate strategy                                                |
|                                                             | Unserved population                                             |
|                                                             | Fees and prices                                                 |
|                                                             | Transparency and disclosure of information for the stakeholders |

## Alignment between the IIRC's Integrated Report and the 2017 Sustainability Report

| Integrated Report content                    | Location in the Sustainability Report           |
|----------------------------------------------|-------------------------------------------------|
| <b>Performance</b>                           | Corporate citizenship                           |
|                                              | Development and innovation                      |
|                                              | Working environment                             |
|                                              | Social and environmental management in projects |
|                                              | Sustainable production and consumption          |
|                                              | Financial management                            |
| <b>Outlook</b>                               | Challenges                                      |
|                                              | Corporate strategic planning                    |
|                                              | Competitive strategic planning                  |
|                                              | Macro-trends                                    |
| <b>Basis of preparation and presentation</b> | Material aspects and coverage                   |

## IIRC's Integrated Report principles

## Location in the Sustainability Report

|                                               |                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Strategic focus and future orientation</b> | Our challenges                                                                                                                                                                                                                                                                                                      |
| <b>Connectivity of information</b>            | Alignment between the capitals of IIRC's Integrated Report and the material topics                                                                                                                                                                                                                                  |
| <b>Stakeholder relationships</b>              | Our stakeholders                                                                                                                                                                                                                                                                                                    |
| <b>Materiality</b>                            | Report profile                                                                                                                                                                                                                                                                                                      |
|                                               | Material aspects and coverage                                                                                                                                                                                                                                                                                       |
| <b>Conciseness</b>                            | The process of preparing this report is led by EPM's Sustainable Development Management. This management unit sets the guidelines to identify information that will be included. Identifying material topics and complementary matters ensures that the report targets the more relevant aspects of the management. |
|                                               | The web report enables navigating and creating links between the different topics presented, reducing the possibility of duplication of information.                                                                                                                                                                |
| <b>Reliability and completeness</b>           | The process of preparing the report takes into account the voices of people who are part of the groups' businesses, companies, and units. This increases reliability and traceability of the information reported.<br>See also: External assurance                                                                  |
|                                               | Alignment with sustainability initiatives                                                                                                                                                                                                                                                                           |
| <b>Consistency and comparability</b>          | Material aspects and coverage                                                                                                                                                                                                                                                                                       |

## Alignment between the capitals of IIRC's Integrated Report and the material topics

| Material topics                                                 | Capitals |       |        |              |           |              |
|-----------------------------------------------------------------|----------|-------|--------|--------------|-----------|--------------|
|                                                                 | Natural  | Human | Social | Intellectual | Financial | Manufactured |
| Access to and purchasability of public utilities                |          |       | ✓      |              | ✓         | ✓            |
| Biodiversity                                                    | ✓        |       |        |              |           |              |
| Quality of working environment                                  |          | ✓     |        |              |           |              |
| Quality and safety of products and services                     |          |       | ✓      |              |           | ✓            |
| Responsible procurement for local development                   |          | ✓     | ✓      |              |           | ✓            |
| Water care                                                      | ✓        |       |        |              |           |              |
| Respect and promotion of human rights                           |          |       | ✓      |              |           |              |
| Diversification of renewable energies                           | ✓        |       |        | ✓            |           |              |
| Climate strategy                                                | ✓        |       |        |              |           |              |
| Unserved population                                             |          |       | ✓      |              |           |              |
| Fees and prices                                                 |          |       | ✓      |              | ✓         |              |
| Transparency and disclosure of information for the stakeholders |          | ✓     | ✓      |              |           |              |

| Capitals            | Meaning                                                                                                                                                                                                                        |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Natural</b>      | All renewable and nonrenewable environmental resources and processes that provide goods and services and that sustain the past, present or future prosperity of an organization.                                               |
| <b>Human</b>        | Skills, abilities and experience of the people and their motivations to innovate.                                                                                                                                              |
| <b>Social</b>       | Institutions and relationships within and between communities, stakeholders and other networks. The ability to share information to improve individual and collective well-being.                                              |
| <b>Intellectual</b> | Intangibles based on knowledge of the organization.                                                                                                                                                                            |
| <b>Financial</b>    | The set of available funds in the organizations to be used in the production of goods or the provision of services obtained through financing, such as debt, equity or grants, or generated through operations or investments. |
| <b>Manufactured</b> | Manufactured physical objects that are available to an organization to be used in the production of goods or provision of services.                                                                                            |



**Review by**  
Management and  
self-assessment

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## Review by Management and self-assessment

### Review by Management and self-assessment

| PDCA cycle | Information for the institutional self-assessment | Information to be reviewed by management, according to NTCGP 1000 | Company's language                                | Correlation with the 2017 Sustainability Report                                         |
|------------|---------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------|
| Plan       | Not applicable.                                   | Changes that could affect the quality management system.          | Changes in the strategic planning.                | Challenges<br>Corporate strategic planning<br>Competitive strategic planning            |
|            |                                                   |                                                                   | Changes in business plans and corporate services. | Macro-trends<br>Challenges<br>Growth<br>Corporate governance                            |
|            |                                                   |                                                                   | Changes in regulations.                           | Sanitation rates<br>Water supply and sewerage rates *<br>Electricity rates<br>Gas rates |
|            |                                                   |                                                                   | Changes in processes.                             | Business development projects                                                           |
|            |                                                   |                                                                   | Changes in the organizational structure.          | Conclusion of the status of the quality management system                               |
|            |                                                   |                                                                   | Changes in information technologies.              | Transparency practices                                                                  |
|            |                                                   |                                                                   | Business projects.                                | Business development projects<br>Infrastructure projects                                |

**Review by Management and self-assessment**

| PDCA cycle | Information for the institutional self-assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Information to be reviewed by management, according to NTCGP 1000 | Company's language                                                                                                                      | Correlation with the 2017 Sustainability Report                                                                                                                                                                                                                                                                                |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Do         | Not applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Customer feedback.                                                | <p>Customer satisfaction survey results.</p> <p>Complaints and claims (products, services).</p> <p>Communication with stakeholders.</p> | <p>Customer satisfaction</p> <p>Reliability in the provision of the service</p> <p>Customer service</p> <p>Information for stakeholders</p> <p>Education for and communication with customers, users and the community</p> <p>Stakeholder engagement</p> <p>Supplier strengthening and development</p> <p>Grupo EPM people</p> |
|            | <p><b>Control and management self-assessment:</b> Self-assessment includes the required monitoring of the operations of the company through measuring the results generated in each process, procedure, project, plan, or program, considering risk management.</p> <p>It seeks to determine the effectiveness of internal controls. This focus on its evolution includes risks associated with processes and is internationally known as Risk and Control Self-Assessment (RCSA.) This means that the processes of self-assessment can include risk and control analysis, which are vital elements for the effective development of processes. The Institute of Internal Auditors (IIA) states that control self-assessment is a process that examines and evaluates the effectiveness of internal control. The main goal is to provide reasonable assurance that the objectives of the organization will be met.</p> | Not applicable.                                                   | Risk management.                                                                                                                        | <p>Comprehensive risk management</p> <p>Definitions of the group's control environment</p>                                                                                                                                                                                                                                     |

**Review by Management and self-assessment**

**PDCA cycle**

**Information for the institutional self-assessment**

**Information to be reviewed by management, according to NTCGP 1000**

**Company's language**

**Correlation with the 2017 Sustainability Report**

**Check**

Design and implementation of verification mechanisms to determine the efficiency and efficacy of controls, the achievement of results for each process, and the good performance of the staff involved in the execution of operations.

Audit outcome.

Results of internal audits to EPM QMS, according to NTCGP 1000, and to certified and accredited QMS.

Internal audit outcome

Results of independent audits to QMS NTCGP 1000 (audits based on international regulations).

Definitions of the group's control environment

It allows people responsible for a process, program, or project and their staff to measure the effectiveness of their controls and the management results in real time, verifying their ability to meet their goals and results, and to take corrective actions when necessary for the fulfillment of the objectives set by the company.

Outcome of objectives and quality policy.

Follow-up of the strategic planning through the strategic objectives - BSC.

Corporate strategic planning  
Competitive strategic planning

**Control and management self-assessment:**

Self-assessment includes the required monitoring of the operations of the company through measuring the results generated in each process, procedure, project, plan, or program, considering the management indicators. The verification and evaluation mechanisms allow the company to assess itself by providing the information required to determine whether it works effectively or whether there are deviations in its operation that affect the purpose for which it was created.

Process performance and service compliance.

Process indicators and product or service continuity.

Corporate strategic planning  
Financial results  
Quality and continuity of service  
Reliability in the provision of the service

Responsible procurement for local development



## Review by Management and self-assessment

| PDCA cycle | Information for the institutional self-assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Information to be reviewed by management, according to NTCGP 1000                                             | Company's language                                                | Correlation with the 2017 Sustainability Report |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------|
| Check      | Not applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Compliance with the quality policy.                                                                           | Review of the comprehensive management policy.                    | Analysis of the quality management policy       |
|            | <b>Control and management self-assessment:</b><br>Self-assessment includes the required monitoring of the operations of the company through measuring the results generated in each process, procedure, project, plan, or program, considering the management indicators. The verification and evaluation mechanisms allow the company to assess itself by providing the information required to determine whether it works effectively or whether there are deviations in its operation that affect the purpose for which it was created. | Not applicable.                                                                                               | Follow-up of individual performance - Human resources management. | Employee performance                            |
|            | <b>Control and management self-assessment:</b> Self-assessment includes the required monitoring of the operations of the company through measuring the results generated in each process, procedure, project, plan, or program, considering the management plans. It seeks to determine the effectiveness of internal controls in order to implement the necessary improvement actions.                                                                                                                                                    | Status of the corrective and preventive actions. / Follow-up actions based on previous reviews by Management. | Improvement programs.                                             | Improvement programs                            |
| Act        | Self-assessment becomes a regular process.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Yearly, in the Sustainability Report.                                                                         |                                                                   |                                                 |
|            | It involves the staff members who manage or coordinate the processes, programs or projects, depending on their degree of responsibility and their authority in the operation.                                                                                                                                                                                                                                                                                                                                                              | Staff members in charge of processes, process experts, project leaders, and indicator managers, among others. |                                                                   |                                                 |



**Stakeholders**



**Grupo·epm®**





# Identification of stakeholders



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# Identification of stakeholders

For identifying stakeholders at Grupo EPM, three criteria from the **Disclosure 102-42** are considered:

- **Legitimacy** of the stakeholder group is evaluated in the context of the desirable, own, or suitable actions within the system of standards, values, beliefs, and definitions of the society. In operational terms, the legitimacy level is estimated based on the existence of regulations, contracts, and agreements, regarding the topics that link it to the organization.
- **Power** is evaluated in terms of coercive power (force or weapons); utilitarian power (direct or indirect, such as the power of information and knowledge); and symbolic power (relations, political support, social and cultural recognition.)
- **Urgency** or dependency is assessed in terms of the criticality of the urgency (extent of the dependency or the response demand it has over the organization), and the promptness required to respond to the urgency.

Stakeholder groups identified by EPM based on the criteria of the **Disclosure 102-40** are listed below:

- Customers and users
- Colleagues
- Community
- Owner
- State
- Grupo EPM people
- Investors
- Suppliers and contractors
- Partners

Stakeholders are groups of people or entities that impact or are highly impacted by Grupo EPM and have relatively stable and common interests with it. In technical terms, stakeholders are social groups with a high level of legitimacy, power, and urgency, that have a certain homogeneity and stability in their interests with regard to Grupo EPM.

The priority topics for the sustainability of Grupo EPM and its stakeholders are detailed on material topics.

For Grupo EPM, stakeholders are social groups with a high level of legitimacy, power, and urgency, that have a certain homogeneity and stability in their interests with regard to Grupo EPM.



**Our**  
Stakeholders



**Grupo·epm<sup>®</sup>**



# Customers and users

## Composition

People, companies, and other organizations with which a relationship has been established from the provision of public utilities. For the purposes of the business relationship, in particular billing, the organization associates an installation number with the address of the property where customers and users make the consumption.

| Installations by Grupo EPM |           |           |           |
|----------------------------|-----------|-----------|-----------|
| Service                    | 2015      | 2016      | 2017      |
| Energy                     | 5,966,851 | 6,166,154 | 6,367,752 |
| Gas                        | 997,446   | 1,065,705 | 1,132,329 |
| Water                      | 1,378,365 | 1,429,195 | 1,477,534 |
| Sewerage                   | 1,321,090 | 1,379,292 | 1,419,400 |
| Sanitation                 | 743,391   | 767,687   | 789,334   |

**Source:** Commercial Vice Presidency

- This table quantifies the facilities provided with public utilities.
- Data reported for the sanitation service were adjusted for each year considering the calculation criterion of Emvarias.

Ticsa indirectly serves 1,374,840 customers through the operation of eight wastewater treatment plants.

| Installations by EPM |           |           |           |
|----------------------|-----------|-----------|-----------|
| Service              | 2015      | 2016      | 2017      |
| Energy               | 2,221,477 | 2,291,716 | 2,368,457 |
| Gas                  | 997,446   | 1,065,705 | 1,132,329 |
| Water                | 1,105,003 | 1,145,313 | 1,186,434 |
| Sewerage             | 1,072,886 | 1,120,945 | 1,153,683 |

**Source:** Commercial Vice Presidency

This table quantifies the facilities provided with public utilities.

## Engagement goal

Facilitate access to and use of public utilities by promoting joint actions with different legitimate actors, in order to impact the sustainable human development in the territories where Grupo EPM is present or is planning to be present.

## Leader of the engagement plan

Directorate of Relationship Marketing, Commercial Vice Presidency

## GRI Standards and EPM indicators

**102-44** Key topics and concerns raised.

**201-1** Direct economic value generated and distributed

# Colleagues

## Composition

It consists of guilds, associations, companies engaged in the provision of residential public utilities, and other entities that deal with, share, and exchange experiences and information of common interest in terms of development and sustainability and relevant to the sector.

## Engagement goal

Formulate and develop a coordinated strategy of sustainability for the economic, social, and environmental contexts, through which a responsible behavior by the public utilities industry is promoted as part of a collaborative relationship with the members.

## Leader of the engagement plan

External Relationships Management.

## GRI Standards and EPM indicators

**102-44** Key topics and concerns raised.

# Community

## Composition

People located in the areas where Grupo EPM's companies are present through their projects and operations.

## Engagement goal

Define multidirectional commitments among the community, the state authorities, and other legitimate actors in the territories where Grupo EPM's companies are present, in order to co-manage permanent dynamics relevant to the society and the environment, which might be translated into equity and a better quality of life for people, all within the framework of the groups' policies and plans.

## Leader of the engagement plan

Customers and Community Training Unit.

Co-leaders: External Relationships Management, Environmental and Social Management of Projects and Engineering , Directorate of Energy Generation Planning.

| Value distributed by EPM to the community |                         |                         |
|-------------------------------------------|-------------------------|-------------------------|
| 2015                                      | 2016                    | 2017                    |
| COP 169.37 billion (3%)                   | COP 125.03 billion (3%) | COP 134.44 billion (2%) |

The value distributed was taken from the financial statements by stakeholder, prepared in accordance with the Fourth Financial Statement methodology by Luis Perera Aldama.

## GRI Standards and EPM indicators

**102-44** Key topics and concerns raised.

**201-1** Direct economic value generated and distributed



# Owner

## Composition

It refers to the owner of EPM, that is, the Municipality of Medellín (Municipal Mayor's Office and Medellín Council) and its Board of Directors.

## Engagement goal

Strengthen, in the Corporate Governance Model, the commitment of the Municipal Administration to excellence in the management of EPM and its autonomy in a stable and continuous way, conditioned to the effective implementation of EPM's Corporate Responsibility Model, on an ethical and non-paternalistic basis, aiming at an environmental, social, and economic sustainability.

## Leader of the engagement plan

Corporate Governance Unit

| Value distributed by EPM to the owner |                          |                            |
|---------------------------------------|--------------------------|----------------------------|
| 2015                                  | 2016                     | 2017                       |
| COP 991.14 billion (17%)              | COP 816.52 billion (16%) | COP 1,309.13 billion (22%) |

The value distributed was taken from the financial statements by stakeholder, prepared in accordance with the Fourth Financial Statement methodology by Luis Perera Aldama.

## GRI Standards and EPM indicators

- 102-44** Key topics and concerns raised.
- 201-1** Direct economic value generated and distributed

# State

## Composition

National, departmental, and municipal entities that are part of the government executive, legislative, and judicial branches, as well as state agencies from other countries and supranational organizations.

## Engagement goal

Promote inter-institutional coordination with the state for the regional development, regarding economic, social, and environmental sustainability of Grupo EPM, acting in a transparent and close way and without giving rise to actions that supplant the responsibility of state institutions.

## Leader of the engagement plan

External Relationships Management.

| Value distributed by EPM to the state |                          |                          |
|---------------------------------------|--------------------------|--------------------------|
| 2015                                  | 2016                     | 2017                     |
| COP 435.71 billion (7%)               | COP 702.84 billion (14%) | COP 640,07 billion (11%) |

The value distributed was taken from the financial statements by stakeholder, prepared in accordance with the Fourth Financial Statement methodology by Luis Perera Aldama.

## GRI Standards and EPM indicators

- 102-44** Key topics and concerns raised.
- 201-1** Direct economic value generated and distributed

# Grupo EPM people

## Composition

Grupo EPM's employees, beneficiaries, retirees, pensioners, trainees from the National Training Service (SENA), and interns.

| Grupo EPM people              | 2015          | 2016          | 2017          |
|-------------------------------|---------------|---------------|---------------|
| Executive staff               | 590           | 580           | 607           |
| Professional staff            | 3,944         | 4,252         | 4,767         |
| Non-professional staff        | 6,792         | 6,876         | 7,881         |
| <b>Total employees</b>        | <b>11,326</b> | <b>11,708</b> | <b>13,255</b> |
| Beneficiaries                 | 10,818        | 11,116        | 11,912        |
| Retirees <sup>1</sup>         | 3,815         | 3,393         | 3,293         |
| Trainees and interns          | 592           | 487           | 616           |
| <b>Total Grupo EPM people</b> | <b>26,551</b> | <b>26,704</b> | <b>29,076</b> |

<sup>1</sup> No data regarding pensioners through pension funds and social insurance.

| EPM people              | 2015          | 2016          | 2017          |
|-------------------------|---------------|---------------|---------------|
| Executive staff         | 231           | 213           | 226           |
| Professional staff      | 2,296         | 2,486         | 2,878         |
| Non-professional staff  | 3,464         | 3,582         | 4,182         |
| <b>Total employees</b>  | <b>5,991</b>  | <b>6,281</b>  | <b>7,286</b>  |
| Beneficiaries           | 10,818        | 11,116        | 11,912        |
| Retirees <sup>1</sup>   | 2,313         | 2,243         | 2,193         |
| Trainees and interns    | 306           | 363           | 345           |
| <b>Total EPM people</b> | <b>19,428</b> | <b>20,003</b> | <b>21,736</b> |

<sup>1</sup> No data regarding pensioners through pension funds and social insurance.

## Engagement goal

Strengthen the relationship between the Grupo EPM people and the organization, in order to improve confidence and enhance the sustainable human development of stakeholders, thus achieving v with corporate goals.

## Leader of the engagement plan

Directorate of Human Resource Development

| Value distributed in EPM people |                          |                          |
|---------------------------------|--------------------------|--------------------------|
| 2015                            | 2016                     | 2017                     |
| COP 580 billion (10%)           | COP 628.76 billion (13%) | COP 726.54 billion (12%) |

The value distributed was taken from the financial statements by stakeholder, prepared in accordance with the Fourth Financial Statement methodology by Luis Perera Aldama.

## GRI Standards and EPM indicators

**102-44** Key topics and concerns raised.

**201-1** Direct economic value generated and distributed

# Investors

## Composition

This group comprises agents who are determinant for the provision of long-term financial resources to Grupo EPM. They act directly or indirectly in the capital market and do not share ownership in EPM or its affiliated companies. They include local and international bondholders, long-term funding providers, facilitators, and governmental entities.

## Engagement goal

Consolidate trustworthy relationships with the investors and other local and international actors of the securities market, in order to ensure the corporate purpose.

## Leader of the engagement plan

Directorate of Capital Management

## Main achievements of the engagement plan

| Goals for 2017                                                                                                                  | Achievements in 2017                                                                                                                                                                                                                                                                                                                          | Accomplishment |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Hold the 11th annual event for investors of Grupo EPM.                                                                          | The annual event was held on April 19 in Bogotá. It counted on the participation of the most representative actors of the securities market. The management, performance, and achievements of the business group during the previous year, as well as the expectations and challenges for the current year were highlighted during the event. | Total          |
| Perform videoconferences to report quarterly financial results.                                                                 | The four quarterly results teleconferences were conducted (in Spanish and English) for national and international investors.                                                                                                                                                                                                                  | Total          |
| Participate in annual events of international capital markets, such as non-deal roadshows, organized by the commercial banking. | The company participated in three international events held in the United States during the second and third trimesters of the year. During these events, it was possible to introduce and update information about the main topics of the business group that are of interest to investors.                                                  | Total          |
| Keep both versions of the investor's website updated and improve navigation to facilitate access to content.                    | Both versions of the website were updated throughout the year.                                                                                                                                                                                                                                                                                | Total          |

| Goals for 2017                                                                                                                                                                                                                                                               | Achievements in 2017                                                             | Accomplishment |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------|
| Additional achievement not included in the engagement plan: Comply with the requirements of the Colombian Stock Exchange.                                                                                                                                                    | IR Recognition awarded by the Colombian Stock Exchange for the 2017-2018 period. | Total          |
| Additional achievement not included in the engagement plan: Roadshow in the United States, Europe, Chile, Peru, and Colombia, as part of the successful placement of bonds in the international capital market amounting to COP 2.3 trillion, performed on October 31, 2017. | Meetings were held with 49 institutional investors.                              | Total          |

## Challenges

| Challenge                                                                                                                       | Year in which it is achieved | Achievement indicator                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hold the 12th annual event for investors of Grupo EPM.                                                                          | 2018                         | The annual event for investors of Grupo EPM was carried out during the second trimester of the year.                                                                                                                                                                                       |
| Perform videoconferences to report quarterly financial results.                                                                 | 2018                         | The four quarterly results teleconferences were conducted (in Spanish and English) for national and international investors.                                                                                                                                                               |
| Participate in annual events of international capital markets, such as non-deal roadshows, organized by the commercial banking. | 2018                         | The group participated in three international events held in the United States during the second and third trimesters of the year. During these events, it was possible to introduce and update information about the main topics of the business group that are of interest to investors. |
| Keep both versions of the investor's website updated and improve navigation to facilitate access to content.                    | 2018                         | The website was regularly updated and navigation was improved to facilitate access to content in both English and Spanish versions.                                                                                                                                                        |

## GRI Standards and EPM indicators

**102-44** Key topics and concerns raised.

# Suppliers and contractors

## Composition

This group comprises natural persons and legal entities, at a national and international level, that are able to provide goods and services to the companies of Grupo EPM.

| Number of suppliers registered in the Supplier and Contractor Information System of EPM |       |       |
|-----------------------------------------------------------------------------------------|-------|-------|
| 2015                                                                                    | 2016  | 2017  |
| 4,238                                                                                   | 5,335 | 3,397 |

A decrease in the figures for 2017 is observed due to the change in the platform that supports the supplier registration process; therefore, some providers have not yet registered in this new application.

## Engagement goal

Set engagement schemes aligned with the strategic planning of Grupo EPM, in order to turn contracting into a lever for both the strategic goals and the sustainable and competitive development of the territories, by enhancing the local production network and strengthening and developing suppliers and indirect worker conditions, thus favoring sustainable human development.

## Leader of the engagement plan

Supplier Development and Diversity Unit

| Value distributed by EPM to suppliers and contractors |                          |                            |
|-------------------------------------------------------|--------------------------|----------------------------|
| 2015                                                  | 2016                     | 2017                       |
| COP 2,291.67 billion (45%)                            | COP 930.64 billion (19%) | COP 1,411.43 billion (24%) |

The value distributed was taken from the financial statements by stakeholder, prepared in accordance with the Fourth Financial Statement methodology by Luis Perera Aldama.

The value includes suppliers of goods and services and financial service providers.

## GRI Standards and EPM indicators

**102-44** Key topics and concerns raised.

**201-1** Direct economic value generated and distributed

# Partners

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## Composition

This group comprises the Grupo EPM's partners in its local and international companies.

Natural persons and legal entities that have right of ownership in the affiliated companies that are part of Grupo EPM.

## Engagement goal

Maintain the trust through the strict compliance of rights and commitments.

## Leader of the engagement plan

Corporate Governance Unit

## GRI Standards and EPM indicators

**102-44** Key topics and concerns raised.



**Stakeholder  
engagement**



**Grupo·epm<sup>®</sup>**



# Stakeholder engagement

The materiality exercise, which includes the stakeholders' view, is described in Material aspects and boundaries.

During 2017, the management of the challenges established for the 12 material topics continues, considering their priority in the national water and energy affiliates and the financial, social and environmental aspects of the BHAG. See Grupo EPM's BHAG:

<http://www.grupo-epm.com/site/home/proposito-y-estrategia/direccionamiento-estrategico>

Based on a consulting process by the firm KPMG, the group identified the emphases of material topics, taking into account the particularities, needs, current problems, and concerns of stakeholders: Customers and users, the community, and suppliers and contractors, who participated directly in meetings held in Armenia, Medellín, Yarumal, Santa Fe de Antioquia, Caucasia, and Bucaramanga, cities of the group's affiliates in Colombia.

In the Urabá region, this identification was made with the direct participation of the stakeholders as part of Grupo EPM's Model of Integration to the Territory.

Through the identification of the emphases of each material topic in the territories where Grupo EPM's companies are present and of stakeholders directly involved in said emphases, priorities in each affiliate could be known and managed.

For the affiliates outside of Colombia, the identification was based on information available on social media and other media. The results will serve to update the challenges and adjust the material topics in 2018.

In 2017, actions were implemented to strengthen the stakeholder engagement.

## Dialogs with EPM's stakeholders **Contents 102-43**

In March 2017, EPM held the event "Public Accountability, Management Report 2016," which was broadcasted live by the regional TV channel Teleantioquia and the radio station Radio Paisa during the program Aló EPM (1140 AM). It was one of the most relevant events to account for the opportunities, works, projects, and challenges that the group faces in the short and medium term and, mainly, to create a space for dialogue with representatives of different stakeholders.

At the end of the event, a press conference was held so that local and national media (newspapers, radio, and TV) had a record of the event.

The public accountability information presented by the CEO is available at:

<http://www.epm.com.co/site/Home/SostenibilidadEPM/InformedeSostenibilidad.aspx>

In addition to this, the national energy affiliates CENS, CHEC, EDEQ, and ESSA used various means to report their management to the stakeholders in their respective territories.

Besides these forums, the annual assessment of Grupo EPM's Sustainability Report 2016 took place with representatives of the stakeholders located in Antioquia. The assessment provided indicators for this report and the CSR management in general.

Since they are more tactical and specific in nature with regard to the projects and operations, the material topics mention, throughout the Sustainability Report 2017, other stakeholder participation opportunities.

The graph of value generated and distributed shows a quantitative expression of the impact on stakeholders, based on the Fourth Financial Statement methodology by the Uruguayan Luis Perera Aldama.

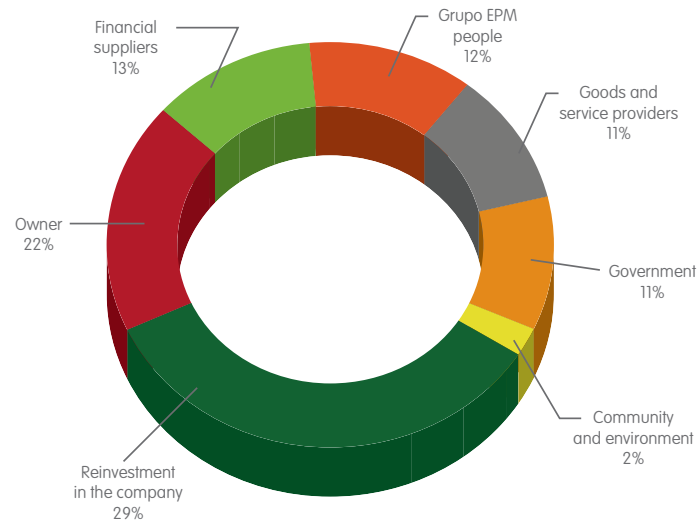
In 2017, representatives of the stakeholders—the community, customers and users, and suppliers and contractors—from the territories in Colombia where Grupo EPM's affiliates are present participated in the identification of emphases of material topics of the group. This will allow the group to focus on the management of what is most relevant for each territory.

**EPM's financial statement per stakeholders in 2017**  
**Value generated and distributed = COP 5,894.51 billion**

|                                        |                  |
|----------------------------------------|------------------|
| <b>Total value generated (TVG)</b>     | <b>5,894,511</b> |
| <b>Operating value generated (OVG)</b> | <b>5,466,130</b> |
| Revenue                                | 7,670,822        |
| Direct costs                           | (2,204,692)      |
| <b>Added value generated (AVG)</b>     | <b>428,381</b>   |
| Affiliates and associates              | 587,746          |
| Accounting items                       | (159,365)        |
| <b>Added value distributed (AVD)</b>   | <b>5,894,511</b> |
| Reinvestment in the company            | 1,672,889        |
| Owner                                  | 1,309,136        |
| Financial suppliers                    | 754,652          |
| Grupo EPM people                       | 726,545          |
| Goods and service suppliers            | 656,782          |
| Government                             | 640,069          |
| Community and environment              | 134,438          |

*Source: Executive Vice Presidency of Finance and Investment Management*

### EPM's financial statement per stakeholders in 2017



### Historical record of financial statement per stakeholders Grupo EPM (million COP)

|                                        | 2013             | 2014             | 2015             | 2016             | 2017             |
|----------------------------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Total value generated (TVG)</b>     | <b>7,256,218</b> | <b>7,698,124</b> | <b>8,152,140</b> | <b>7,376,181</b> | <b>8,367,488</b> |
| <b>Operating value generated (OVG)</b> | <b>7,866,383</b> | <b>7,066,843</b> | <b>8,501,525</b> | <b>8,048,649</b> | <b>8,771,017</b> |
| Revenue                                | 13,306,570       | 12,443,064       | 15,424,867       | 15,280,241       | 15,155,519       |
| Direct costs                           | (5,440,187)      | (5,376,221)      | (6,923,342)      | (7,231,592)      | (6,384,502)      |
| <b>Added value generated (AVG)</b>     | <b>(610,165)</b> | <b>631,281</b>   | <b>(349,384)</b> | <b>(672,467)</b> | <b>(403,529)</b> |
| Affiliates and associates              | 12,625           | 927,385          | (221,202)        | (197,132)        | (88,296)         |
| Accounting items                       | (622,790)        | (296,104)        | (128,183)        | (475,335)        | (315,234)        |
| <b>Added value distributed (AVD)</b>   | <b>7,256,218</b> | <b>7,698,124</b> | <b>8,152,140</b> | <b>7,376,182</b> | <b>8,367,488</b> |
| Reinvestment in the company            | 1,412,901        | 1,480,818        | 1,091,010        | 2,322,246        | 2,333,287        |
| Goods and service suppliers            | 1,341,016        | 1,064,440        | 1,348,719        | 1,329,363        | 1,356,969        |
| Owner                                  | 1,234,557        | 1,984,566        | 991,139          | 816,521          | 1,309,136        |
| Grupo EPM people                       | 1,410,574        | 883,283          | 1,016,864        | 1,117,763        | 1,255,589        |
| Estado                                 | 909,354          | 946,341          | 776,462          | 1,065,965        | 1,057,387        |
| Proveedores financieros                | 768,475          | 1,123,480        | 2,583,090        | 512,808          | 822,031          |
| Community and environment              | 99,307           | 109,044          | 176,451          | 133,485          | 146,760          |
| Minority stakeholders                  | 80,035           | 106,152          | 168,405          | 78,031           | 86,328           |

Source: Executive Vice Presidency of Finance and Investment Management

| <b>Financial statement per stakeholders and businesses</b> |                            |                  |                         |                 |                  |
|------------------------------------------------------------|----------------------------|------------------|-------------------------|-----------------|------------------|
| <b>Grupo EPM 2017 (million COP)</b>                        |                            |                  |                         |                 |                  |
|                                                            | <b>Total<br/>Grupo EPM</b> | <b>Energy</b>    | <b>Water<br/>supply</b> | <b>Other</b>    | <b>Deletions</b> |
| <b>Total value generated (TVG)</b>                         | <b>8,367,488</b>           | <b>6,484,438</b> | <b>1,780,289</b>        | <b>225,909</b>  | <b>(123,148)</b> |
| <b>Operating value generated (OVG)</b>                     | <b>8,771,017</b>           | <b>6,892,453</b> | <b>1,830,953</b>        | <b>262,981</b>  | <b>(215,369)</b> |
| Revenue                                                    | 15,155,519                 | 13,218,832       | 1,918,476               | 267,268         | (249,058)        |
| Direct costs                                               | (6,384,502)                | (6,326,380)      | (87,523)                | (4,287)         | 33,689           |
| <b>Added value generated (AVG)</b>                         | <b>(403,529)</b>           | <b>(408,015)</b> | <b>(50,664)</b>         | <b>(37,072)</b> | <b>92,221</b>    |
| Affiliates and associates                                  | (88,296)                   | (146,190)        | (8,774)                 | 66,668          | 0                |
| Accounting items                                           | (315,234)                  | (261,825)        | (41,890)                | (103,740)       | 92,221           |
| <b>Added value distributed (AVD)</b>                       | <b>8,367,488</b>           | <b>6,484,438</b> | <b>1,780,299</b>        | <b>225,909</b>  | <b>(123,158)</b> |
| Reinvestment in the company                                | 2,333,287                  | 2,062,870        | 699,446                 | (507,096)       | 78,067           |
| Owner                                                      | 1,309,136                  | 806,701          | 113,102                 | 389,332         | 0                |
| Goods and service suppliers                                | 1,356,969                  | 936,842          | 432,477                 | 48,131          | (60,481)         |
| Grupo EPM people                                           | 1,255,589                  | 867,206          | 269,214                 | 119,187         | (18)             |
| Government                                                 | 1,057,387                  | 988,330          | 28,954                  | 49,590          | (9,487)          |
| Financial suppliers                                        | 822,031                    | 603,250          | 223,264                 | 126,757         | (131,240)        |
| Community and environment                                  | 146,760                    | 132,910          | 13,842                  | 8               | 0                |
| Minority stakeholders                                      | 86,328                     | 86,328           | 0                       | 0               | 0                |

*Source: Executive Vice Presidency of Finance and Investment Management*

| Financial statement per stakeholders and countries - Grupo EPM 2017 (million COP) |                  |                  |                 |                |                 |                 |                 |              |                 |
|-----------------------------------------------------------------------------------|------------------|------------------|-----------------|----------------|-----------------|-----------------|-----------------|--------------|-----------------|
|                                                                                   | Total Grupo EPM  | Colombia         | Chile           | El Salvador    | Guatemala       | Panama          | Mexico          | Bermudas     | Deletions       |
| <b>Total value generated (TVG)</b>                                                | <b>8,367,488</b> | <b>6,827,736</b> | <b>368,471</b>  | <b>185,000</b> | <b>559,641</b>  | <b>398,857</b>  | <b>109,013</b>  | <b>7,795</b> | <b>(89,026)</b> |
| <b>Operating value generated (OVG)</b>                                            | <b>8,771,017</b> | <b>7,036,493</b> | <b>433,675</b>  | <b>192,175</b> | <b>601,272</b>  | <b>464,472</b>  | <b>124,161</b>  | <b>7,795</b> | <b>(89,026)</b> |
| Revenue                                                                           | 15,155,519       | 9,914,785        | 511,681         | 803,964        | 1,929,200       | 1,949,969       | 126,902         | 8,228        | (89,211)        |
| Direct costs                                                                      | (6,384,502)      | (2,878,292)      | (78,007)        | (611,789)      | (1,327,928)     | (1,485,497)     | (2,742)         | (433)        | 186             |
| <b>Added value generated (AVG)</b>                                                | <b>(403,529)</b> | <b>(208,757)</b> | <b>(65,204)</b> | <b>(7,175)</b> | <b>(41,631)</b> | <b>(65,614)</b> | <b>(15,148)</b> | <b>0</b>     | <b>0</b>        |
| Affiliates and associates                                                         | (88,296)         | 5,287            | (10)            | (4,476)        | (48,566)        | (41,295)        | 765             | 0            | 0               |
| Accounting items                                                                  | (315,234)        | (214,044)        | (65,194)        | (2,699)        | 6,935           | (24,320)        | (15,912)        | 0            | 0               |
| <b>Added value distributed (AVD)</b>                                              | <b>8,367,488</b> | <b>6,827,736</b> | <b>368,471</b>  | <b>185,000</b> | <b>559,641</b>  | <b>398,857</b>  | <b>109,013</b>  | <b>7,795</b> | <b>(89,026)</b> |
| Reinvestment in the company                                                       | 2,333,287        | 1,121,388        | 148,622         | 38,970         | 88,797          | 133,657         | 11,481          | 0            | 790,373         |
| Owner                                                                             | 1,309,136        | 1,309,136        | 0               | 0              | 0               | 0               | 0               | 0            | 0               |
| Goods and service suppliers                                                       | 1,356,969        | 1,036,946        | 58,554          | 28,725         | 98,552          | 62,598          | 72,280          | 1,128        | (1,814)         |
| Grupo EPM people                                                                  | 1,255,589        | 1,023,848        | 54,741          | 39,592         | 68,680          | 49,096          | 19,280          | 352          | (0)             |
| Government                                                                        | 1,057,387        | 873,935          | 11,349          | 40,241         | 70,846          | 53,259          | 7,758           | 0            | 0               |
| Financial suppliers                                                               | 822,031          | 736,061          | 5,813           | 9,018          | 40,626          | 67,476          | 53,214          | (3,433)      | (86,744)        |
| Community and environment                                                         | 146,760          | 146,105          | 258             | 0              | 117             | 280             | 0               | 0            | 0               |
| Minority stakeholders                                                             | 86,328           | 35,769           | 0               | 4,803          | 23,330          | 22,426          | 0               | 0            | 0               |

Source: Executive Vice Presidency of Finance and Investment Management



# Commitments to external sustainability initiatives



Grupo·epm®






# Commitments to external sustainability initiatives

External sustainability initiatives signed or adopted by EPM

|                                                                                     |                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p><b>AA1000 Stakeholder Engagement Standard</b></p> <ul style="list-style-type: none"> <li>Stakeholder engagement.</li> </ul>                                                                                                                                                                                                         |
|    | <p><b>Agreement for Sustainability - ANDESCO</b></p> <ul style="list-style-type: none"> <li>Sustainable development, public policies, water, energy, environment, solid waste, information and communication technologies, human rights, and sustainable integration into the territory.</li> </ul>                                    |
|   | <p><b>Latin American Association of Water and Sanitation Operators (abbreviated Aloas in Spanish)</b></p> <ul style="list-style-type: none"> <li>Institutional development of service providers of health, health standards, human development, sustainability, and environmental protection.</li> </ul>                               |
|  | <p><b>Architects of a Better World</b></p> <ul style="list-style-type: none"> <li>Corporate sustainability, priorities of the post-2015 global development agenda, long-term business goals, action and collaboration platforms, social and market-related drivers and incentives, transparency, and public accountability.</li> </ul> |
|  | <p><b>Business for Peace - Global Compact</b></p> <ul style="list-style-type: none"> <li>Role of the companies on peace issues in the territories where they have direct influence.</li> </ul>                                                                                                                                         |
| <p>Caring for Climate</p>                                                           | <p><b>Caring for Climate</b></p> <ul style="list-style-type: none"> <li>Climate change.</li> </ul>                                                                                                                                                                                                                                     |
|  | <p><b>World Business Council for Sustainable Development (WBCSD)</b></p> <ul style="list-style-type: none"> <li>Corporate social responsibility and sustainability</li> </ul>                                                                                                                                                          |

|                                                                                                                                                                                     |                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>CME</b><br/>Seguridad y Derechos Humanos<br/>Algunas prioridades, mejores oportunidades</p> | <p><b>Mining &amp; Energy Committee</b></p> <ul style="list-style-type: none"> <li>Human rights: public and private security.</li> </ul>                                                                                                                                      |
|  <p><b>RIO+20</b></p>                                                                              | <p><b>Rio Declaration</b></p> <ul style="list-style-type: none"> <li>Sustainable development.</li> </ul>                                                                                                                                                                      |
|  <p><b>Dow Jones Sustainability Indexes</b><br/>Member 2912/11</p>                                 | <p><b>Dow Jones Sustainability Index</b></p> <ul style="list-style-type: none"> <li>Economic, social, and environmental performance index.</li> </ul>                                                                                                                         |
|  <p><b>Global Reporting Initiative™</b></p>                                                        | <p><b>Global Reporting Initiative (GRI)</b></p> <ul style="list-style-type: none"> <li>Global sustainability report.</li> </ul>                                                                                                                                               |
|  <p><b>Guías Colombia</b><br/>Asociación Colombiana de Guías y Turistas</p>                        | <p><b>Guías Colombia</b></p> <ul style="list-style-type: none"> <li>Human rights and international humanitarian law.</li> </ul>                                                                                                                                               |
|  <p><b>iha</b><br/>International Hydropower Association</p>                                       | <p><b>International Hydropower Association (IHA)</b></p> <ul style="list-style-type: none"> <li>Sustainable hydropower.</li> </ul>                                                                                                                                            |
|  <p><b>INSTITUTO ETHOS</b><br/>DE EMPRESAS E RESPONSABILIDADE SOCIAL</p>                         | <p><b>Ethos Indicators</b></p> <ul style="list-style-type: none"> <li>Values, transparency, and corporate governance; internal audience, environment, suppliers, consumers, community, government, and society.</li> </ul>                                                    |
|  <p><b>ISO</b></p>                                                                               | <p><b>ISO 14001 – Environmental Management</b></p> <ul style="list-style-type: none"> <li>Pollution and environmental management.</li> </ul>                                                                                                                                  |
|  <p><b>ISO 26000</b></p>                                                                         | <p><b>ISO 26000 – International Standard on Social Responsibility</b></p> <ul style="list-style-type: none"> <li>Governance, human rights, labor practices, environment, fair operating practices, consumer issues, community active involvement, and development.</li> </ul> |
|  <p><b>ODS</b></p>                                                                               | <p><b>Sustainable Development Goals 2030</b></p> <ul style="list-style-type: none"> <li>2030 Agenda for Sustainable Development about 17 goals focused on people, the planet, prosperity, peace, and alliances.</li> </ul>                                                    |
|  <p><b>EQUATOR PRINCIPLES</b></p>                                                                | <p><b>Equator Principles</b></p> <ul style="list-style-type: none"> <li>Environmental and social management.</li> </ul>                                                                                                                                                       |



|                                                                                                                                                                     |                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                    | <p><b>Global Compact Principles</b></p> <ul style="list-style-type: none"> <li>• Labor rights, human rights, environment, and anti-corruption.</li> </ul>      |
| <p><b>COP21</b></p>                                                                                                                                                 | <p><b>COP 21 - Paris Agreement</b></p> <ul style="list-style-type: none"> <li>• Emission mitigation.</li> </ul>                                                |
|  <p>The CEO Water Mandate</p>                                                      | <p><b>The CEO Water Mandate - Global Compact</b></p> <ul style="list-style-type: none"> <li>• Commitment of the private sector to water management.</li> </ul> |
|  <p><b>TRANSPARENCIA POR COLOMBIA</b><br/>CAPITALO TRANSPARENCIA INTERNACIONAL</p> | <p><b>Transparencia por Colombia</b></p> <ul style="list-style-type: none"> <li>• Transparency indicator in public utility companies.</li> </ul>               |

## Participation in guilds and associations

| Type                                                      | Guild or association                                                              |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------|
| <b>National guilds and associations</b>                   | ACEF - Colombian Association of Finance Executives                                |
|                                                           | ACI - Agency for Cooperation and Investment of Medellín and the Metropolitan Area |
|                                                           | Acolgen - Colombian Association of Electricity Generators                         |
|                                                           | Acopi - Colombian Association of Small Industries                                 |
|                                                           | Collective Agreement of the Electricity Sector                                    |
|                                                           | Andesco - National Association of Utilities and Communications Companies          |
|                                                           | ANDI - National Business Association of Colombia                                  |
|                                                           | ASCORT - Colombian Association of Labor Relations                                 |
|                                                           | ASTC - Association of Science - Technology Centers                                |
|                                                           | AFE - Association of Corporate Foundations                                        |
|                                                           | Asocodis - Colombian Association of Electricity Distributors                      |
|                                                           | CNO - National Operation Council of Gas                                           |
|                                                           | CNO - National Operation Council                                                  |
|                                                           | CAC - Marketing Advisory Committee                                                |
|                                                           | Colombian Chilean Chamber of Commerce                                             |
|                                                           | CAPT - Transmission Planning Advisory Committee                                   |
|                                                           | Cátedra del Agua Magazine                                                         |
|                                                           | CCCS - Colombian Council for Sustainable Constructions                            |
|                                                           | Cecodes - Colombian Business Council for Sustainable Development                  |
|                                                           | CETA - Center for Tax Studies of Antioquia                                        |
| Cidet - Center for Research and Technological Development |                                                                                   |
| CIER - Regional Energy Integration Commission             |                                                                                   |
| Medellín Electric Energy Cluster                          |                                                                                   |

| Type                                    | Guild or association                                                                                                   |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>National guilds and associations</b> | CME - Mining & Energy Committee                                                                                        |
|                                         | Cocier - Colombian Member Committee of the Regional Energy Integration Commission                                      |
|                                         | Colombia Inteligente (Smart Colombia)                                                                                  |
|                                         | National Commission for Health and Safety at Work of the Electricity Sector - Ministry of Labor                        |
|                                         | Committee of Coffee Growers of Caldas                                                                                  |
|                                         | Committee of Coffee Growers of Risaralda                                                                               |
|                                         | Committee of Employees and Compliance Officers of the Real Sector                                                      |
|                                         | Inter-institutional Committee of Libraries                                                                             |
|                                         | CIDEA - Inter-institutional Committee for Environmental Education of Antioquia                                         |
|                                         | CIDEAM Medellín - Inter-institutional Committee for Environmental Education of Medellín                                |
|                                         | Reading Plan Sectoral Committee                                                                                        |
|                                         | Inter-institutional Thematic Committee on Climate Change of the Municipality of Medellín                               |
|                                         | UIGC - University - Industry - Government Committee                                                                    |
|                                         | Colombian Council for Security                                                                                         |
|                                         | WEC - World Energy Council                                                                                             |
|                                         | CUEES                                                                                                                  |
|                                         | High Cost Account                                                                                                      |
|                                         | Guías Colombia                                                                                                         |
|                                         | ICDT - Colombian Institute of Tax Law                                                                                  |
|                                         | ICONTEC - Colombian Institute of Technical Standards and Certification                                                 |
|                                         | ICTIS - Colombian Institute for Subterranean Infrastructure Technologies and Techniques                                |
|                                         | IIA - Colombian Institute of Internal Auditors                                                                         |
|                                         | National Institute of Metrology                                                                                        |
|                                         | INVISBU - Institute for Social Housing and Urban Reform of Bucaramanga                                                 |
|                                         | ISACA - Information Systems Audit and Control Association                                                              |
|                                         | Medellín's Downtown Cultural Committee                                                                                 |
|                                         | Indigenous Committee                                                                                                   |
|                                         | Committee on Children and Youth of the District 10                                                                     |
|                                         | Committee on Critical Infrastructure, Operational Risk, and National Cyber Defense in the Ministry of National Defense |
|                                         | MMM - Committee of Medellín's Museums                                                                                  |
|                                         | SENA's Committee of the Electricity Sector                                                                             |
|                                         | National Committee for Adaptation to Climate Change                                                                    |
| Committees led by SENA                  |                                                                                                                        |

| Type                                         | Guild or association                                                                           |
|----------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>National guilds and associations</b>      | Naturgas - Colombian Association of Natural Gas                                                |
|                                              | ONAC - Colombian National Accreditation Organization                                           |
|                                              | Program for integrity - Initiative by the UNODC                                                |
|                                              | RMA - Network of Antioquia's Museums                                                           |
|                                              | RedPop - Latin American and Caribbean Network for the Popularization of Science and Technology |
|                                              | Network of Corporate Reputation                                                                |
|                                              | Network for Transparency and Citizen Participation                                             |
|                                              | Global Compact Network Colombia                                                                |
|                                              | RIMS - Risk and Insurance Management Society                                                   |
|                                              | Ruta N                                                                                         |
|                                              | Santander Competitivo (Competitive Santander)                                                  |
| Servinfo                                     |                                                                                                |
| WOP-LAC                                      |                                                                                                |
| <b>International guilds and associations</b> | IHA - International Hydropower Association                                                     |
|                                              | ALOAS - Latin American Association of Water and Sanitation Operators                           |
|                                              | IFLA - International Federation of Library Associations and Institutions                       |
|                                              | ICOM - International Council of Museums                                                        |
|                                              | EBAM (Latin American Meeting on Libraries, Archives, and Museums) International Committee      |
|                                              |                                                                                                |
| <b>Trade guilds and associations</b>         | Fenalco Santander                                                                              |
|                                              | Fenalco Sur de Santander                                                                       |
|                                              | Camacol                                                                                        |
|                                              | Medellin-Antioquia Chamber of Commerce                                                         |
|                                              | Colombian Mexican Chamber of Commerce                                                          |
|                                              | Camacol Caldas                                                                                 |
|                                              | Camacol Risaralda                                                                              |
|                                              | Fenalco Caldas                                                                                 |
|                                              | Fenalco Risaralda                                                                              |
|                                              | La Dorada Chamber of Commerce                                                                  |
|                                              | Chinchiná Chamber of Commerce                                                                  |
| Dos Quebradas Chamber of Commerce            |                                                                                                |
| Pereira Chamber of Commerce                  |                                                                                                |

## Most substantial subscriptions and affiliations

| Most substantial subscriptions and affiliations in 2017 (million COP) |                      |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                          |     |      |      |      |      |          |                 |
|-----------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|------|------|------|----------|-----------------|
| Rank                                                                  | Guild or association | Description                                                                                                                                                                                                                                                                                                                     | Purpose of the affiliation                                                                                                                                                                               | EPM | ESSA | CENS | CHEC | EDEQ | Emvarias | Total Grupo EPM |
| 1                                                                     | Asocodis             | Addresses the technical aspects inherent to power transport, distribution, and commercialization. Deals with regulatory, legislative, and legal issues of the power generation sector.                                                                                                                                          | This entity gathers the main power distribution and commercialization companies that serve regulated and nonregulated users throughout Colombia.                                                         | 272 | 131  | 85   | 50   | 15   | 0        | 555             |
| 2                                                                     | Acolgen              | Addresses issues of environmental regulation and disseminates good practices in environmental issues, sustainability, and corporate responsibility for the power generation sector.                                                                                                                                             | The participation in this guild allows the sectoral development and management of strategic issues of the power generation business before the institutions of the sector and before the public opinion. | 515 | 0    | 0    | 0    | 0    | 0        | 515             |
| 3                                                                     | Andesco              | Represents the common interests of affiliated companies and promotes sustainability, understood as the balance between the economic, social, and environmental issues, at national and international levels, promoting the creation of shared value for communities and other stakeholders based on equity and competitiveness. | This common-interest guild was created to represent the interests of the affiliated public utility companies as well as the ICT and television companies.                                                | 75  | 83   | 68   | 0    | 12   | 28       | 265             |
| 5                                                                     | ANDI                 | Disseminates and promotes the political, economic, and social principles of a healthy system of free enterprise.                                                                                                                                                                                                                | Strategic access to information managed in the national industrial sector.                                                                                                                               | 0   | 35   | 34   | 100  | 0    | 2        | 172             |

Most substantial subscriptions and affiliations in 2017 (million COP)

|   | Guild or association | Description                                                                                                                                                                                                                                                                                                   | Purpose of the affiliation                                                                                                                                                                                                                                                                                                                                                                         | EPM | ESSA | CENS | CHEC | EDEQ | Emvarias | Total Grupo EPM |
|---|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|------|------|------|----------|-----------------|
| 6 | Naturgas             | Private, non-profit organization with scientific and technical purposes, made up of 25 companies that produce, transport, distribute, and commercialize natural gas in Colombia.                                                                                                                              | Naturgas' purpose is to study, from the scientific, technical, and institutional points of view, all the subjects of common interest in the areas of safety, development, regulation, standardization, use of information, and any other aspect that affects or concerns natural gas, and, generally, to advocate for the defense of this purpose's interests as well as those of the association. | 141 | 0    | 0    | 0    | 0    | 0        | 141             |
| 7 | Cidet                | Private, non-profit organization founded in 1995 by companies of the Colombian electricity sector to work for its development and competitiveness. Focused on developing capacities in the power industry to contribute to prosperity, based on knowledge, technological tools, and specialized laboratories. | This center is the engine of innovation in the electricity sector. It is focused on networking using science and technology to develop business assets that increase competitiveness.                                                                                                                                                                                                              | 73  | 0    | 21   | 21   | 8    | 0        | 122             |

Most substantial subscriptions and affiliations in 2017 (million COP)

|   | Guild or association | Description                                                                                                                                                                                                                                                                                                                                                                                             | Purpose of the affiliation                                                                         | EPM | ESSA | CENS | CHEC | EDEQ | Emvarias | Total Grupo EPM |
|---|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----|------|------|------|------|----------|-----------------|
| 8 | CNO                  | Created by Article 36 of Act 143 of 1994, is a private organization whose main functions are to agree on the technical aspects to ensure that the operation of the National Interconnected System is safe, reliable, and economical and to enforce the operation regulations.                                                                                                                           | The affiliation is lawfully mandatory.                                                             | 118 | 0    | 0    | 0    | 0    | 0        | 118             |
| 9 | Cocier               | Brings together the companies and organizations of the Colombian electricity sector with the purpose of linking them together to promote the integration and exchange of experiences through information; the creation of working groups to develop projects seeking to solve common problems; and the research, study, and training in meetings and seminars at the national and international levels. | Homologation of good practices of health and safety at work in the electricity sector of the CIER. | 37  | 25   | 20   | 20   | 0    | 0        | 102             |

Most substantial subscriptions and affiliations in 2017 (million COP)

|              | Guild or association | Description                                                                                                                                                                                                                                                                                                                                          | Purpose of the affiliation                                                                                                                                                                                                                   | EPM          | ESSA       | CENS       | CHEC       | EDEQ      | Emvarias  | Total Grupo EPM |
|--------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|------------|------------|-----------|-----------|-----------------|
| 10           | CME                  | Space for the study, the reflection, and the advice with the purpose of improving the performance of the sector and the institutions of the Colombian government in the respect for human rights concerning the public and private security. A permanent forum to discuss complex issues that significantly impact the work of the member companies. | It promotes the implementation of these principles in the practices and processes that companies develop every day, as well as in the relationship with public and private security personnel, in order to promote respect for human rights. | 46           | 0          | 0          | 0          | 0         | 0         | 46              |
| <b>Total</b> |                      |                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                              | <b>1,277</b> | <b>275</b> | <b>229</b> | <b>191</b> | <b>35</b> | <b>30</b> | <b>2,037</b>    |



**Joint**  
responsibility for  
the environment

Grupo·epm®





## Joint responsibility for the environment

Grupo EPM is committed to the sustainability of the territories where it operates and establishes synergies through agreements, inter-administrative contracts, working groups, and other strategic alliances that seek to develop actions for the protection and improvement of the environment and conditions of life of the surrounding communities.

During 2017, the group participated in the institutional coordination for the ecological restoration of the Medellín-Aburrá River and its tributaries.

Along with the environmental entities, the group monitored the damages to the supply sources of the aqueduct system in the metropolitan area.

It participated in more than 40 environmental committees, signing agreements with families and institutions to develop conservation actions and to preserve ecosystems of interest in the basins of the Grande-Chico, Guadalupe, and Porce rivers, as well as in Serranía de Abibe in areas of influence of Corpourabá.

The group also developed projects of environmental conservation, sustainable use of natural resources, and ecotourism in eastern Antioquia.

It strengthened initiatives for the conservation of the basins of the Chinchiná river and the Campoalegre river and the streams of the municipality of Marsella.

The group continues to engage families in all its areas of influence in Santander, Antioquia, and the coffee region in the conservation of ecosystems through the BanCO2 program.

EPM works hand in hand with guilds and the national government through the Ministry of Environment and Sustainable Development to contribute to the creation, review, and analysis of environmental public policies, incentives, and rules of mandate; to identify the positive or negative impact of the existing controls in the sector, the natural resources, and the environment; and to promote the growth of public utility sectors and the development of sustainable territories. In 2017, EPM had an active participation, in conjunction with guilds and ministries, analyzing standards.

In 2017, Grupo EPM's companies developed different initiatives in partnership with public and private entities and social organizations.

EPM worked hand in hand with Metro de Medellín, Cornare, Corantioquia, Área Metropolitana del Valle de Aburrá (AMVA), the municipality of Medellín, municipalities of the metropolitan area, Prodepaz, and several municipalities of eastern Antioquia. EPM also worked with Corpourabá, Isagen, WWF, Corporación Parque Arví, Masbosques, Centro de Tecnología de Antioquia, National University of Colombia, and several municipalities of the Porce River basin.

As for CHEC, it demonstrated its commitment to environmental conservation by signing agreements with Corpocaldas, Aguas de Manizales, Ascundesarrollo, Espumar, Committee of Coffee Growers, Singenta, Corfuturo, Carder, Fundación Ecológica Cafetera, and some municipalities of its area of influence.

EDEQ partnered with the Regional Autonomous Corporation of Quindío, Fundación Más Verde Más Vida, the local community, police officers, Masbosques, and University of Quindío.

ESSA joined efforts with the Regional Autonomous Corporation of Santander, the local community, and Corporación Parque Nacional del Chicamocha.

As for the management of the international affiliates, ENSA, in Panama, joined forces with the ECO Farms and Ancon foundations; Delsur, in El Salvador, with Fundemás; and Eegsa, in Guatemala, with the National Council for Protected Areas (abbreviated CONAP in Spanish), Foundation for the Conservation in Guatemala (FCG), the municipalities of Mixco and Chinautla, and Fundación Defensores de la Naturaleza. All these agreements took place to protect natural resources and keep these protected areas as such.

EPM, for its part, participated in different associations such as the environmental chamber of Andesco and the environmental committee of Acolgen, through which it managed to exchange experiences towards the formulation and implementation of corporate environmental management. At the same time, the company achieved the proactive impact of governmental decrees and statutes as well as public policies such as: Decree 075 of 2017 (forced investment of 1%), Statute 0472 of 2017 (construction and demolition waste), Statute 2028 of 2016 (program of forests of peace), Decree 870 of 2017 (payment for environmental services), Decree 926 of 2017 (carbon neutral), Statute 1051 of 2017 (habitat banks), Statute 1519 of 2017 (terms of reference for the preparation of Environmental Impact Study of Hydroelectric Projects), Decree 1155 of 2017 (rate for the use of water), Statute 1669 of 2017 (technical criteria for the use of economic tools in projects, works, or activities subject to environmental licensing), Statute 1571 of 2017 (minimum fee for rate for the use of water), Statute 1670 of 2017 (terms of reference for the preparation of Environmental Impact Study of Photovoltaic Solar Energy Projects), Statute 2254 of 2017 (air quality regulations), and Statute 2000 of 2017 (sales tax exemption requirements).

See joint environmental initiatives:

<http://www.sostenibilidadgrupoepm.com.co/english/joint-environmental-initiatives/>



**Precautionary  
principle**



**Grupo·epm®**



## Precautionary principle

According to the precautionary principle<sup>1</sup>, the lack of full scientific certainty is not an excuse to postpone the adoption of effective and early measures to prevent environmental and human health degradation.

In Grupo EPM, a cautious approach to protect the environment and the human health is incorporated from its strategic planning. The purpose is based on the precepts of sustainable human development, suggesting a business performance that harmonizes financial, social, and environmental results. The strategy considers corporate social responsibility as the compass for growth and profitability and optimization of operations

**(content GRI 102-11).**

Grupo EPM has undertaken actions based on national environmental and risk-management policies, associated with loss of biodiversity, climate change, and risks for people.

These actions have contributed to scientific strengthening, to achieve synergies with different stakeholders for environmental protection, and to support decision-making. They aim at the protection of environmental services, such as CO<sub>2</sub> fixation, emission reduction and offset, protection and use of water resources, and protection of the landscape and biodiversity, through individual strategies and in partnership with other stakeholders. The main initiatives in this regard can be found on the following material topics: Water care, Biodiversity, and Climate strategy.

Grupo EPM's BHAG explicitly states that, in addition to the financial dimension, in 2025, the group will be protecting 137 thousand new hectares of watersheds, besides those of its own, with a neutral carbon operation.

<sup>1</sup> Rio Declaration, UN Conference on Environment and Development, 1992.



**Material  
topics**



**Grupo·epm<sup>®</sup>**





**Access to and  
purchasability  
of public utilities**

**Grupo·epm<sup>®</sup>**





## Access to and purchasability of public utilities

Availability of public utilities through conventional and alternative solutions that promote human and territorial development.

Purchasability refers to the options and solutions available for users and customers, meeting their tastes, preferences and needs, and taking into account their ability and willingness to pay, so that they permanently enjoy residential public utilities. The purchasability solutions are: Paga a tu medida (Pay According to Your Needs), prepaid services, financing of bills, and Somos: the loyalty and rewarding program by Grupo EPM.

Access implies service availability, in compliance with regulations and standards, through infrastructure solutions such as rural electrification, Energía para el Retorno (Energy for the Return), Gas sin Fronteras (Gas Without Borders), Habitación Viviendas (Habitable Homes), public standpipes, and community meters, which also aim at providing the service to populations living in areas with technical or legal restrictions for its provision. This is further explained in Unserved population.

In its BHAG, Grupo EPM ensures "...100% of the population in the territories where it operates will have access to its services." This reflects the commitment to universalize the service, with a citizen-oriented approach that leads us to the great challenge of developing solutions in an innovative way.

Fundación EPM runs the program called Water for Education, Education for Water, which aims at facilitating access to this service by installing water purification solutions in rural educational institutions in Antioquia. For further information, please refer to Fundación EPM (complementary aspects).

### Stakeholders' vision

Issues such as the low purchasing power of the market, the risk of an increase in the number of disconnected users, and the large number of vulnerable people challenge the organization to develop programs to improve access to and purchasability of its services.

### Relevance

The coverage of public utilities is part of the core business of Grupo EPM and has a direct impact on the sustainable human development of territories. The organization understands the importance of universalizing public utilities through the connection of new customers and users, the purchasability of the services according to their economic capacity, and the connection of those populations located where technical or legal limitations difficult the service provision.

## Risks in sustainability associated with this topic

- Lack of solutions for access to public utilities.
- Insufficient offers to meet the specific needs of the population regarding purchasability of public utilities.

For more detailed information on the risk analysis associated with material topics, refer to Material aspects and boundaries (General information).

## Main achievements

| Goals for 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Company  | Achievements in 2017                                                                                                              | Accomplishment   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------|------------------|
| Connect, through Habitable Homes, 440 homes to the water supply and sewerage services.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | EPM      | 459 aqueduct connections and 594 sewerage connections were made.                                                                  | Total            |
| Cover (universalize) by 95.82% in water supply.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | EPM      | Coverage (universalization) as of December 2017: 96.13%                                                                           | Total            |
| Cover (universalize) by 93.81% in waste water.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | EPM      | Coverage (universalization) as of December 2017: 94.08%                                                                           | Total            |
| Emvarias collected around 1,377 kg of special waste such as batteries, lights, medicines, cooking oil, among others, avoiding the pollution of land and water resources.<br>It also partnered with the private sector to provide citizens with adequate waste disposal and create a new reclaiming culture in the city.<br>The company created Rutarecicla, a new service of selective collection of reclaimed waste. With this service, the company takes solid waste to a classification and reclaiming station (abbreviated ECA in Spanish), instead of transporting it and dispose of it in the sanitary landfill. The service began operations in the district 14 of Medellín with four differentiated vehicles. | Emvarias | New challenge accomplished in 2017.                                                                                               | Total            |
| Connect 7,838 customers and users to the prepaid water service.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | EPM      | 3,934 customers were connected to the prepaid water offer. The accomplishment was 50% due to the exhaustion of the target market. | Not accomplished |



| Goals for 2017                                                                                                                                                                                                                                                                                            | Company | Achievements in 2017                                                                                | Accomplishment   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------------------------------------------------|------------------|
| Install 30 public charging stations for electric vehicles.                                                                                                                                                                                                                                                | EPM     | Ten public charging stations were installed.                                                        | Not accomplished |
| Connect 24,100 facilities through the Habitable Homes program.                                                                                                                                                                                                                                            | EPM     | 24,374 facilities were connected. The accomplishment was 101%.                                      | Total            |
| Build infrastructure in rural areas without electricity coverage, in order to enable the connection of 1,866 facilities (rural electrification).                                                                                                                                                          | EPM     | 2,292 facilities were connected to the energy service. The accomplishment was 122%.                 | Total            |
| Connect 78,492 new customers to the EPM's energy service.                                                                                                                                                                                                                                                 | EPM     | 76,741 new customers were connected. The accomplishment was 98%.                                    | Total            |
| ESCO: Upon putting the La Alpujarra District Cooling into operation, EV Alianza Energética S.A. took on the role of its operation and maintenance. Today, the district has clients such as DIAN, the Antioquia Governor's Office, and the Medellín Mayor's Office.                                        | EPM     | New challenge accomplished in 2017.                                                                 | Total            |
| Green energy: EPM is leader in Colombia with this type of offer. 466,000 renewable energy certificates (REC) were sold in 27 companies such as Cartón de Colombia, Peldar, Compañía Nacional de Chocolates, Bimbo, Zenú, among others. This represents an approximate income of COP 700 million per year. | EPM     | New challenge accomplished in 2017.                                                                 | Total            |
| Connect 19,500 customers to EPM's prepaid energy service in 2017.                                                                                                                                                                                                                                         | EPM     | 22,084 customers connected to the prepaid energy offer. The accomplishment was 113%.                | Total            |
| Connect 3,000 customers to ESSA's prepaid energy service in 2017.                                                                                                                                                                                                                                         | ESSA    | 4,970 customers connected to ESSA's prepaid energy offer. The accomplishment was 165%.              | Total            |
| Connect 30,000 new customers to EPM's Paga a tu medida.                                                                                                                                                                                                                                                   | EPM     | 51,070 customers connected to Paga a tu medida's prepaid energy offer. The accomplishment was 170%. | Total            |
| Connect 11,507 new customers to the energy service.                                                                                                                                                                                                                                                       | CHEC    | 10,830 customers connected. The accomplishment was 94%.                                             | Partial          |
| Connect 4,327 new customers to the energy service.                                                                                                                                                                                                                                                        | EDEQ    | 4,929 new customers connected to the energy service. The accomplishment was 114%.                   | Total            |

| Goals for 2017                                                                                                | Company | Achievements in 2017                                                                                                                                                                      | Accomplishment |
|---------------------------------------------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Connect 14,000 new customers to the energy service.                                                           | CENS    | 24,153 customers connected. The accomplishment was 172%.                                                                                                                                  | Total          |
| Connect 14,964 new customers to the energy service.                                                           | ESSA    | 28,476 new customers connected. The accomplishment was 190%.                                                                                                                              | Total          |
| Connect 53,571 new customers to natural gas: 40,775 in Valle de Aburrá and 12,796 outside of Valle de Aburrá. | EPM     | The goal was exceeded by 17,582 new customers, for a total of 71,753 new customers connected to the natural gas service: 55,375 in Valle de Aburrá and 15,778 outside of Valle de Aburrá. | Total          |
| Cover (universalize) by 82.97% the territories where the gas service is present.                              | EPM     | As of December, the universalization reached 82.75%, with a total of 1,132,329 customers enjoying the gas service.                                                                        | Partial        |

## Challenges

| Challenges for 2018                                                               | Year in which it is achieved | Scope and coverage            |                    |                                                    |
|-----------------------------------------------------------------------------------|------------------------------|-------------------------------|--------------------|----------------------------------------------------|
|                                                                                   |                              | Territory                     | Business           | Company                                            |
| Connect 40,000 customers of the EPM homes segment to the Paga a tu medida offer.  | 2018                         | Colombia – Antioquia          | All the businesses | Empresas Públicas de Medellín - EPM                |
| Connect 17,502 customers of the EPM homes segment to the prepaid energy offer.    | 2018                         | Colombia – Antioquia          | Electrical energy  | Empresas Públicas de Medellín - EPM                |
| Connect 4,000 customers of the ESSA homes segment to the prepaid energy offer.    | 2018                         | Colombia – Santander          | Electrical energy  | Electrificadora de Santander - ESSA                |
| Connect 3,680 customers of the CENS homes segment to the prepaid energy offer.    | 2018                         | Colombia - Norte de Santander | Electrical energy  | Centrales Eléctricas del Norte de Santander - CENS |
| Connect 2,000 customers of the EPM homes segment to the prepaid water offer.      | 2018                         | Colombia – Antioquia          | Water              | Empresas Públicas de Medellín - EPM                |
| Connect 10,000 customers of the ESSA homes segment to the Paga a tu medida offer. | 2018                         | Colombia – Santander          | All the businesses | Electrificadora de Santander - ESSA                |

| Challenges for 2018                                                                                                                                                                                                         | Year in which it is achieved | Scope and coverage            |                    |                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------|--------------------|----------------------------------------------------|
|                                                                                                                                                                                                                             |                              | Territory                     | Business           | Company                                            |
| Connect 3,743 customers of the CENS homes segment to the Paga a tu medida offer.                                                                                                                                            | 2018                         | Colombia - Norte de Santander | All the businesses | Centrales Eléctricas del Norte de Santander - CENS |
| Reach the Grupo EPM water provision universalization percentages established as follows: EPM: 97.20% - Aguas Regionales: 91.64% - Aguas del Oriente: 100% - Aguas de Malambo: 92.18% - Grupo EPM (in Colombia): 96.72%.     | 2018                         | Colombia - Antioquia          | Water              | Empresas Públicas de Medellín - EPM                |
| Reach the Grupo EPM waste water service universalization percentages established as follows: EPM: 95.22% - Aguas Regionales: 74.59% - Aguas del Oriente: 100% - Aguas de Malambo: 78.64% - Grupo EPM (in Colombia): 93.41%. | 2018                         | Colombia - Antioquia          | Water              | Empresas Públicas de Medellín - EPM                |
| Connect or normalize the service to 667 aqueduct users, through the Habilitación Viviendas financing program.                                                                                                               | 2018                         | Colombia - Antioquia          | Water              | Empresas Públicas de Medellín - EPM                |
| Connect or normalize the service to 667 sewerage users, through the Habilitación Viviendas financing program.                                                                                                               | 2018                         | Colombia - Antioquia          | Water              | Empresas Públicas de Medellín - EPM                |
| Reach 99.4% universalization in solid waste.                                                                                                                                                                                | 2018                         | Colombia - Antioquia          | Sanitation         | Empresas Públicas de Medellín - EPM                |
| Reach 97.60% universalization in electrical energy.                                                                                                                                                                         | 2018                         | Colombia - Antioquia          | Electrical energy  | Empresas Públicas de Medellín - EPM                |
| Reach 97.93% universalization in electrical energy.                                                                                                                                                                         | 2018                         | Colombia - Norte de Santander | Electrical energy  | Centrales Eléctricas del Norte de Santander - CENS |
| Reach 99.16% universalization in electrical energy.                                                                                                                                                                         | 2018                         | Colombia - Caldas             | Electrical energy  | Central Hidroeléctrica de Caldas - CHEC            |
| Reach 98.81% universalization in electrical energy.                                                                                                                                                                         | 2018                         | Colombia - Quindío            | Electrical energy  | Empresa de Energía del Quindío - EDEQ              |
| Reach 97.67% universalization in electrical energy.                                                                                                                                                                         | 2018                         | Colombia - Santander          | Electrical energy  | Electrificadora de Santander - ESSA                |

| Challenges for 2018                                                                                                                                                                                        | Year in which it is achieved | Scope and coverage            |                   |                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------|-------------------|----------------------------------------------------|
|                                                                                                                                                                                                            |                              | Territory                     | Business          | Company                                            |
| Connect 2,284 new customers to the energy service.                                                                                                                                                         | 2018                         | Colombia - Norte de Santander | Electrical energy | Centrales Eléctricas del Norte de Santander - CENS |
| Connect 11,500 new customers to the energy service.                                                                                                                                                        | 2018                         | Colombia - Caldas             | Electrical energy | Central Hidroeléctrica de Caldas - CHEC            |
| Connect 3,562 new customers to the energy service.                                                                                                                                                         | 2018                         | Colombia - Quindío            | Electrical energy | Empresa de Energía del Quindío - EDEQ              |
| Connect 11,455 new customers to the energy service.                                                                                                                                                        | 2018                         | Colombia - Santander          | Electrical energy | Electrificadora de Santander - ESSA                |
| Connect 78,023 new customers to the energy service.                                                                                                                                                        | 2018                         | Colombia - Antioquia          | Electrical energy | Empresas Públicas de Medellín - EPM                |
| Connect 358 users and customers of rural electrification.                                                                                                                                                  | 2018                         | Colombia - Norte de Santander | Electrical energy | Centrales Eléctricas del Norte de Santander - CENS |
| Carry out the rural electrification of 525 homes through the construction of traditional network and of 23 homes through the solar panel solution of Grupo EPM's coverage project (Rural Electrification). | 2018                         | Colombia - Caldas             | Electrical energy | Central Hidroeléctrica de Caldas - CHEC            |
| Carry out the rural electrification of 127 homes through the construction of traditional network and of 23 homes through the solar panel solution of Grupo EPM's coverage project (Rural Electrification). | 2018                         | Colombia - Quindío            | Electrical energy | Empresa de Energía del Quindío - EDEQ              |
| Achieve 95.70% rural coverage in the area of provision of electrical energy service.                                                                                                                       | 2018                         | Colombia - Santander          | Electrical energy | Electrificadora de Santander - ESSA                |
| Connect 4,000 users and customers of rural electrification.                                                                                                                                                | 2018                         | Colombia - Antioquia          | Electrical energy | Empresas Públicas de Medellín - EPM                |
| Connect 250 customers through the Habilitación Viviendas program.                                                                                                                                          | 2018                         | Colombia - Norte de Santander | Electrical energy | Centrales Eléctricas del Norte de Santander - CENS |
| Connect 1,235 customers through the Habilitación Viviendas program.                                                                                                                                        | 2018                         | Colombia - Caldas             | Electrical energy | Central Hidroeléctrica de Caldas - CHEC            |

| Challenges for 2018                                                                    | Year in which it is achieved | Scope and coverage   |                   |                                       |
|----------------------------------------------------------------------------------------|------------------------------|----------------------|-------------------|---------------------------------------|
|                                                                                        |                              | Territory            | Business          | Company                               |
| Connect 400 customers through the Habilitación Viviendas program.                      | 2018                         | Colombia – Quindío   | Electrical energy | Empresa de Energía del Quindío - EDEQ |
| Increase by 104.45% the Habilitación Viviendas coverage.                               | 2018                         | Colombia – Santander | Electrical energy | Electrificadora de Santander - ESSA   |
| Connect 27,400 customers through the Habilitación Viviendas program.                   | 2018                         | Colombia – Antioquia | Electrical energy | Empresas Públicas de Medellín - EPM   |
| Reach 86.18% universalization in gas.                                                  | 2018                         | Colombia – Antioquia | Gas               | Empresas Públicas de Medellín - EPM   |
| Build 217 km of pipelines.                                                             | 2018                         | Colombia – Antioquia | Gas               | Empresas Públicas de Medellín - EPM   |
| Connect 53,722 new customers to the system.                                            | 2018                         | Colombia – Antioquia | Gas               | Empresas Públicas de Medellín - EPM   |
| Connect 42,079 homes in strata 1, 2, and 3 through the Habilitación Viviendas program. | 2018                         | Colombia – Antioquia | Gas               | Empresas Públicas de Medellín - EPM   |
| Connect 7,096 customers outside of Valle de Aburrá.                                    | 2018                         | Colombia – Antioquia | Gas               | Empresas Públicas de Medellín - EPM   |
| Build 137 km of pipelines outside of Valle de Aburrá.                                  | 2018                         | Colombia – Antioquia | Gas               | Empresas Públicas de Medellín - EPM   |

## GRI Standards and EPM indicators

- 103-1** Explanation of the material topic and its boundary.
- 103-2** The management approach and its components.
- 103-3** Evaluation of the management approach.
- 203-2** Significant indirect economic impacts.
- EU26** Percentage of unserved population in areas with distribution license.

## Sustainable Development Goals



## Service coverage and expansion

Grupo EPM's corporate purpose is to improve coverage, that is, universalize our services in the territories where we are present. The group seeks to meet that purpose through joint work and coordination of variables such as the connection of new customers and the connection of those populations that today cannot access the service due to technical or legal limitations in their locations.

### Management in 2017

2017 was a favorable year for EPM given the growth in the number of customers of the water supply, sewerage, garbage collection, energy, and gas services. Thanks to the social programs such as *Habitación Vivienda* (Habitable Homes) and *Unidos por el Agua* (United for Water) implemented in Medellín and to the expansion of networks, it was possible to reach a coverage of over 95% in the territories where the company is present and to contribute to the improvement of the quality of life of the people who live there. Likewise, Emvarias collected waste in difficult access areas of Medellín and collected special waste such as batteries, lights, medicines, cooking oil, among others, avoiding the pollution of land and water resources.

The installation of 1,156 meters of overhead pipelines to supply the water service to 350 customers and users of the Urabá region contributes to increasing the service coverage and transforming the lives of its inhabitants.

The number of customers of Grupo EPM with the water supply service increased by 3.4% compared to 2016, for a total of 1,477,534. EPM reached a total of 1,186,434 customers and a coverage of 96.13%. The management carried out with the *Unidos por el Agua* program contributed to improve the quality of life of 6,513 people living in Medellín in homes that were built some time ago, but for technical or legal reasons did not have the service previously. The number of customers of Grupo EPM with the sewerage service increased by 2.9% compared to 2016, for a total of 1,419,400 customers. As for EPM, the total number of customers is 1,153,683 with a coverage of 94.08%. In 2017, the company made progress in the construction of *Interceptor Sur* (South Interceptor), which consists in transporting wastewater from the municipalities of Caldas and La Estrella to the San Fernando WWTP. Progress was also made for the Caldas - La Estrella interconnection, which consists in the design and construction of a pumping system, pipelines, and storage tanks, and for the San Antonio de Prado - La Estrella Expansion interconnection. Emvarias increased the service provision in difficult access areas serving around 3,500 homes. In addition, it collected around 1,377 kg of special waste such as batteries, lights, medicines, cooking oil, among others, avoiding the pollution of land and water resources. It partnered with the private sector to provide citizens with the adequate waste disposal and create a new reclaiming culture in the city. Moreover, it created *Rutarecicla*, a new service of selective collection of reclaimed waste. With this service, the company takes solid waste to a classification and reclaiming station (abbreviated ECA in Spanish), instead of transporting it and dispose of it in the sanitary landfill. The service began operations in the district 14 of Medellín with four differentiated vehicles.

The number of customers of Grupo EPM for the energy service increased by 3.3% compared to 2016, for a total of 6,367,752. EPM reached a total of 2,368,457 customers and a coverage of 97.07%. The continuation of the *Habilitación Viviendas* program favored low-income families with the construction and financing of connections or derivations for users, as well as the internal installations according to their needs. The connection of customers was above the planning and the management of the loss project to connect customers in areas with technical difficulties or restrictions also helped expanding the service coverage.

The number of customers in the gas service increased by 6.3% compared to 2016, for a total of 1,132,329 customers and a coverage of 82.75%. This growth was the result of accomplishing 124% the goal of year in customers connected and the growth by 16% of customers located in areas with gas infrastructure. One of the most important achievements in this field was the development of ring extensions in an unconventional way, with engineering solutions that made it possible to serve more than 3,000 customers and users in Las Independencias, in the district 13 of Medellín. In addition, within the framework of the *Parques del Río* project, progress was made in the construction of 2,000 meters of new pipelines to make the connections without interrupting the service.

| Water supply and sanitation service coverage - Grupo EPM |              |        |        |            |        |        |
|----------------------------------------------------------|--------------|--------|--------|------------|--------|--------|
| Company                                                  | Water supply |        |        | Sanitation |        |        |
|                                                          | 2015         | 2016   | 2017   | 2015       | 2016   | 2017   |
| <b>EPM</b>                                               | >99.5*       | 95.09% | 96.13% | >99.5*     | 93%    | 94.08% |
| <b>Aguas del Oriente</b>                                 | 99.80%       | 100%   | 100%   | 100%       | 100%   | 100%   |
| <b>Aguas Regionales</b>                                  |              |        |        |            |        |        |
| Western Region                                           | 99.10%       | 100%   | 98.10% | 88%        | 89.61% | 87.80% |
| Urabá Region                                             | 88.74%       | 89%    | 87.70% | 70.13%     | 68.04% | 68.10% |
| <b>Aguas de Malambo</b>                                  | 99.60%       | 90.19% | 91%    | 87.71%     | 74.13% | 73.80% |
| <b>Adasa</b>                                             | 100%         | 100%   | 100%   | 99.80%     | 99.80% | 99.80% |
| <b>Emvarias</b>                                          | 0            | 0      | 0      | 99%        | 99%    | 99.30% |

| Energy service coverage - Grupo EPM |        |        |        |
|-------------------------------------|--------|--------|--------|
| Company                             | 2015   | 2016   | 2017   |
| EPM                                 | 99.60% | 99%    | 97.07% |
| CHEC                                | 99.82% | 99.83% | 99.18% |
| ESSA                                | 97.76% | 98.16% | 97.35% |
| CENS                                | 97.61% | 97.84% | 96.70% |
| EDEQ                                | 99%    | 99%    | 98.40% |
| Delsur                              | 87%    | 87%    | 87%    |
| Eegsa                               | 99.37% | 99.25% | 99.20% |
| ENSA                                | 93.10% | 94.74% | 96.30% |

| Gas service coverage - EPM |        |        |        |
|----------------------------|--------|--------|--------|
| Company                    | 2015   | 2016   | 2017   |
| <b>EPM</b>                 | 70.59% | 77.20% | 82.75% |

The coverage reported in 2017 for the water supply, sewerage, energy, and gas services in the Colombian territory corresponds to EPM's internal measurement of universalization.

| Water supply and sewerage network expansion - Grupo EPM |              |       |       |          |       |       |
|---------------------------------------------------------|--------------|-------|-------|----------|-------|-------|
| Company                                                 | Water supply |       |       | Sewerage |       |       |
|                                                         | 2015         | 2016  | 2017  | 2015     | 2016  | 2017  |
| <b>EPM</b>                                              |              |       |       |          |       |       |
| Total primary distribution networks (km)                | 261          | 263   | 283   | 360      | 384   | 388   |
| Total secondary distribution networks (km)              | 3,462        | 3,513 | 3,583 | 4,166    | 4,179 | 4,228 |
| <b>Aguas del Oriente</b>                                |              |       |       |          |       |       |
| Total primary distribution networks (km)                | 2            | 2     | 2     | 16       | 16    | 16    |
| Total secondary distribution networks (km)              | 29           | 29    | 30    | 4        | 4     | 4     |



| Water supply and sewerage network expansion - Grupo EPM |              |       |       |          |       |       |
|---------------------------------------------------------|--------------|-------|-------|----------|-------|-------|
| Company                                                 | Water supply |       |       | Sewerage |       |       |
|                                                         | 2015         | 2016  | 2017  | 2015     | 2016  | 2017  |
| <b>Aguas Regionales</b>                                 |              |       |       |          |       |       |
| <b>Western Region</b>                                   |              |       |       |          |       |       |
| Total primary distribution networks (km)                | 36           | 36    | 36    | 11       | 11    | 12    |
| Total secondary distribution networks (km)              | 158          | 158   | 160   | 52       | 52    | 52    |
| <b>Urabá Region</b>                                     |              |       |       |          |       |       |
| Total primary distribution networks (km)                | 37           | 37    | 38    | 67       | 67    | 69    |
| Total secondary distribution networks (km)              | 427          | 436   | 440   | 319      | 321   | 323   |
| <b>Aguas de Malambo</b>                                 |              |       |       |          |       |       |
| Total primary distribution networks (km)                | 10           | 10    | 14    | 32       | 32    | 32    |
| Total secondary distribution networks (km)              | 166          | 166   | 167   | 84       | 84    | 84    |
| <b>Adasa</b>                                            |              |       |       |          |       |       |
| Total primary distribution networks (km)                | 143          | 143   | 161   | 161      | 161   | 178   |
| Total secondary distribution networks (km)              | 1,140        | 1,148 | 1,119 | 903      | 921   | 896   |
| <b>Total networks of water service companies</b>        |              |       |       |          |       |       |
| Total primary distribution networks (km)                | 489          | 491   | 534   | 647      | 671   | 695   |
| Total secondary distribution networks (km)              | 5,382        | 5,450 | 5,499 | 5,528    | 5,561 | 5,587 |

A primary distribution network or matrix is a pipeline system that makes up the main service grid of a population and distributes water from the pipeline, treatment plant, or compensation tanks to the secondary networks. It maintains the basic pressures of service for the correct operation of the entire system and, generally, does not distribute water en route.

A secondary distribution network is the part of the distribution network derived from the primary network. It distributes water to the neighborhoods and urbanizations of the city, and can distribute water en route.

| Energy network expansion - Grupo EPM              |       |       |       |
|---------------------------------------------------|-------|-------|-------|
| Company                                           | 2015  | 2016  | 2017  |
| <b>EPM</b>                                        |       |       |       |
| Total primary distribution networks (km)          | 1,188 | 1,320 | 1,031 |
| Total secondary distribution networks (km)        | 335   | 478   | 1,051 |
| <b>CHEC</b>                                       |       |       |       |
| Total primary distribution networks (km)          | 30    | 27    | 22    |
| Total secondary distribution networks (km)        | 38    | 45    | 62    |
| <b>ESSA</b>                                       |       |       |       |
| Total primary distribution networks (km)          | 19    | 21    | 22    |
| Total secondary distribution networks (km)        | 30    | 31    | 32    |
| <b>CENS</b>                                       |       |       |       |
| Total primary distribution networks (km)          | 12    | 47    | 58    |
| Total secondary distribution networks (km)        | 24    | 22    | 105   |
| <b>EDEQ</b>                                       |       |       |       |
| Total primary distribution networks (km)          | 6     | 27    | 13    |
| Total secondary distribution networks (km)        | 11    | 41    | 36    |
| <b>Delsur</b>                                     |       |       |       |
| Total primary distribution networks (km)          | 91    | 38    | 48    |
| Total secondary distribution networks (km)        | 7     | -48   | -14   |
| <b>Eegsa</b>                                      |       |       |       |
| Total primary distribution networks (km)          | 135   | 115   | 144   |
| Total secondary distribution networks (km)        | 180   | 162   | 176   |
| <b>ENSA</b>                                       |       |       |       |
| Total primary distribution networks (km)          | 476   | 474   | 538   |
| Total secondary distribution networks (km)        | 300   | 280   | 187   |
| <b>Total networks of energy service companies</b> |       |       |       |
| Total primary distribution networks (km)          | 1,958 | 2,069 | 1,876 |
| Total secondary distribution networks (km)        | 924   | 1,011 | 1,635 |

The figure corresponds to the network length built each year.

| Gas service expansion - EPM                   |       |       |       |
|-----------------------------------------------|-------|-------|-------|
|                                               | 2015  | 2016  | 2017  |
| Steel line (km)                               | 87    | 89    | 88    |
| Polyethylene pipelines built in the year (km) | 775   | 226   | 150   |
| Total polyethylene pipelines (km)             | 7,152 | 7,378 | 7,939 |

*The figure corresponds to the network length built each year. The total for 2017 includes the kilometers of pipelines acquired with the purchase of Surtigas and Lineagas.*

## GRI Standards and EPM indicators

**203-2** Significant indirect economic impacts.

**EU26** Percentage of unserved population in areas with distribution license.

# Rural Electrification

The Rural Electrification program is developed within every Grupo EPM's Colombian company in order to expand the electrical energy service coverage to rural areas. Investments are made with resources from the company and the participation of public institutions, the Fund for the Electrification of Interconnected Rural Areas (abbreviated FAER in Spanish), and private institutions.

## Management in 2017

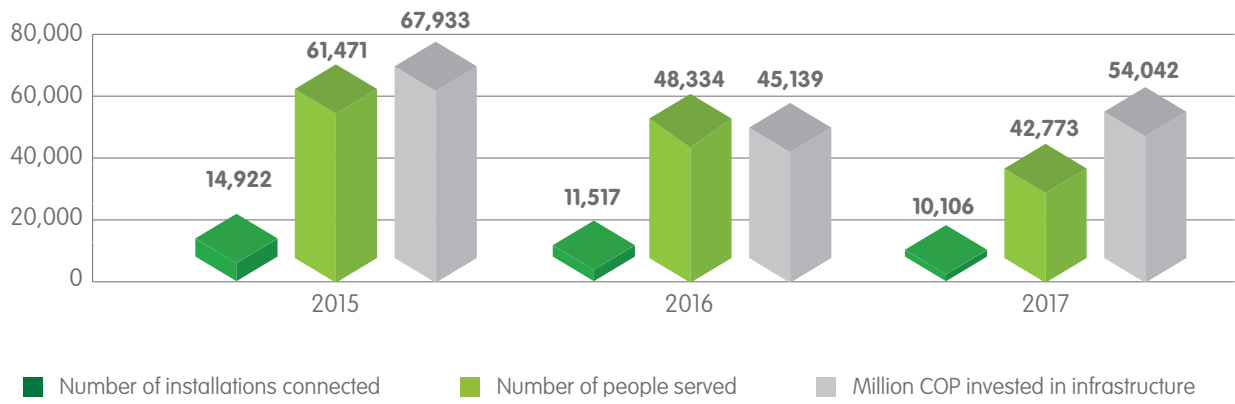
In 2017, Grupo EPM accomplished the connection of 10,106 installations in rural areas, benefiting approximately 42,773 people, with an approximate investment of COP 54,042 million.

The work of CHEC stands out for its 185% increase in the connections located in rural areas compared to the previous year. It provided the energy service to 174 homes, benefiting 696 people with an infrastructure investment of COP 1,158 million.

| Rural electrification                  |        |        |        |
|----------------------------------------|--------|--------|--------|
| Company                                | 2015   | 2016   | 2017   |
| <b>EPM</b>                             |        |        |        |
| Number of facilities connected         | 5,778  | 2,184  | 2,292  |
| Number of people served                | 23,112 | 9,348  | 9,168  |
| Million COP invested in infrastructure | 34,033 | 17,165 | 20,205 |
| <b>CHEC</b>                            |        |        |        |
| Number of facilities connected         | 166    | 61     | 174    |
| Number of people served                | 830    | 244    | 696    |
| Million COP invested in infrastructure | 791    | 205    | 1,158  |
| <b>ESSA</b>                            |        |        |        |
| Number of facilities connected         | 4,392  | 6,803  | 5,033  |
| Number of people served                | 17,568 | 27,212 | 20,132 |
| Million COP invested in infrastructure | 26,396 | 22,280 | 29,410 |

| <b>Rural electrification</b>                   |             |             |             |
|------------------------------------------------|-------------|-------------|-------------|
| <b>Company</b>                                 | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| <b>CENS</b>                                    |             |             |             |
| Number of facilities connected                 | 3,655       | 825         | 258         |
| Number of people served                        | 14,620      | 3,300       | 1,032       |
| Million COP invested in infrastructure         | 3,508       | 837         | 2,863       |
| <b>EDEQ</b>                                    |             |             |             |
| Number of facilities connected                 | 19          | 11          | -           |
| Number of people served                        | 45          | 53          | -           |
| Million COP invested in infrastructure         | 314         | 185         | -           |
| <b>Delsur</b>                                  |             |             |             |
| Number of facilities connected                 | 261         | 739         | 1,307       |
| Number of people served                        | 2,175       | 3,827       | 4,725       |
| Million COP invested in infrastructure         | 315         | 421         | 407         |
| <b>Eegsa</b>                                   |             |             |             |
| Number of facilities connected                 | 517         | 774         | 1,042       |
| Number of people served                        | 2,585       | 3,870       | 7,020       |
| Million COP invested in infrastructure         | 107         | 3,000       | N.D.        |
| <b>ENSA</b>                                    |             |             |             |
| Number of facilities connected                 | 134         | 120         |             |
| Number of people served                        | 536         | 480         |             |
| Million COP invested in infrastructure         | 2,529       | 1,045       |             |
| <b>Total customers of the energy companies</b> |             |             |             |
| Number of facilities connected                 | 14,922      | 11,517      | 10,106      |
| Number of people served                        | 61,471      | 48,334      | 42,773      |
| Million COP invested in infrastructure         | 67,993      | 45,139      | 54,042      |

## Rural electrification in Grupo EPM's affiliates



## GRI Standards and EPM indicators

**203-2** Significant indirect economic impacts.

## Account financing and defaulting

The accounts receivable financing service aims at regularizing defaulting customers by means of financing payable items at low interest rates in the long term.

Customers delay the payment of the bills and, due to regulations and system fairness, their services are disconnected until they regularize their situation. Once they have paid or have made a payment agreement, the service is reconnected within 24 business hours. Defaulting is more likely to appear in low-income populations (socio-economic strata 1, 2, and 3) with safety problems, due to structural issues of the country.

### Management in 2017

All the Colombian companies of the group managed the portfolio from the first day of default, using the Collection Management agreement, which includes differentiated strategies according to the type of debt, the amount, the risk profile of customers and users, and the defaulting age. In addition, increased the use of risk models in Portfolio Management, developing statistical models whose objective is to optimize suspension activities in the field, taking into account the probability of payment associated with the characteristics of each service.

The group consolidated the portfolio management in a conforming manner, with different agreements that strengthened the management with customers in the field, and with operating models that integrated the risk analysis into the suspension operations, allowing the prioritization of activities and the use of resources in other tasks such as tracking suspended customers to control unauthorized reconnections, thus seeking to control the deterioration of the portfolio.

| Defaulting in water supply - Grupo EPM |               |               |               |
|----------------------------------------|---------------|---------------|---------------|
| Business                               | 2015          | 2016          | 2017          |
| <b>EPM</b>                             |               |               |               |
| Residential                            | 21,853        | 17,548        | 17,744        |
| Nonresidential                         | 3,453         | 2,873         | 3,203         |
| <b>Total</b>                           | <b>25,306</b> | <b>20,421</b> | <b>20,947</b> |
| Defaulting %                           | 2.29%         | 1.78%         | 1.76%         |
| <b>Aguas Regionales</b>                |               |               |               |
| <b>Urabá Region</b>                    |               |               |               |
| Residential                            | 5,075         | 4,894         | 5,672         |
| Nonresidential                         | 581           | 611           | 672           |
| <b>Total</b>                           | <b>5,656</b>  | <b>5,505</b>  | <b>6,344</b>  |
| Defaulting %                           | 8.81%         | 8.04%         | 8.85%         |
| <b>Western Region</b>                  |               |               |               |
| Residential                            | 293           | 369           | 366           |
| Nonresidential                         | 128           | 156           | 162           |
| <b>Total</b>                           | <b>421</b>    | <b>525</b>    | <b>528</b>    |
| Defaulting %                           | 2.68%         | 3.12%         | 2.98%         |
| <b>Aguas del Oriente</b>               |               |               |               |
| Residential                            | 33            | 50            | 38            |
| Nonresidential                         | 9             | 30            | 13            |
| <b>Total</b>                           | <b>42</b>     | <b>80</b>     | <b>51</b>     |
| Defaulting %                           | 0.94%         | 1.71%         | 1.05%         |
| <b>Aguas de Malambo</b>                |               |               |               |
| Residential                            | 2,118         | 2,385         | 3,981         |
| Nonresidential                         | 36            | 43            | 53            |
| <b>Total</b>                           | <b>2,154</b>  | <b>2,428</b>  | <b>4,034</b>  |
| Defaulting %                           | 9.9%          | 10.9%         | 17.55%        |
| <b>Adasa</b>                           |               |               |               |
| Residential                            | 0             | 9,621         | 7,025         |
| Nonresidential                         | -             | 425           | 355           |
| <b>Total</b>                           | <b>0</b>      | <b>10,046</b> | <b>7,380</b>  |
| Defaulting %                           | -             | 5.85%         | 4.19%         |
| <b>Water companies total</b>           |               |               |               |
| Residential                            | 29,372        | 34,867        | 34,826        |
| Nonresidential                         | 4,207         | 4,138         | 4,458         |
| <b>Total</b>                           | <b>33,579</b> | <b>39,005</b> | <b>39,284</b> |



| Defaulting percentage in water supply - Grupo EPM |       |        |        |
|---------------------------------------------------|-------|--------|--------|
| Company                                           | 2015  | 2016   | 2017   |
| <b>EPM</b>                                        | 2.29% | 1.78%  | 1.76%  |
| <b>Aguas Regionales</b>                           |       |        |        |
| Western Region                                    | 2.68% | 3.12%  | 2.98%  |
| Urabá Region                                      | 8.81% | 8.04%  | 8.85%  |
| <b>Aguas del Oriente</b>                          | 0.94% | 1.71%  | 1.05%  |
| <b>Aguas de Malambo</b>                           | 9.87% | 10.95% | 17.55% |
| <b>Emvarias</b>                                   | 0.00% | 0.00%  | 0.00%  |
| <b>Adasa</b>                                      | N.D.  | 5.85%  | 4.19%  |
| <b>Ticsa</b>                                      | 0.00% | 0.00%  | 0.00%  |

| Defaulting in energy - Grupo EPM |               |               |               |
|----------------------------------|---------------|---------------|---------------|
| Company                          | 2015          | 2016          | 2017          |
| <b>EPM</b>                       |               |               |               |
| Residential                      | 52,343        | 50,001        | 53,926        |
| Nonresidential                   | 7,883         | 7,566         | 8,215         |
| <b>Total</b>                     | <b>60,226</b> | <b>57,567</b> | <b>62,141</b> |
| Defaulting %                     | 2.7%          | 2.5%          | 2.6%          |
| <b>CHEC</b>                      |               |               |               |
| Residential                      | 3,602         | 3,484         | 3,053         |
| Nonresidential                   | 777           | 739           | 564           |
| <b>Total</b>                     | <b>4,379</b>  | <b>4,223</b>  | <b>3,617</b>  |
| Defaulting %                     | 0.96%         | 0.91%         | 0.76%         |
| <b>ESSA</b>                      |               |               |               |
| Residential                      | 11,768        | 14,507        | 16,299        |
| Nonresidential                   | 2,140         | 2,321         | 2,455         |
| <b>Total</b>                     | <b>13,908</b> | <b>16,828</b> | <b>18,754</b> |
| Defaulting %                     | 1.91%         | 2.24%         | 2.41%         |
| <b>CENS</b>                      |               |               |               |
| Residential                      | 15,123        | 15,416        | 16,600        |
| Nonresidential                   | 1,780         | 1,942         | 1,792         |
| <b>Total</b>                     | <b>16,903</b> | <b>17,358</b> | <b>18,392</b> |
| Defaulting %                     | 3.72%         | 3.66%         | 3.70%         |

| Defaulting in energy - Grupo EPM  |                |                |                |
|-----------------------------------|----------------|----------------|----------------|
| Business                          | 2015           | 2016           | 2017           |
| <b>EDEQ</b>                       |                |                |                |
| Residential                       | 1,800          | 1,367          | 1,338          |
| Nonresidential                    | 951            | 803            | 805            |
| <b>Total</b>                      | <b>2,751</b>   | <b>2,170</b>   | <b>2,143</b>   |
| Defaulting %                      | 1.59%          | 1.21%          | 1.16%          |
| <b>Delsur</b>                     |                |                |                |
| Residential                       | 3,431          | 3,110          | 3,705          |
| Nonresidential                    | 1,160          | 1,012          | 662            |
| <b>Total</b>                      | <b>4,591</b>   | <b>4,122</b>   | <b>4,367</b>   |
| Defaulting %                      | 1.24%          | 1.09%          | 1.01%          |
| <b>Eegsa</b>                      |                |                |                |
| Residential                       | 4,423          | 5,138          | 6,475          |
| Nonresidential                    | 986            | 960            | 1,615          |
| <b>Total</b>                      | <b>5,409</b>   | <b>6,098</b>   | <b>8,090</b>   |
| Defaulting %                      | 0.47%          | 0.51%          | 0.68%          |
| <b>ENSA</b>                       |                |                |                |
| Residential                       | 103,130        | 71,514         | 67,739         |
| Nonresidential                    | 5,892          | 5,603          | 3,696          |
| <b>Total</b>                      | <b>109,022</b> | <b>77,117</b>  | <b>71,435</b>  |
| Defaulting %                      | 26.00%         | 18.00%         | 14.00%         |
| <b>Total for energy companies</b> |                |                |                |
| Residential total                 | 195,620        | 164,537        | 103,061        |
| Nonresidential                    | 21,569         | 20,946         | 16,196         |
| <b>Total</b>                      | <b>217,189</b> | <b>185,483</b> | <b>119,257</b> |

Corrections were implemented in defaulting data of the affiliate ENSA for the years 2015 and 2016.

| Defaulting percentage in energy affiliates - Grupo EPM |        |        |        |
|--------------------------------------------------------|--------|--------|--------|
| Company                                                | 2015   | 2016   | 2017   |
| EPM                                                    | 2.71%  | 2.51%  | 2.63%  |
| CHEC                                                   | 0.96%  | 0.91%  | 0.76%  |
| ESSA                                                   | 1.91%  | 2.24%  | 2.41%  |
| CENS                                                   | 3.72%  | 3.66%  | 3.70%  |
| EDEQ                                                   | 1.59%  | 1.21%  | 1.16%  |
| Delsur                                                 | 1.24%  | 1.09%  | 1.01%  |
| Eegsa                                                  | 0.47%  | 0.51%  | 0.68%  |
| ENSA                                                   | 26.00% | 18.00% | 14.00% |

## GRI Standards and EPM indicators

**203-2** Significant indirect economic impacts.

# Gas without Borders

EPM's Gas without Borders program takes the pipeline natural gas service to the municipalities in Antioquia located outside of the Medellín's metropolitan area, through compressed natural gas. From pressure reducing stations, the gas is distributed through pipelines to the homes, commercial establishments, and consumption places.

## Management in 2017

In 2017, 15,778 homes were connected, which transformed the lives of 67,530 people in 98 populations of Antioquia, with an investment of COP 20.27 billion.

| Gas without borders            |         |        |        |
|--------------------------------|---------|--------|--------|
| Item / Indicator               | 2015    | 2016   | 2017   |
| Number of facilities connected | 26,095  | 17,255 | 15,778 |
| Number of people served        | 111,687 | 69,020 | 67,530 |
| Million COP invested           | 35,671  | 41,006 | 20,275 |

*Source: Vice Presidency of Gas*

## GRI Standards and EPM indicators

**203-2** Significant indirect economic impacts.

# Habitable Homes

Grupo EPM's Habitable Homes program is a social commitment to fund the basic infrastructure of the energy, gas, and water services for the most vulnerable homes, seeking to improve their conditions. It started in the 60s and is one of the programs with the higher coverage rates. Currently, it is developed for all services: water, sewage, energy, and gas. Habitable Homes is also executed in CHEC, ESSA, and EDEQ.

## Management in 2017

Grupo EPM connected 125,504 homes to the services of water supply, sewerage, energy, and gas, transforming the lives of 499,683 people.

15,829 homes were connected to the water supply service and 15,860, to the sewerage service with an investment of COP 15.13 billion. 36,756 homes were connected to the energy service with an investment of COP 25.9 billion nationwide and 57,059, to the gas service with an investment of COP 20.27 billion.

| Habitable Homes - water supply |        |        |        |
|--------------------------------|--------|--------|--------|
| Item / Indicator               | 2015   | 2016   | 2017   |
| Total facilities connected     | 19,786 | 26,082 | 31,689 |
| Number of people served        | 77,086 | 89,037 | 98,236 |
| Million COP invested           | 14,052 | 18,054 | 15,137 |

Source: Vice Presidency of Water Supply and Sanitation

The individual customers connected by EPM contractors, by means of public social procurement, are included. In both cases, the works are paid through the Habitable Homes funding program.

| <b>Dignifying Homes - energy</b>  |               |               |               |
|-----------------------------------|---------------|---------------|---------------|
| <b>Item / Indicator</b>           | <b>2015</b>   | <b>2016</b>   | <b>2017</b>   |
| <b>EPM</b>                        |               |               |               |
| <b>Total facilities connected</b> | <b>22,231</b> | <b>24,783</b> | <b>24,374</b> |
| Number of people served           | 88,924        | 99,132        | 97,496        |
| Million COP invested              | 16,801        | 21,935        | 21,573        |
| <b>CHEC</b>                       |               |               |               |
| <b>Total facilities connected</b> | <b>1,762</b>  | <b>1,696</b>  | <b>1,632</b>  |
| Number of people served           | 7,048         | 6,784         | 6,528         |
| Million COP invested              | 629           | 694           | 1,023         |
| <b>ESSA</b>                       |               |               |               |
| <b>Total facilities connected</b> | <b>3,745</b>  | <b>4,348</b>  | <b>3,329</b>  |
| Number of people served           | 29,960        | 52,956        | 26,283        |
| Million COP invested              | 712           | 2,504         | 1,917         |
| <b>CENS</b>                       |               |               |               |
| <b>Total facilities connected</b> | <b>6,675</b>  | <b>137</b>    | <b>7,073</b>  |
| Number of people served           | 26,700        | 548           | 28,292        |
| Million COP invested              | 1,084         | 45            | 1,313         |
| <b>EDEQ</b>                       |               |               |               |
| <b>Total facilities connected</b> | <b>886</b>    | <b>947</b>    | <b>348</b>    |
| Number of people served           | 3,544         | 3,788         | 1,392         |
| Million COP invested              | 162           | 174           | 81            |
| <b>Total for energy companies</b> |               |               |               |
| <b>Total facilities connected</b> | <b>35,299</b> | <b>31,911</b> | <b>36,756</b> |
| Number of people served           | 156,176       | 163,208       | 159,991       |
| Million COP invested              | 19,388        | 25,352        | 25,907        |

**Source:** Vice-Presidency of Power Transmission and Distribution.

| Habitable Homes - gas             |               |               |               |
|-----------------------------------|---------------|---------------|---------------|
| Item / Indicator                  | 2015          | 2016          | 2017          |
| <b>Total facilities connected</b> | <b>59,914</b> | <b>56,063</b> | <b>57,059</b> |
| Number of people served           | 256,432       | 237,146       | 241,360       |
| Million COP invested              | 118,989       | 41,796        | 20,275        |

Source: Vice Presidency of Gas.

## GRI Standards and EPM indicators

**203-2** Significant indirect economic impacts.

## Pay According to Your Needs

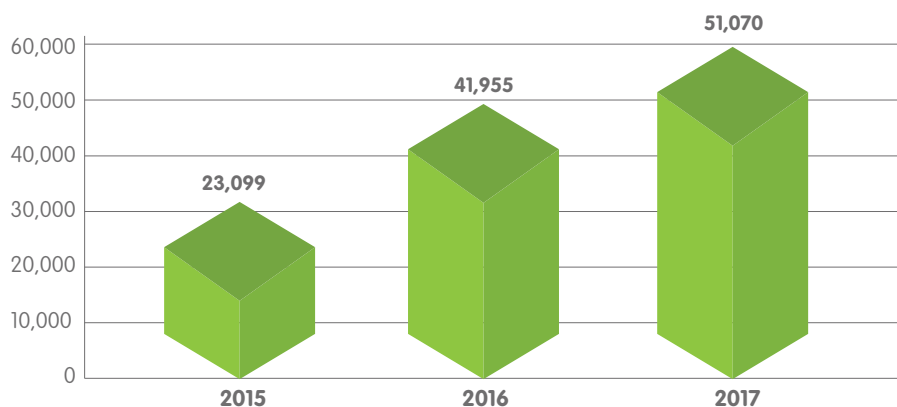
Pay According to Your Needs is a program that allows users to pay the EPM bill up to five installments or partial payments each month, each with a minimum amount depending on the territory. The user must go to one of the payment points and indicate the citizen ID number or the EPM contract number; it is not necessary to present an invoice. With this alternative EPM seeks to improve the quality of life of users, providing them with the possibility of making the payment of public utilities in the way that best fits the family budget and ensuring continuity of the services. For its part, EPM seeks to reduce portfolio rates and reduce operating costs of suspension and reconnection.

### Management in 2017

Since the beginning of this program, 120,708 EPM customers have transformed their lives by paying their bills according to their family income. 51,070 customers connected in 2017.

The goal is that the families in the areas of the affiliates also enjoy the benefits of this program. That is why in 2017 ESSA, CENS, and Aguas de Oriente led the process of approval and implementation of the Pay According to Your Needs program to begin operations in 2018.

Pay According to Your Needs customers



Source: Commercial Vice Presidency

### GRI Standards and EPM indicators

**203-2** Significant indirect economic impacts.

## Public power stacks and community meters

Community water meters and public power stacks are non-conventional ways of providing services to sectors in which, due to restrictions to install networks, it is not possible to have individual meters. Collective meters are installed to extend the service to homes, and users pay the average consumption of the stratum to which they belong.

### Management in 2017

Thanks to the initiative of "Community Supply (differential schemes)" that is part of the United for Water program, 1,193 homes located in incompletely developed settlements were benefited in 2017 with water supply and sewerage on a temporary basis.

In 2017, EPM installed seven community meters in the sectors of Villatina, Carambolas, La Aguada, and La Gabriela. EPM started preliminary technical and social activities in the sectors of La Honda, La Cruz, Bello Oriente, Las Granjas, and Manrique la Esmeralda. The quality of life of the families was improved by facilitating access to the water supply and sewerage services. The service coverage was expanded. The development of the communities was encouraged. The geological risk was mitigated by improving facilities and reducing water leaks. A high-quality parameter service was guaranteed.

Four community meters were installed in three camps in Antofagasta, Chilean territory of the subsidiary Adasa. Finally, the 417 public power stacks benefited 1,668 people in Antioquia with an investment of COP 1.43 billion.



| <b>Water community meters</b>    |             |             |             |
|----------------------------------|-------------|-------------|-------------|
| <b>Item / Indicator</b>          | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| <b>EPM</b>                       |             |             |             |
| Number of meters connected       | 5           | 18          | 7           |
| Number of people served          | 1,200       | 8,832       | 5,512       |
| Investment (million COP)         | 70          | 2,335       | 4,100       |
| <b>Aguas Regionales</b>          |             |             |             |
| <b>Urabá Region</b>              |             |             |             |
| Number of meters connected       | N.A.        | 10          | N.A.        |
| Number of people served          | N.A.        | 3,360       | N.A.        |
| Investment (million COP)         | N.A.        | 19          | N.A.        |
| <b>Adasa</b>                     |             |             |             |
| Number of meters connected       | N.A.        | N.A.        | 4           |
| Number of people served          | N.A.        | N.A.        | 519         |
| Investment (million COP)         | N.A.        | N.A.        | 73          |
| <b>Total for water companies</b> |             |             |             |
| Number of meters connected       | 5           | 28          | 11          |
| Number of people served          | 1,200       | 12,192      | 6,031       |
| Investment (million COP)         | 70          | 2,354       | 4,173       |

**Source:** Vice Presidency of Water Supply and Sanitation

| Public stacks - Energy affiliates |        |       |       |
|-----------------------------------|--------|-------|-------|
| Item / Indicator                  | 2015   | 2016  | 2017  |
| <b>EPM</b>                        |        |       |       |
| Number of meters connected        | 429    | 420   | 417   |
| Number of people served           | 1,716  | 1,680 | 1,668 |
| Investment (million COP)          | 2,161  | 1,175 | 1,432 |
| <b>ESSA</b>                       |        |       |       |
| Number of meters connected        | 27     | 19    | 8     |
| Number of people served           | 10,011 | 4,896 | 3,484 |
| Investment (million COP)          | 0      | 0     | 0     |
| <b>Total for energy companies</b> |        |       |       |
| Number of meters connected        | 456    | 439   | 425   |
| Number of people served           | 11,727 | 6,576 | 5,152 |
| Investment (million COP)          | 2,161  | 1,175 | 1,432 |

Source: Vice-Presidency of Power Transmission and Distribution

## GRI Standards and EPM indicators

**203-2** Significant indirect economic impacts.

# Unserved population

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Unserved populations are those settlements where technical or legal issues limit the provision of the service, such as those located in high-risk areas or outside the perimeters of the land use plans (LUPs). The solutions often exceed the exclusive scope of the companies providing the service; therefore, the involvement of multiple actors becomes necessary.

## Stakeholders' vision

Given its purpose and capabilities, Grupo EPM is expected to exert leadership by calling other stakeholders with skills and capabilities to propose solutions to provide the service.

## Relevance

Because of the high social value for the group's companies and stakeholders and because they have a major impact on building sustainable and competitive territories, unserved populations acquire the status of independent material topics.

Given its purpose and capabilities, Grupo EPM is a stakeholder responsible for convening other stakeholders to find solutions aimed at unserved population. Also, this is a defining aspect of poverty, related directly to the group's businesses, and consequently affects the group in ethical and reputational terms as well as in non-technical losses. This is also worsened by environmental conditions such as conflicts between neighbors or increased geological risk in the case of water services.

## Risk in sustainability associated with this topic

- Lack of public utilities service for the population settled outside the perimeters of the LUPs or in high risk areas.

For more detailed information on the risk analysis associated with material topics, see Material aspects and boundaries (General information).

## Main achievements

| Goals for 2017                                                                                                                         | Achievements in 2017                                                                                           | Accomplishment |
|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------|
| As of December 2017, it was expected to have 6,690 water supply connections in existing homes that do not have access to this service. | As of December 2017, EPM connected 6,379 customers to the water supply service, accomplishing 95% of the goal. | Partial        |
| As of December 2017, it was expected to have 6,690 sewerage connections in existing homes that do not have access to this service.     | As of December 2017, EPM connected 6,429 customers to the sewerage service, accomplishing 96% of the goal.     | Partial        |
| As of December 2017, it was expected to have 2,000 energy connections in existing homes that do not have access to this service.       | As of December 2017, EPM connected 4,764 customers to the energy service, accomplishing 238% of the goal.      | Total          |
| As of December 2017, it was expected to have 2,100 gas connections in existing homes that do not have access to this service.          | As of December 2017, EPM connected 5,662 customers to the gas service, accomplishing 270% of the goal.         | Total          |

## Challenges

| Challenge                                                                                                               | Year in which it is achieved | Scope and coverage   |              |                                     | Achievement indicator                                                                  |
|-------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|--------------|-------------------------------------|----------------------------------------------------------------------------------------|
|                                                                                                                         |                              | Territory            | Business     | Company                             |                                                                                        |
| As of December 2018, achieve 11,650 water supply connections in existing homes that do not have access to this service. | 2018                         | Colombia – Antioquia | Water supply | Empresas Públicas de Medellín - EPM | Number of existing homes connected / goal of number of existing homes without service. |
| As of December 2018, achieve 11,650 sewerage connections in existing homes that do not have access to this service.     | 2018                         | Colombia – Antioquia | Sanitation   | Empresas Públicas de Medellín - EPM | Number of existing homes connected / goal of number of existing homes without service. |

| Challenge                                                                                                        | Year in which it is achieved | Scope and coverage   |                   |                                     | Achievement indicator                                                                  |
|------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|-------------------|-------------------------------------|----------------------------------------------------------------------------------------|
|                                                                                                                  |                              | Territory            | Business          | Company                             |                                                                                        |
| As of December 2018, achieve 1,000 energy connections in existing homes that do not have access to this service. | 2018                         | Colombia – Antioquia | Electrical energy | Empresas Públicas de Medellín - EPM | Number of existing homes connected / goal of number of existing homes without service. |
| As of December 2018, achieve 1,900 gas connections in existing homes that do not have access to this service.    | 2018                         | Colombia – Antioquia | Gas               | Empresas Públicas de Medellín - EPM | Number of existing homes connected / goal of number of existing homes without service. |

## Management in 2017

Thanks to the joint work of EPM with the municipality of Medellín, the Social Institute for Housing and Habitat of Medellín (Isvimed), the Enterprise of Urban Development (EDU), among other organizations, it was possible to transform 23,234 homes with the services of energy, gas, sewerage, and water supply.

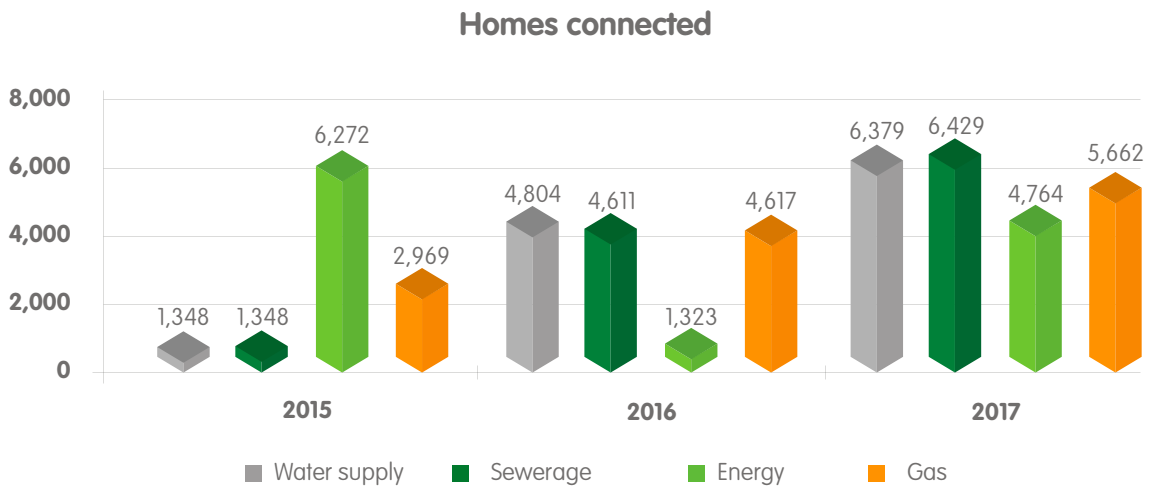
Since the beginning of the Unidos por el Agua (United for Water) program, 11,317 homes that were built a long time ago and did not have public water supply and sewerage services have been benefited. In addition, their environment was improved with infrastructure and public space works and their buildings were recognized with a process of legalization and independence of domiciliary public utilities.

In 2017, EPM contributed to the improvement of quality of life of people living in homes that did not have the services due to technical or legal limitations. The contribution consisted in connecting 6,379 customers to the water supply service, 6,429 to the sewerage service, 4,764 to the energy service, and 5,662 to the gas service. The accomplishment for the year was 133%.

| Homes connected |               |               |               |
|-----------------|---------------|---------------|---------------|
| Business        | 2015          | 2016          | 2017          |
| Water supply    | 1,348         | 4,804         | 6,379         |
| Sewerage        | 1,348         | 4,611         | 6,429         |
| Energy          | 6,272         | 1,323         | 4,764         |
| Gas             | 2,969         | 4,617         | 5,662         |
| <b>Total</b>    | <b>11,937</b> | <b>15,355</b> | <b>23,234</b> |

Source: Vice Presidencies of Water Supply and Sanitation, Gas, and Power Transmission and Distribution

Connections to the energy service reported in 2015 correspond to those executed in Antioquia. Connections reported in 2016 and 2017 correspond to those carried out in Medellín.



Source: Vice Presidencies of Water Supply and Sanitation, Power Transmission and Distribution, and Gas

## GRI Standards and EPM indicators

**103-1** Explanation of the material topic and its boundary.

**103-2** The management approach and its components.

**103-3** Evaluation of the management approach.

**EPM-12** Solutions for unserved homes.

## Sustainable Development Goals



## Prepaid services

Prepayment is a method for purchasing public utilities that seeks to avoid disconnecting users due to payment difficulties. It is mainly aimed at customers with payment difficulties, especially in the socioeconomic strata 1,2, and 3.

This method enables users to control consumption according to their income and to use public utilities in a more efficient and conscious way. The prepaid offer includes the delivery of a consumption meter on gratuitous loan, installation at no cost, social advice, among other conditions that allow customers to continue enjoying the service.

### Management in 2017

3,934 new connections to the prepaid water supply, for a total of 20,209 customers of this service. Prepaid energy received 22,084 new customers and reached a total of 242,956, representing 10% of the total energy customers.

Promoting the responsible consumption of energy and the reduction of losses are some of the main purposes of ENSA; therefore, it installed 7,736 prepayment meters in 2017.

EPM helps to transform the lives of families with prepaid services, providing them with a better control of their consumption and the possibility of paying services according to their possibilities. In 2017, prepaid water supply customers made an average of 3.72 top-ups per month, for an amount of COP 7,676 and with a consumption of 9.17 m<sup>3</sup> each. 68,465 energy top-ups were made through the UNE pay-phone network, for a total of 424,000 kWh in consumption. Nearly 299,000 customers added COP 2,000 in advance to their accounts in times of emergency, equivalent to 2 million kWh.

| EPM prepaid water                                                 |        |        |        |
|-------------------------------------------------------------------|--------|--------|--------|
| Concept/Indicator                                                 | 2015   | 2016   | 2017   |
| Number of facilities connected                                    | 7,351  | 8,923  | 3,934  |
| Number of people served                                           | 33,080 | 40,153 | 17,703 |
| Million COP invested                                              | 6,707  | 9,896  | 2,939  |
| Average consumption in m <sup>3</sup> per prepayment installation | 9      | 8.6    | 8.3    |
| Average consumption in m <sup>3</sup> per contracted installation | 15     | 12     | 12.1   |

| <b>EPM prepaid energy</b>                              |             |             |             |
|--------------------------------------------------------|-------------|-------------|-------------|
| <b>Concept/Indicator</b>                               | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| Number of facilities connected                         | 19,987      | 25,400      | 22,084      |
| Number of people served                                | 82,346      | 127,000     | 99,378      |
| Million COP invested                                   | 5,035       | 16,164      | 15,617      |
| Average consumption in kWh per prepayment installation | 112         | 118         | 116         |
| Average consumption in kWh per contracted installation | 140         | 172         | 132         |

| <b>ESSA prepaid energy</b>                             |             |             |             |
|--------------------------------------------------------|-------------|-------------|-------------|
| <b>Concept/Indicator</b>                               | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| Number of facilities connected                         | 685         | 3,770       | 4,970       |
| Number of people served                                | 2,740       | 15,080      | 22,365      |
| Million COP invested                                   | 523         | 2,528       | 3,379       |
| Average consumption in kWh per prepayment installation | 112         | 132         | 180         |
| Average consumption in kWh per contracted installation | 141         | 142         | 191         |

## GRI Standards and EPM indicators

**203-2** Significant indirect economic impacts.





**Biodiversity**  


**Grupo·epm®**





## Biodiversity

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For Grupo EPM, biodiversity is the functional basis to preserve essential ecosystem services such as the water resource protection and erosion control. Climate change, deforestation, and river contamination, among others factors, generate higher pressure conditions over water, forests, and natural resources in general. Aware of this, the company is committed to develop a comprehensive management of biodiversity and to ensure protection, restoration, sustainable use, and management of its impacts, mainly on forests, reservoirs, and ecosystems located in the areas of influence of the projects, works, and activities of the businesses of energy, water, and sanitation.

### Stakeholders' vision

Besides the measures taken by Grupo EPM, it is important to form alliances and take part in joint initiatives with other actors of the territory seeking to preserve biodiversity and maintain the goods and services that ecosystems offer. For stakeholders, it allows continuity of the natural capital necessary for the different productive activities and for improving population's quality of life, supply of raw materials, and cultural services, which are crucial to the sustainable development of territories.

### Relevance

Biodiversity itself is highly valuable. It creates high economic, environmental, and social value for Grupo EPM and its stakeholders, since it is the functional basis for the maintenance of the goods and services of support, regulation, and supply; as well as cultural values offered by the ecosystems and necessary to protect water resources and soils, regulate climate, and keep the supply of raw materials, food, and spaces for recreation and enjoyment, among others.

### Risk in sustainability associated with this topic

- Intervention or use of natural resources that affect biodiversity and associated ecosystem services.

For more detailed information on the analysis of risks associated with material topics, see Material aspects and boundaries (General information).

## Main achievements

| Goals                                                                                                                                                                        | Achievements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Accomplishment |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Implement the guidelines for managing and protecting biodiversity in EPM.                                                                                                    | From the discussion of the Integrated Water Resources Management (IWRM) and Integrated Management of Biodiversity and Ecosystem Services (GIBSE) strategies, the interdependence between both strategies was identified, as well as some complementary issues and the opportunity to create synergies and joint work, which led to the agreement to consolidate and consider both strategies as a single strategy for Grupo EPM: EGIRHB. The above derived two milestones for the year 2017: | Total          |
| Define and start the strategy implementation plan, its declaration, and its information system, through the integrated water resources and biodiversity management strategy. | <ol style="list-style-type: none"> <li>1. Dissemination of the IWRM and GIBSE strategies.</li> <li>2. Consolidation of the IWRM and GIBSE strategies.</li> </ol>                                                                                                                                                                                                                                                                                                                             | Total          |
| Disseminate the strategy, define concrete goals by affiliated company, and agree on a monitoring and reporting scheme.                                                       | The initial challenge changed to: consolidate a single strategy for Grupo EPM, that is, the Integrated Water Resources and Biodiversity Management Strategy (EGIRHB).                                                                                                                                                                                                                                                                                                                        | Partial        |
| Take part in the biodiversity strategy proposal for the group and in the definition of specific goals for Antioquia.                                                         | The strategies were consolidated in the document EGIRHB, which also includes management lines, initiatives, and indicator proposals. There is a roadmap for each management line.                                                                                                                                                                                                                                                                                                            | Total          |
| Take part in the biodiversity strategy proposal for the group and in the definition of specific goals for the affiliated companies.                                          | The initial challenge changed to: consolidate a single strategy for Grupo EPM, that is, the Integrated Water Resources and Biodiversity Management Strategy (EGIRHB).                                                                                                                                                                                                                                                                                                                        | Partial        |

## Challenges

| Challenge                                                                                                                              | Year in which it is achieved | Scope and coverage   |                    |           | Achievement indicator                                                        | Progress made in its management in 2017                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|--------------------|-----------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                        |                              | Territory            | Business           | Company   |                                                                              |                                                                                                                                                                              |
| Conduct the study of fauna and flora and the update of coverages in the areas of the Peñol-Guatapé reservoir, Playas, and Termosierra. | 2018                         | Colombia - Antioquia | Electrical energy  | Grupo EPM | Compliance with the work plan.                                               | Agreement with University of Antioquia for integrated management of biodiversity and contract with National University of Colombia for update of coverages and land use.     |
| Implement the GIRHB strategy and the action and monitoring plans.                                                                      | 2018                         | All the territories  | All the businesses | Grupo EPM | Implementation of the strategy and compliance with the work plan.            | The strategies were consolidated in the document EGIRHB and the management lines, initiatives, and indicators were defined. The road map was drawn for each management line. |
| Implement the GIRHB strategy and the group's integrated action plan.                                                                   | 2019                         | All the territories  | All the businesses | Grupo EPM | Implementation of the strategy and compliance with the associated work plan. |                                                                                                                                                                              |

## GRI Standards and EPM indicators

- 103-1** Explanation of the material topic and its boundary.
- 103-2** The management approach and its components.
- 103-3** Evaluation of the management approach.
- 304-1** Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.
- 304-2** Significant impacts of activities, products, and services on biodiversity.
- 304-3** Habitats protected or restored.
- 304-4** IUCN Red List species and national conservation list species with habitats in areas affected by operations.
- EU13** Comparison of biodiversity between compensated habitats and areas affected.
- EPM-01** Conservation areas.

## Sustainable Development Goals



## Preservation and restoration

Given the nature of its activities, EPM depends on some ecosystem services, such as water regulation and sediment control, for its businesses of power generation and drinking water supply. For this reason, the Grupo EPM's companies carry out actions and join forces with other actors by means of alliances, with the purpose of preserving the areas that still have natural forests and performing ecological restoration of areas that require it, either through the establishment of plantations, assistance to natural succession, or planting of native forest species.

Through these actions, the Grupo EPM's companies take part in different inter-institutional spaces for the environmental management of the territory (LUP, POMCA), in order to strengthen systems of protected areas (SIDAP), consolidate regional biological corridors, and implement actions included in the environmental management plans, among others steps. Moreover, ecological restoration is currently being carried out in the forest protection areas of reservoirs and in other lands for protection and offset.

### Management in 2017

In 2017, Grupo EPM made important efforts and alliances for the preservation and restoration of strategic ecosystems.

In the properties of EPM and its affiliated companies, a total of 795.68 km<sup>2</sup> has been reported, of which 694.7 km<sup>2</sup> (87.3%) are located within declared protected areas, buffer zones, or zones with high biodiversity value that have not yet been declared as protected areas. On the other hand, of the total area, 637 km<sup>2</sup> of forests and other natural ecosystems (288.4 km<sup>2</sup>) are being preserved and subjected to active, passive, and functional ecological restoration (408.59 km<sup>2</sup>).

Grupo EPM is aware of the relationship between natural ecosystems and availability of water resources for the generation of energy and the supply of drinking water, which is why it takes diverse actions for preservation of forests, ecological restoration, reforestation, promotion of sustainable uses and practices, and environmental offsets in strategic hydrographic basins (see Water care).

These actions are materialized in different programs, projects, and initiatives of the group, or in alliances with other social and institutional actors of the territories; for example, the forestry development program, the water fund, BanCO2, Payment for Environmental Services (PES), the Aldeas program, the integrated forest management plan, the Quebradas plan (Nuestro Rio framework agreement), the Ruta del Cóndor project, and the conservation lands program (in CHEC).

Consequently, in 2017, the group formed alliances with Cornare, Corantioquia, Corpourabá, AMVA, UNDP, the Antioquia Governor's Office, municipalities, WWF, Corporación Parque Arví, Corporación CuencaVerde, Corporación Centro de Ciencia y Tecnología de Antioquia (CTA), Ascondesarrollo, Fundación Dicar, and Fundación Ecológica Cafetera (FEC), among others. (See Water care).

In the forest protection areas of the reservoirs, EPM performed the forest plantations management. In the intervened sites, new plantations of native species were established, mainly in distant areas of the reservoir and riparian zones.

For its part, CHEC purchased El Edén, a 300-hectare land located in the upper section of the Chinchiná basin, in paramo ecosystems.

For the preservation of forests and strategic natural ecosystems, Grupo EPM worked hand in hand with the environmental authorities and municipalities to achieve the declaration, delimitation, and zoning of protected areas, as well as the formulation and implementation of the respective environmental management plans (EMP). Some areas managed in 2017 were: Las Camelias DRMI, Embalse Peñol DRMI, Guatapé river upper basin, and Cacica Noria DMI. See annex Protected areas:

<http://www.sostenibilidadgrupoepm.com.co/wp-content/uploads/2018/06/Annex-Protected-areas.xlsx>

Thanks to the implementation of BanCO2 and PES programs, Grupo EPM is contributing to the conservation of about 6,115.64 hectares of natural forests located on the lands of 385 beneficiary rural families, with the coordination of the different environmental authorities and through the water fund (Corporación CuencaVerde). These programs include areas for mandatory and voluntary offsets. (See: Water conservation).

## Protected, adjacent, or high-biodiversity areas

| Protected, adjacent or high-biodiversity areas (km <sup>2</sup> ) - Grupo EPM - 2017 |                                                 |                |                                      |        |       |              |        |
|--------------------------------------------------------------------------------------|-------------------------------------------------|----------------|--------------------------------------|--------|-------|--------------|--------|
| Company / Business                                                                   | Protected, adjacent, or high-biodiversity areas |                |                                      | Total  | (%)   | Other areas  | Total  |
|                                                                                      | Declared protected areas                        | Adjacent areas | Non-declared high-biodiversity areas |        |       |              |        |
| EPM - VP of Power Generation                                                         | 180.66                                          | 33.74          | 119.16                               | 333.56 | 48.0% | <b>49.38</b> | 382.94 |
| EPM - VP of Power Transmission and Distribution                                      | 11.63                                           | -              | -                                    | 11.63  | 1.7%  | <b>11.66</b> | 23.29  |
| EPM - VP of Water and Sanitation                                                     | 26.95                                           | 2.69           | -                                    | 29.63  | 4.3%  | <b>0.68</b>  | 30.31  |
| EPM - VP of Ituango Projects                                                         | 83.47                                           | 53.61          | 100.38                               | 237.46 | 34.2% | <b>32.78</b> | 270.24 |
| CHEC - VP of Power Generation                                                        | 42.74                                           | 17.74          | 3.38                                 | 63.86  | 9.2%  | <b>3.13</b>  | 66.99  |

### Protected, adjacent or high-biodiversity areas (km<sup>2</sup>) - Grupo EPM - 2017

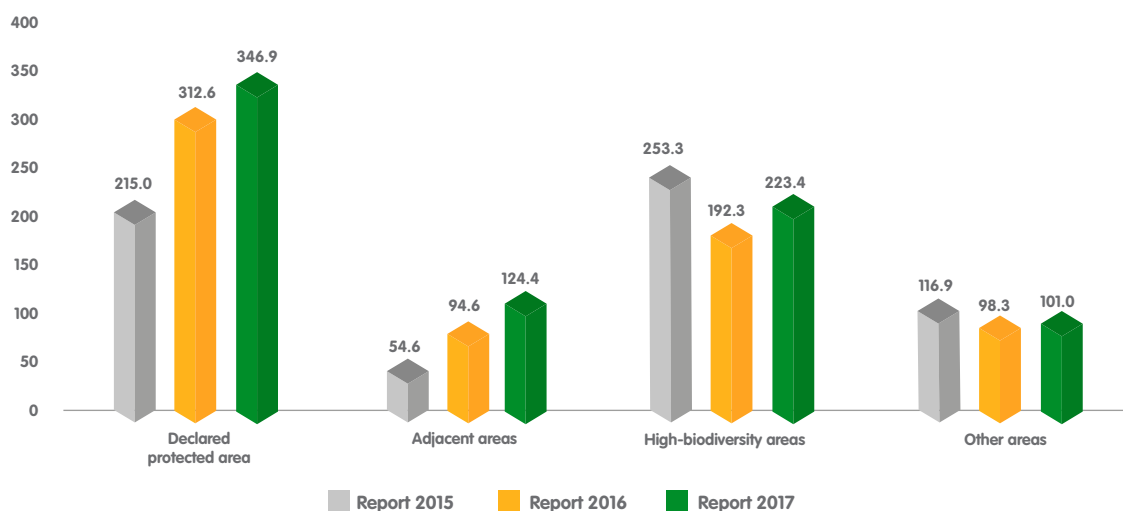
| Protected, adjacent, or high-biodiversity areas  |                          |                |                                      |               |      |               |               |
|--------------------------------------------------|--------------------------|----------------|--------------------------------------|---------------|------|---------------|---------------|
| Company / Business                               | Declared protected areas | Adjacent areas | Non-declared high-biodiversity areas | Total         | (%)  | Other areas   | Total         |
| Emvarias - VP of Water and Sanitation            | -                        | -              | 0.52                                 | 0.52          | 0.1% | <b>3.30</b>   | 3.82          |
| EPM Chile - VP of Power Generation               | 0.11                     | 16.60          | -                                    | 16.70         | 2.4% | <b>0.00</b>   | 16.70         |
| ENSA - VP of Power Transmission and Distribution | 1.32                     | -              | -                                    | 1.32          | 0.2% | <b>0.07</b>   | 1.39          |
| <b>Total</b>                                     | <b>346.88</b>            | <b>124.38</b>  | <b>223.44</b>                        | <b>694.68</b> |      | <b>101.00</b> | <b>795.68</b> |
| <b>Percentage (%)</b>                            | <b>43.6%</b>             | <b>15.6%</b>   | <b>28.1%</b>                         | <b>87.3%</b>  |      | <b>12.7%</b>  | <b>100%</b>   |

Source: IDSOS. (EPM, CHEC, Emvarias, EPM Chile, and ENSA)

The operational areas of Grupo EPM amount to 795.68 km<sup>2</sup>, of which 43% are located within declared protected areas: national natural parks, regional and national forest reserves, integrated management districts, among others. In addition, 15.6% are located in the buffer zones of the protected areas and 28.1% are considered as ecosystems with important biodiversity values that have not yet been declared as protected areas. Grupo EPM works in coordination with the environmental authorities and other actors to expand and strengthen the system of protected areas. See annex Protected areas:

<http://www.sostenibilidadgrupoepm.com.co/wp-content/uploads/2018/06/Annex-Protected-areas.xlsx>

### Protected, adjacent, or high-biodiversity areas – Grupo EPM – 2017



Source: IDSOS (EPM, CHEC, Emvarias, EPM Chile, ENSA)



Trend: For 2017, there is a significant increase in the amount of lands of Grupo EPM located in declared protected areas, adjacent areas, and high-biodiversity areas. These changes are the result of the acquisition of new lands for the Ituango project, the cartographic update of the Porce-Guadalupe and Riogrande biological corridor by CHEC, the entry of information on new power transmission lines, and the purchase of the land of La Pradera landfill by Emvarias. In addition, the group has worked along with the environmental authorities to achieve the declaration and delimitation of protected areas in some strategic ecosystems: Las Camelias DRMI, Embalse Peñol DRMI, Guatapé river upper basin, and Cacica Noria DMI. See annex Protected areas:

<http://www.sostenibilidadgrupoepm.com.co/wp-content/uploads/2018/06/Annex-Protected-areas.xlsx>

## Ecological preservation and restoration areas

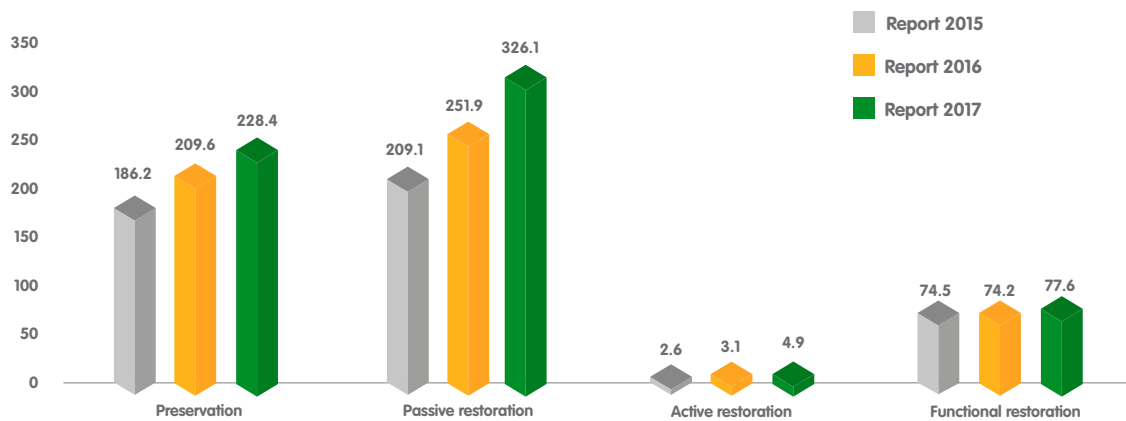
| Ecological preservation and restoration actions (km <sup>2</sup> ) - by company and business |               |                     |                    |                        |              |                |
|----------------------------------------------------------------------------------------------|---------------|---------------------|--------------------|------------------------|--------------|----------------|
| Company / Business                                                                           | Preservation  | Passive restoration | Active restoration | Functional restoration | Total        | Percentage (%) |
| EPM - VP of Power Generation                                                                 | 107.02        | 89.21               | 3.35               | 62.97                  | 262.55       | 41.2%          |
| EPM - VP of Power Transmission and Distribution                                              | 0.00          | 0.29                | 0.00               | 0.00                   | 0.29         | 0.05%          |
| EPM - VP of Water and Sanitation                                                             | 4.32          | 8.52                | 0.22               | 14.55                  | 27.61        | 4.3%           |
| EPM - VP of Ituango Projects                                                                 | 47.64         | 214.26              | 0.00               | 0.00                   | 261.90       | 41.1%          |
| CHEC - VP of Power Generation                                                                | 52.53         | 11.23               | 1.15               | 0.00                   | 64.91        | 10.2%          |
| Emvarias - VP of Water and Sanitation                                                        | 0.52          | 2.58                | 0.20               | 0.00                   | 3.30         | 0.5%           |
| EPM Chile - VP of Power Generation                                                           | 16.30         | 0.00                | 0.00               | 0.06                   | 16.36        | 2.6%           |
| ENSA - VP of Power Transmission and Distribution                                             | 0.08          | 0.00                | 0.00               | 0.00                   | 0.08         | 0.01%          |
| <b>Total</b>                                                                                 | <b>228.41</b> | <b>326.09</b>       | <b>4.92</b>        | <b>77.58</b>           | <b>637.0</b> | <b>100%</b>    |
| <b>Percentage (%)</b>                                                                        | <b>35.9%</b>  | <b>51.2%</b>        | <b>0.8%</b>        | <b>12.2%</b>           | <b>100%</b>  |                |

Source: IDSOS (EPM, CHEC, Emvarias, EPM Chile, ENSA)

Preservation (forests and other natural ecosystems), passive restoration (assistance to natural succession), active restoration (planting of native species trees), and functional restoration (forest plantations).

Grupo EPM is committed to the preservation of natural ecosystems (forests, wetlands, paramos, and deserts), as well as to the (active, passive, and functional) ecological restoration of those areas required to mitigate or compensate impacts or to protect operational infrastructure (reservoirs, plants, stations, landfills). In 2017, the group preserved 228.4 km<sup>2</sup> (35.9% of vegetation covers) of natural ecosystems, 326.1 km<sup>2</sup> (51.2%) of which are located in different stages of succession—from weedy pastures to high stubble—and restored 77.58 km<sup>2</sup> (12.2%) through the establishment of forest plantations and 4.92 km<sup>2</sup> (0.8%) through the planting of native species trees. Highest values can be found between EPM Power Generation and Ituango Project (82.3% in total).

### Ecological preservation and restoration actions (Km<sup>2</sup>) – Grupo EPM



Source: IDSOS (EPM, CHEC, Emvarias, EPM Chile, ENSA)

Trend: For 2017, there is a significant increase in the amount of preservation and passive restoration areas, mainly due to the acquisition of lands in the area of influence of the Ituango project (Colombia), the entry of data on the affiliate Emvarias, and the transition of passive restoration areas to secondary forests. Active and functional restorations also increased slightly as a result of the program of renewal and replacement of forest plantations, and of the environmental offsets of the projects under construction.

### GRI Standards and EPM indicators

- 304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.
- 304-3 Habitats protected or restored.

## Impact management and offset

Grupo EPM, in the development, construction, and operation of its projects, seeks to minimize negative effects and maximize positive impacts on biodiversity and associated ecosystem services.

To this end, environmental restriction analyses (ERA), environmental diagnoses of alternatives (EDA), feasibility studies, and environmental impact assessments (EIA) are conducted since the early stages of the projects aiming, among other things, to cause the lowest possible impact on natural ecosystems. The license or permit granted by the respective environmental authority establishes the environmental management plan (EMP) of the projects, which defines the impacted areas and their corresponding mitigation or offset actions, depending on the type of ecosystem and its vulnerability.

The Grupo EPM's companies are committed to the offset and management of impacts on biodiversity, that is why they comply with the environmental legal requirements and also take voluntary measures (CSR.) In consequence, conservation areas have been established to contribute to the preservation of biodiversity and the sustainability of Grupo EPM and the territories.

### Management in 2017

Grupo EPM protects 559.18 km<sup>2</sup> of forests and natural ecosystems, 106.6 reservoirs, and 74.15 forest plantations that contribute to the conservation of biodiversity. In 2017, the landscape monitoring and cartographic update of the Guadalupe-Porce and Riogrande biological corridor was completed.

Grupo EPM achieved an accumulated offset of 176.96 km<sup>2</sup>, that is, 87% progress of the goal of 202.25 km<sup>2</sup> for environmental offsets in the projects with environmental license in 2017.

EPM rescued 15,654 epiphytes and planted 5,822 trees as part of its forest compensation plan.

**Areas and land uses:** According to the report of EPM and its affiliated companies, as of 2017, the group has a consolidated area of 795.6 km<sup>2</sup> (compared to 697.7 km<sup>2</sup> reported in 2016), of which 559.18 km<sup>2</sup> correspond to forests and natural ecosystems (70%), 106.6 to reservoirs (13%), and 74.15 to forest plantations (10%). This offers a diversity of terrestrial and aquatic ecosystems that contribute significantly to the conservation of biodiversity and the mitigation and offset of the impacts generated for the construction and operation of the projects. The operating infrastructure only corresponds to 4%. As for the companies, EPM Power Generation owns almost half of the reported area (48.1%), followed by Ituango Project (34%), and CHEC (8.4%).

**Landscape monitoring:** Regarding power generation, EPM carried out the cartographic update of the Guadalupe-Porce and Riogrande biological corridor, in order to comply with the environmental licenses of Porce II and III, and with the commitments of the REDD+EPM project (CCB standard). In addition, the ecological restoration plan of the Porce III project was submitted to the environmental authority.

**Environmental management of reservoirs:** Control of water hyacinth, invasive species, cyanobacteria, solid waste, and erosion was carried out to improve the habitat conditions of these artificial wetlands. In addition, ichthyofauna was monitored in some reservoirs and tributary streams.

**Environmental offsets:** In power generation, EPM made progress with 20.68 km<sup>2</sup> in natural succession process (passive restoration). Within the framework of the Ituango Project, 44.97 km<sup>2</sup> of lands were acquired to offset the moist and tropical dry forest ecosystems that will be impacted by the project works and the flood area of the reservoir. The offset area accumulated as of 2017 is 154.46 km<sup>2</sup> (89% progress).

In EPM Power Transmission and Distribution, the Riogrande – Yarumal, El Salto – Yarumal, Cerromatoso – Caucasia, Nueva Esperanza (500kV and 230kV), Bello-Guayabal-Ancón (BGA), La Sierra, and San Lorenzo lines were constructed. These lines total 433.78 km and 1255.72 km<sup>2</sup> of easements. During the construction, the impacts on forests, natural ecosystems, and communities were minimized, and the ending of the closed season for endangered species was requested. Environmental offset was carried out (goal: 2.19 km<sup>2</sup>, progress: 0.29 km<sup>2</sup>) and 15,654 individuals of epiphytic species (orchids, bromeliads, and ferns) were rescued and transplanted.

In EPM Water and Sanitation, 2,241 trees were planted in the metropolitan area of Valle de Aburrá, as forest offset of several projects.

Regarding Emvarias, 0.06 km<sup>2</sup> were planted with native species to offset the area of the landfill. For its part, Aguas Nacionales EPM made progress in the offset of the Aguas Claras WWTP project, in the municipality of Bello, by planting 3,581 trees in 2017, for an accumulated of 11,794 trees.

**Areas and land use (km<sup>2</sup>) - Grupo EPM**

| Company / Business                              | Reservoirs | Infrastructure | Forests and natural ecosystems | Forest plantations | Non-classified area | Total area | Percentage (%) |
|-------------------------------------------------|------------|----------------|--------------------------------|--------------------|---------------------|------------|----------------|
| EPM - VP of Power Generation                    | 103.6      | 5.1            | 199.6                          | 63.0               | 11.6                | 382.9      | 48.1%          |
| EPM - VP of Power Transmission and Distribution | 0          | 23.3           | 0                              | 0                  | 0                   | 23.3       | 2.9%           |
| EPM - VP of Water and Sanitation                | 1.5        | 0.3            | 13.1                           | 14.5               | 0.9                 | 30.3       | 3.8%           |

### Areas and land use (km<sup>2</sup>) - Grupo EPM

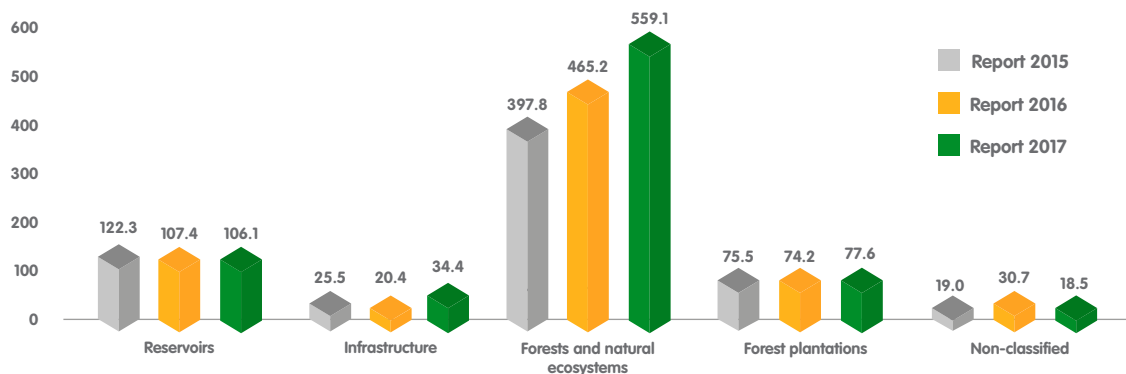
| Company / Business                               | Reservoirs    | Infrastructure | Forests and natural ecosystems | Forest plantations | Non-classified area | Total area   | Percentage (%) |
|--------------------------------------------------|---------------|----------------|--------------------------------|--------------------|---------------------|--------------|----------------|
| EPM - VP of Ituango Project                      | 0             | 2.5            | 261.9                          | 0                  | 5.8                 | 270.2        | 34.0%          |
| CHEC - VP of Power Generation                    | 0.96          | 1.1            | 64.9                           | 0                  | 0                   | 67.0         | 8.4%           |
| Emvarias - VP of Water and Sanitation            | 0             | 0.4            | 3.3                            | 0                  | 0.07                | 3.8          | 0.5%           |
| EPM Chile - VP of Power Generation               | 0             | 0.3            | 16.3                           | 0.06               | 0                   | 16.7         | 2.1%           |
| ENSA - VP of Power Transmission and Distribution | 0             | 1.3            | 0.08                           | 0                  | 0                   | 1.4          | 0.2%           |
| <b>Total</b>                                     | <b>106.06</b> | <b>34.3</b>    | <b>559.18</b>                  | <b>77.56</b>       | <b>18.37</b>        | <b>795.6</b> | <b>100%</b>    |
| <b>Percentage (%)</b>                            | <b>13%</b>    | <b>4%</b>      | <b>70%</b>                     | <b>10%</b>         | <b>2%</b>           | <b>100%</b>  |                |

Source: IDSOS (EPM, Emvarias, CHEC, EPM Chile, ENSA). Génesis geographic information system (EPM)

The areas reported in 2017 amount to 795.69 km<sup>2</sup>, of which 48% correspond to EPM Power Generation, with 103.6 km<sup>2</sup> of reservoirs, 199.5 km<sup>2</sup> of forests, and 62.9 km<sup>2</sup> of forest plantations; and 34% to the Ituango project (EPM), with 261.9 km<sup>2</sup> for protection and offset of impacts generated by the development of the project. It is worth mentioning the 60.9 km<sup>2</sup> of conservation areas of CHEC, and the 23.3 km<sup>2</sup> reported by EPM Transmission and Distribution, corresponding to easements of new transmission lines. See annex Areas and uses:

<http://www.sostenibilidadgrupoepm.com.co/wp-content/uploads/2018/06/Annex-Areas-and-uses.xlsx>

### Classification of areas and coverage - Grupo EPM



Source: IDSOS (EPM, CHEC, Emvarias, EPM Chile, ENSA)

In 2017, new lands were acquired for the development of the Ituango project. The cartography of soil cover and the bathymetry of reservoirs were updated and new reports were obtained from affiliates of Grupo EPM. There was an increase in the amount of forests and plantations, as well as a decrease in the area of reservoirs. The infrastructure increased due to the inclusion of easements of new linear projects of the VP of Power Transmission and Distribution. Finally, thanks to the cartographic update, the non-classified areas went from 30.7 km<sup>2</sup> in 2016 to 18.5 km<sup>2</sup> in 2017.

| Impacted and offset areas (km <sup>2</sup> ) - Grupo EPM |               |                    |                     |                         |              |
|----------------------------------------------------------|---------------|--------------------|---------------------|-------------------------|--------------|
| Name                                                     | Area impacted | Target offset area | Area offset in 2017 | Accumulated offset area | Progress (%) |
| EPM - VP of Power Generation                             | 3.23          | 24.97              | 20.68               | 22.01                   | 88%          |
| EPM - VP of Power Transmission and Distribution          | 0.81          | 2.19               | 0.29                | 0.29                    | 13%          |
| EPM - VP of Ituango Projects                             | 54.3          | 174.29             | 44.97               | 154.46                  | 89%          |
| Emvarias - VP of Water and Sanitation                    | 0.4           | 0.8                | 0.06                | 0.2                     | 25%          |
| <b>Total</b>                                             | <b>58.74</b>  | <b>202.25</b>      | <b>66.0</b>         | <b>176.96</b>           | <b>87%</b>   |

*Source: IDSOS (EPM and Emvarias).*

Grupo EPM is responsible for offsetting the impacts generated on biodiversity during the construction and operation of its projects. These are identified from early stages through environmental impact assessments (EIA) and their offset remains as a commitment for the licenses granted by the environmental authority. In 2017, there was a progress of 87% in the offset goals of Grupo EPM, with a ratio of 1 to 3.5 between the areas impacted and those offset.

## GRI Standards and EPM indicators

- 304-2** Significant impacts of activities, products, and services on biodiversity.
- EU13** Comparison of biodiversity between compensated habitats and areas affected.

## Conservation of threatened species

The operational areas owned, leased, or managed by the Grupo EPM's companies are located in different biogeographic regions from Mexico to Northern Chile. These areas include different ecosystems that contribute to the conservation of biodiversity, provide ecosystem services, generate regional biological corridors, and provide shelter for flora and fauna species that are considered threatened, mainly due to their overexploitation or to the loss or alteration of their habitats.

Grupo EPM's companies are committed to the integrated management for the conservation of biodiversity and ecosystem services through programs, projects, and initiatives, either mandatory or voluntary, developed by the group itself or along with other actors. It includes protection of the threatened species in the IUCN Red List, CITES, and other national lists, whose habitats are located in areas where operations are developed.

### Management in 2017

In 2017, Grupo EPM increased its knowledge of the threatened species that are protected in their lands. There are reports of EPM and nine affiliates located in four countries (Colombia, Chile, Guatemala, and Panama) that include a total of 301 species, of which 207 are threatened and 138 registered in CITES.

Progress was made in the exploration and update of the land cover maps, ecological restoration was carried out in coordination with other actors, declaration of new protected areas was supported, and work was done on the preparation and implementation of their environmental management plans (EMP).

Other affiliated companies of the group also participated in this report 2017: EPM, CHEC, ESSA, Aguas Nacionales EPM, and Emvarias in Colombia; EPM Chile and Adasa in Chile; Egsa in Guatemala; and HET and ENSA in Panama.

The group contributes to the conservation of fauna and flora, especially of 301 species reported as threatened and/or included in the CITES list. This year, 207 species were reported as threatened (in contrast to 125 species in 2016), and 138 species reported in CITES were also included. Additionally, seven species whose hunting is banned at a regional or national level were found in the projects. See annex Conservation of threatened species:

<http://www.sostenibilidadgruopem.com.co/wp-content/uploads/2018/06/Annex-Conservation-of-threatened-species.xlsx>

In EPM, fauna and flora monitoring was completed to comply with the environmental license of Porce II and Porce III and give continuity to the REDD+EPM project, in its biodiversity component (CCB standard), in the areas of Miraflores and Riogrande, which is complemented with the information of the canyon of the Porce river. In addition, an agreement with the University of Antioquia was signed in October for the Integrated Management of Biodiversity in the operating stations, including Guatapé, Playas, and Termosierra.

In Water and Sanitation, measures for ecological restoration and protection of forests were taken in the basins that supply the water systems of the metropolitan area of Valle de Aburrá. Currently, there is an agreement with Corporación Parque Arví, Corporación CuencaVerde, and the Center for Science and Technology of Antioquia to support environmental education activities related to fauna and flora.

In CHEC, it is worth highlighting the conservation of fauna and flora species associated with paramos, subparamos, high Andean forests, and tropical moist forests. Environmental education programs were also developed, through trails for watching endemic and migratory birds in the protected forest area of CHEC. In addition, progress was made in the initiatives for managing conservation lands and in the Ruta del Cóndor project.

Emvarias has implemented a reforestation program in the La Pradera landfill. During 2017, 2,500 trees of native species were planted as floristic enrichment in areas identified for conservation. Moreover, this land has 0.52 km<sup>2</sup> of natural forests in which six threatened species have been observed.

| Number of species by biological group<br>Total species reported, threatened and CITES |                          |                                  |            |            |            |             |                            |            |           |             |
|---------------------------------------------------------------------------------------|--------------------------|----------------------------------|------------|------------|------------|-------------|----------------------------|------------|-----------|-------------|
| Biological group                                                                      | Reported species in 2017 | Threatened species - Categories* |            |            |            | Total       | CITES species - appendices |            |           |             |
|                                                                                       |                          | CR                               | EN         | VU         | NT         |             | I                          | II         | III       | Total       |
| <b>Fauna</b>                                                                          | <b>202</b>               | <b>9</b>                         | <b>17</b>  | <b>68</b>  | <b>29</b>  | <b>123</b>  | <b>17</b>                  | <b>96</b>  | <b>3</b>  | <b>116</b>  |
| Fish                                                                                  | 19                       | 3                                | 1          | 15         | 0          | 19          | 0                          | 1          | 2         | 3           |
| Amphibians                                                                            | 14                       | 1                                | 1          | 7          | 4          | 13          | 0                          | 2          | 0         | 2           |
| Reptiles                                                                              | 10                       | 1                                | 1          | 5          | 1          | 8           | 2                          | 4          | 0         | 6           |
| Birds                                                                                 | 124                      | 2                                | 9          | 24         | 23         | 58          | 3                          | 82         | 1         | 86          |
| Mammals                                                                               | 35                       | 2                                | 5          | 17         | 1          | 25          | 12                         | 8          | 2         | 22          |
| <b>Flora</b>                                                                          | <b>99</b>                | <b>9</b>                         | <b>27</b>  | <b>32</b>  | <b>17</b>  | <b>85</b>   | <b>0</b>                   | <b>20</b>  | <b>2</b>  | <b>22</b>   |
| Trees                                                                                 | 63                       | 9                                | 15         | 23         | 14         | 61          | 0                          | 3          | 2         | 5           |
| Palms                                                                                 | 11                       | 0                                | 7          | 4          | 0          | 11          | 0                          | 1          | 2         | 3           |
| **Other                                                                               | 25                       | 0                                | 5          | 4          | 3          | 12          | 0                          | 17         | 0         | 17          |
| <b>Total</b>                                                                          | <b>301</b>               | <b>18</b>                        | <b>44</b>  | <b>99</b>  | <b>46</b>  | <b>207</b>  | <b>17</b>                  | <b>116</b> | <b>5</b>  | <b>138</b>  |
| <b>Percentage (%)</b>                                                                 |                          | <b>9%</b>                        | <b>21%</b> | <b>48%</b> | <b>22%</b> | <b>100%</b> | <b>12%</b>                 | <b>84%</b> | <b>4%</b> | <b>100%</b> |

**Source:** IDSOS (EPM, CHEC, ESSA, Aguas Nacionales EPM, Emvarias, EPM Chile, Adasa, Eegsa, ENSA and HET).

\* Categories: critically endangered (CR), endangered (EN), vulnerable (VU), and near threatened (NT)

\*\*Other: anthuriums, bromeliads, ferns, heliconias, and orchids.

Conservation status (IUCN: <http://www.iucnredlist.org>, Colombia: Ruling 1912 of 2017, MADS, Guatemala: CONAP)

CITES: <https://www.cites.org> ; <http://checklist.cites.org>

In the Grupo EPM's affiliated companies, thanks to their diversity of ecosystems, species of different biological groups are protected, many of them threatened due to their overexploitation or alteration of their habitats. A total of 301 species of fauna and flora are reported, of which 207 are threatened. Additionally, this year the report includes 138 species reported in CITES, appendices I, II and III, according to the conditions of each country (Colombia, Chile, Guatemala, and Panama). See annex Conservation of threatened species:

<http://www.sostenibilidadgrupoepm.com.co/wp-content/uploads/2018/06/Annex-Conservation-of-threatened-species.xlsx>



| Number of threatened species by country, company, and business |                                                   |                                  |    |    |    |       |
|----------------------------------------------------------------|---------------------------------------------------|----------------------------------|----|----|----|-------|
| Country                                                        | Company / Business                                | Threatened species - Categories* |    |    |    |       |
|                                                                |                                                   | CR                               | EN | VU | NT | Total |
| Colombia                                                       | EPM - VP of Water and Sanitation                  | 3                                | 4  | 3  | 1  | 11    |
|                                                                | EPM - VP of Power Generation                      | 5                                | 8  | 21 | 0  | 34    |
|                                                                | EPM - EVP of Projects and Engineering             | 7                                | 15 | 45 | 11 | 78    |
|                                                                | CHEC - VP of Power Transmission and Distribution  | 2                                | 9  | 21 | 12 | 44    |
|                                                                | ESSA - VP of Power Transmission and Distribution  | 2                                | 3  | 7  | 0  | 12    |
|                                                                | Aguas Nacionales EPM - VP of Water and Sanitation | 0                                | 0  | 2  | 0  | 2     |
|                                                                | Emvarias - VP of Water and Sanitation             | 0                                | 1  | 5  | 0  | 6     |
| Chile                                                          | EPM Chile - VP of Power Generation                | 0                                | 1  | 0  | 0  | 1     |
|                                                                | Adasa - VP of Water and Sanitation                | 0                                | 0  | 2  | 1  | 3     |
| Guatemala                                                      | Eegsa - VP of Power Transmission and Distribution | 0                                | 6  | 8  | 22 | 36    |
| Panama                                                         | ENSA - VP of Power Transmission and Distribution  | 1                                | 4  | 10 | 0  | 15    |
|                                                                | HET - VP of Power Generation                      | 0                                | 2  | 2  | 4  | 8     |

**Source:** IDSOS (EPM, CHEC, ESSA, Aguas Nacionales EPM, Emvarias, EPM Chile, Adasa, Eegsa, ENSA, HET).

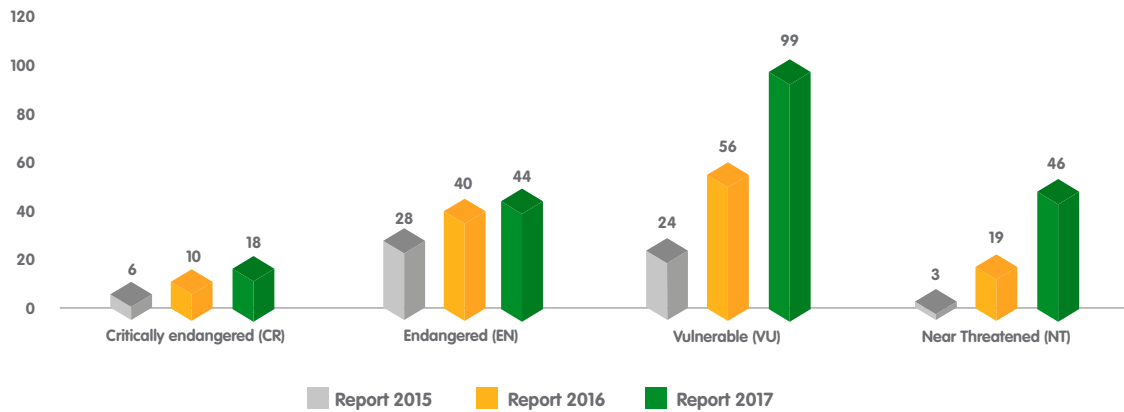
\*Categories: critically endangered (CR), endangered (EN), vulnerable (VU), near threatened (NT)

Conservation status (IUCN: <http://www.iucnredlist.org>, Colombia: Ruling 1912 of 2017, MADS, Guatemala: CONAPI)

In 2017, the group increased its knowledge of the threatened fauna and flora according to the IUCN Red List and other national lists. Grupo EPM contributes to the conservation of the different terrestrial and aquatic ecosystems that are protected. The main reports of threatened species were observed in EPM Projects and Engineering (78 species), followed by CHEC (44), Eegsa (36), and EPM Power Generation (34). Some of these species are the condor, the Andean bear, the mountain tapir, felines, primates, the otter, and the wax palm, among others. See annex Conservation of threatened species:

<http://www.sostenibilidadgrupoepm.com.co/wp-content/uploads/2018/06/Annex-Conservation-of-threatened-species.xlsx>

### Number of threatened species reported per year

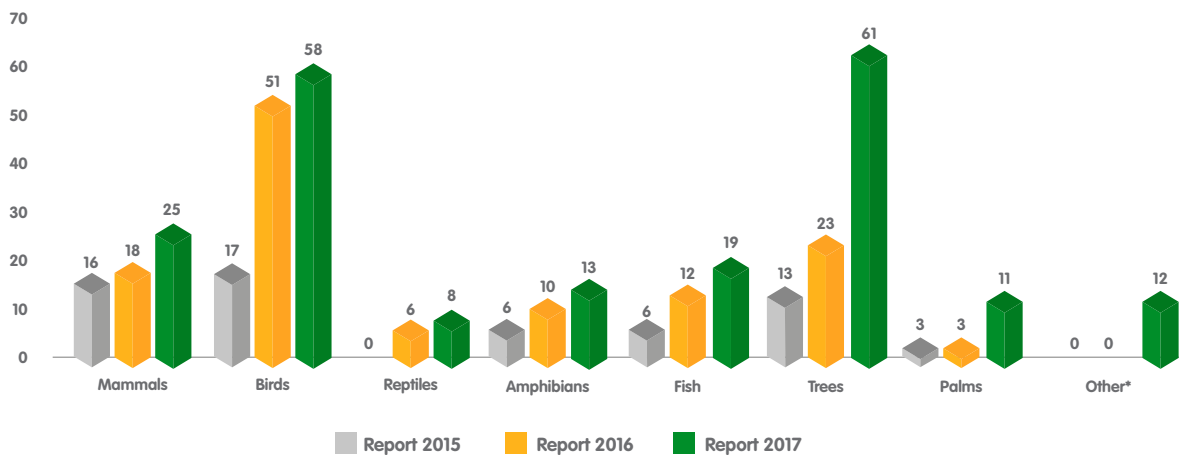


**Source:** IDSOS (EPM, CHEC, ESSA, Aguas Nacionales EPM, Emvarias, EPM Chile, Adasa, Eegsa, ENSA, HET)

With the efforts made in 2017 and the increase of reports from the affiliated companies, the group identified 207 threatened species that are being protected, thus contributing to their conservation in forests, reservoirs, and other ecosystems and, in consequence, exceeding the reports of previous years (125 species in 2016 and 61 species in 2015). There was an increase in the report of threatened species in all categories, especially in Vulnerable (VU), which amounted to 99 species reported. See annex Conservation of threatened species:

<http://www.sostenibilidadgrupoepm.com.co/wp-content/uploads/2018/06/Annex-Conservation-of-threatened-species.xlsx>

### Number of threatened species by biological group



**Source:** IDSOS (EPM, CHEC, ESSA, Aguas Nacionales EPM, Emvarias, EPM Chile, Adasa, Eegsa, ENSA, HET)

\*Other: anthuriums, bromeliads, ferns, heliconias, and orchids.

Conservation status (IUCN): <http://www.iucnredlist.org>, Colombia: Ruling 1912 of 2017, MADS, Guatemala: CONAPI

In 2017, there was an increase in the reports of threatened species in all biological groups, especially trees, in relation to the sustainability reports 2015 and 2016. This is due to the studies conducted in 2017 and the increase in the number of Grupo EPM's affiliated companies that reported on this material topic. In addition, new groups of flora (anthuriums, bromeliads, ferns, heliconias, and orchids) were added. See annex Conservation of threatened species:

<http://www.sostenibilidadgrupoepm.com.co/wp-content/uploads/2018/06/Annex-Conservation-of-threatened-species.xlsx>

## GRI Standards and EPM indicators

**304-4** IUCN Red List species and national conservation list species with habitats in areas affected by operations.  
**EPM-01** Conservation areas.



**Quality of  
working  
environment**



**Grupo·epm<sup>®</sup>**



# Quality of working environment

It refers to the collective perception of the employees regarding the company's practices, policies, structure, processes, and systems, impacting the human environment in which daily work takes place.

Working environment has a direct influence on employees' satisfaction, commitment, and productivity, which allows for the achievement of the company's goals.

## Stakeholders' vision

Transparent communication expectations, creation of spaces of trust to express the feelings regarding organizational dynamics, coherence between strategic speeches and decisions, employees' emotional well-being, harmony between work and family life, and balance between professional contribution and recognition.

## Relevance

The quality of the working environment has a direct influence on employees' satisfaction, commitment, productivity and, therefore, on the achievement of the company's goals. It creates social value between Grupo EPM people and Grupo EPM's companies and extends it to the other stakeholder groups in terms of trust and legitimacy.

## Risk in sustainability associated with this topic

- Perception of incoherence between the behavior of leaders and workers and the declared values and the strategic planning of Grupo EPM.

For more detailed information on the analysis of risks associated with material topics, see Material aspects and boundaries (General information).

## Main achievements

| Goals for 2017                                                                           | Achievements in 2017                                                                                                                                                                    | Accomplishment |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| ESSA: Deliver the working environment measurement to nominal groups and the action plan. | The delivery of results for the measurement 2016 was agreed, planned, and executed in order to build the action plans under the nominal group methodology in 100% of ESSA's work teams. | Total          |

| Goals for 2017                                                                                                                                           | Achievements in 2017                                                                                                                                                                                                                                          | Accomplishment |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| ESSA: Perform the working environment measurement between October and November 2017.                                                                     | The contracting process was carried out and the working environment measurement was performed as planned between October 2 to 11, 2017.                                                                                                                       | Total          |
| ESSA: Increase the indicator in the items approved by the steering committee on January 30, 2017.                                                        | The result was exceeded by 2.9 points with respect to 2016.                                                                                                                                                                                                   | Total          |
| ESSA: Ensure that departments and work teams follow the proposed plan.                                                                                   | Managers of work teams and heads of departments were advised on the construction and implementation of the working environment plans.                                                                                                                         | Total          |
| CHEC: Perform the working environment measurement 2017, based on the decisions of the Corporate Core.                                                    | There was an increase of one point in the results of quality of working environment in relation to the measurement 2015, with a coverage of 80.7% of workers. 75 nominal groups were measured, corresponding to 97.5% of the total amount of teams and areas. | Total          |
| CENS: Execute the working environment measurement 2017.                                                                                                  | The company maintained its rating in the working environment measurement, which counted on the participation of 91% of the workers.                                                                                                                           | Total          |
| EDEQ: Deliver the results to the remaining 10 work teams, so that leaders can include activities for improving or keeping variables in their work plans. | Results were delivered to the 10 teams as planned.                                                                                                                                                                                                            | Total          |
| EDEQ: Perform the working environment measurement with 100% of the EDEQ's employees working on the date defined by the group.                            | The measurement had a participation of 78.42%.                                                                                                                                                                                                                | Partial        |
| HET: Draw up the Human Resource Management Plan.                                                                                                         | The work plan for ENSA was defined to allow integration and optimization of activities in the structuring of the human management in HET as of 2018.                                                                                                          | Total          |
| HET: Implement strategies of the human resource program.                                                                                                 | A budget reserve was set aside to carry out human management activities in 2018.                                                                                                                                                                              | Total          |
| Eegsa: Implement, permanently, the Working Environment Management Plan.                                                                                  | Improvement of the working environment in relation to the previous year, and greater follow-up to the execution of plans.                                                                                                                                     | Total          |
| Aguas de Antofagasta: Achieve a score equivalent to or greater than 71.6 in the working environment survey 2017.                                         | Goal achieved. The company reached a score of 72.01 in the working environment survey 2017.                                                                                                                                                                   | Total          |

| Goals for 2017                                                                                                                                                                                                                                                                                                                                         | Achievements in 2017                                                                                                              | Accomplishment |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------|
| Aguas Nacionales: Design and implement strategies to face situations that may alter well-being, generate negative or threatening changes in professional and non-professional conditions, or increase the levels of stress in the employees of the company, through spaces for integration, learning and professional, family, and social development. | The activities scheduled to achieve the established goal were developed.                                                          | Total          |
| Aguas Regionales EPM: Define and implement an action plan according to the results of the quality of life survey.                                                                                                                                                                                                                                      | The improvement plan was documented and executed based on the results of the quality of life survey carried out in November 2016. | Total          |

## Challenges

| Challenge                                                                                               | Year in which it is achieved | Scope and coverage            |                        |                                                    | Achievement indicator                                                                                                                |
|---------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------|------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                         |                              | Territory                     | Business               | Company                                            |                                                                                                                                      |
| Achieve a result of 59.4 in the working environment measurement.                                        | 2018                         | Antioquia-Colombia            | Energy, gas, and water | EPM                                                | Achieving 59.4                                                                                                                       |
| Disclose and deliver the measurement results to the executive staff, ten departments, and four regions. | 2018                         | Norte de Santander - Colombia | Energy                 | Centrales Eléctricas del Norte de Santander - CENS | Sessions scheduled/<br>Sessions executed for the delivery of results to the required parties.                                        |
| Manage the results of the 2017 measurement through transversal actions and by work teams.               | 2018                         | Caldas - Colombia             | Energy                 | Central Hidroeléctrica de Caldas - CHEC            | Working environment management strategies implemented / Working environment management strategies planned.                           |
| Increase the indicator by one point in the 2018 measurement.                                            | 2018                         | Santander - Colombia          | Energy                 | Electrificadora de Santander - ESSA                | Difference between the results of the general working environment indicator measurement in 2018 and 2017 (Brought to present value). |

| Challenge                                                                                                                                                                                                                                 | Year in which it is achieved | Scope and coverage   |                        |                                        | Achievement indicator                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|------------------------|----------------------------------------|------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                           |                              | Territory            | Business               | Company                                |                                                                                          |
| Define and execute activities in an 80% at the organizational level together with the well-being and quality of life program for maintaining the working environment indicator.                                                           | 2018                         | Quindío - Colombia   | Energy                 | Empresa de Energía del Quindío - EDEQ  | Activities executed/ Activities planned.                                                 |
| Carry out the working environment measurement.                                                                                                                                                                                            | 2018                         | Antioquia            | Solid waste management | Empresas Varias de Medellín            | Definition of the baseline on which to take actions once the measurement is performed.   |
|                                                                                                                                                                                                                                           |                              | Mexico               | Water                  | Tecnológica Intercontinental -Ticsa    | Definition of the baseline on which to take actions once the measurement is performed.   |
| Keep current results.                                                                                                                                                                                                                     | 2018                         | Guatemala            | Energy                 | Empresa Eléctrica de Guatemala - Eegsa | Result equal to or higher than the previous year (Excellent Level: More than 80 points). |
| Reach a score equal to or greater than 72 in the working environment survey of 2018.                                                                                                                                                      | 2018                         | Chile                | Water                  | Aguas de Antofagasta - Adasa           | Results of the survey.                                                                   |
| Design and implement strategies to face situations that may alter well-being, generate negative or threatening changes in professional and non-professional conditions, or increase the levels of stress in the employees of the company. | 2018                         | Antioquia - Colombia | Water                  | Aguas Nacionales                       | Number of activities executed / Number of activities scheduled.                          |



## GRI Standards and EPM indicators

**EPM-02** Results of the organizational climate measurement.

## Sustainable Development Goals



# Organizational climate



Collective perception regarding the company's practices, policies, structure, processes, and systems and its resulting reaction that has an impact on the human environment in which daily work, satisfaction, commitment, and productivity take place. It is defined by the leader's performance, people's commitment, and the way they work and interact. In this regard, organizational climate is a collective development that calls for the commitment of all the those involved.

The quality of the organizational climate directly influences employees' satisfaction, commitment, and productivity, and therefore, the achievement of the company's goals. It creates a social value among Grupo EPM's people and Grupo EPM's companies and extends it to the other stakeholders in terms of trust and legitimacy.

## Management in 2017

Encontrémonos para conversar (Let's meet to talk) are spaces for the CEO and some managers and their work team to share experiences and learnings about development and performance commitments.

During 2017, EPM continued to strengthen its work environment, so that employees could have a satisfactory experience in the development of their activities within the company, as well as an emotional well-being and balance between their family and work life.

- In February 2017, the results of the 2016 measurement were delivered. The results were analyzed and discussed, and the improvement plans at the business and department levels were defined, focused on strengthening the three basic dimensions (leadership, organizational clarity, and relationships) that would mobilize the results of the measurement.
- In September 2017, actions were shared, a lot was learned based on the experience of success stories, and opportunities for improvement were discovered based on the measures that have allowed strengthening the organizational climate.
- In November 2017, the organizational climate was measured, and 87% of the population participated in this measurement. The score obtained (58.9 points) stood at the "good level" of the scale, which suggests favorable perceptions in relation to the work realities examined. Thanks to this, there was a significant increase of 3.4 points compared to the previous year, broadly meeting the goal.

In most of the companies of the group where this measurement took place in 2017, there was a significant increase in the score compared to that of 2016.

Actions for the improvement of the organizational climate continue to be developed under suitable conditions within the framework of the management plans defined in each of the affiliated companies. In the group's energy companies in Colombia, management focused on the dimensions of leadership, organizational clarity, and relationships that mobilized the results of the measurement.

At EPM and some affiliated companies, the results of the organizational climate, communication effectiveness, quality of life, and psychosocial risk measurements were integrated to design the action and improvement plans.

| Results of the organizational climate measurement |      |      |      |
|---------------------------------------------------|------|------|------|
| Companies                                         | 2015 | 2016 | 2017 |
| EPM                                               | 52.9 | 54.2 | 58.9 |
| Adasa                                             | 65   | 71   | 72   |
| CHEC                                              | 52.8 | N.A. | 54   |
| ESSA                                              | 47.7 | 49.3 | 54   |
| EDEQ                                              | 53.3 | N.A. | 62   |
| CENS                                              | N.A. | 56   | 55.0 |
| DelSur                                            | N.A. | 86   | N.A. |
| Eegsa                                             | 84   | 85   | 89   |
| ENSA                                              | 79   | 75   | N.A. |

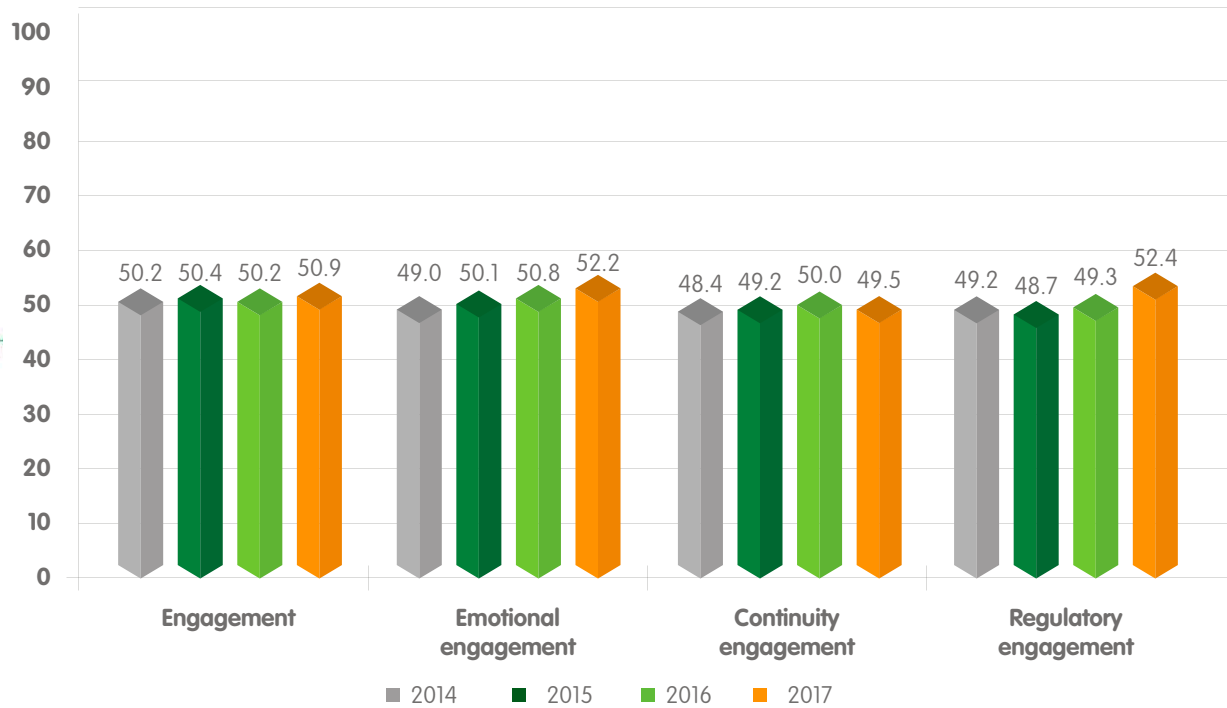
*The measurement tool and frequency of application is not the same for all the companies of the group. Therefore, it is not possible to carry out a consolidated analysis of the results at the moment. However, it is important to highlight the improvement in the scores of EPM, ESSA, EDEQ, and Eegsa.*

*In the group's water companies in Colombia, the organizational climate is not measured. Its management lies in the measurement of quality of life and psychosocial risk.*

*In general, in the companies where the measurement took place in 2017, there was a significant improvement in the result compared to that of the previous year.*

Emotional engagement was measured with the support of CINCEL. Emotional engagement is understood as the emotional aptitude or adhesion towards the company, through which individuals identify themselves, get involved, and enjoy being part of it. The score obtained was 52.2 points.

**Emotional engagement measurement from 2014 to 2017 at EPM**



## GRI Standards and EPM indicators

**EPM-02** Results of the organizational climate measurement.



**Quality and  
safety of products  
and services**



**Grupo·epm®**





## Quality and safety of products and services

It refers to the technical and commercial characteristics necessary to meet the expectations of customers and users, as well as the regulatory and control requirements. This topic includes service quality, continuity, and safety, as well as aspects related to assistance, education, communication, customer satisfaction, and corporate reputation.

### Stakeholders' vision

Stakeholders, especially customers and users, expect the organization to provide safe and quality services.

### Relevance

Economic value is associated with the objective of process optimization—basis of the competitiveness of the group's businesses—and quality to satisfy customers and users requirements.

Regarding social value, product quality has an impact on quality of life and human development. For its part, safety protects life and health of internal and external stakeholders.

### Risk in sustainability associated with this topic

- Inappropriate provision of public utilities.

For more detailed information on the analysis of risks associated with material topics, see Material aspects and boundaries (General information).

## Main achievements

| Goals for 2017                                                                                                                                                                                                                                                                                                 | Company           | Achievements in 2017                                                                                                                                                                                                                                                                         | Accomplishment   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Keep the Water Quality Risk Index (WQRI) below 5%, by controlling and managing the purification process in the water affiliated companies, in order to preserve users' health.                                                                                                                                 | EPM               | As of December 2017, the Water Quality Risk Index (WQRI) in the municipalities of the metropolitan area was as follows:<br>Medellín 0.07%, Copacabana 0.05%, Girardota 0.02%, La Estrella 0.12%, Caldas 0.47%, Barbosa 0.40%, Sabaneta 0.27%, Envigado 0.14%, Bello 0.06%, and Itagüí 0.07%. | Total            |
|                                                                                                                                                                                                                                                                                                                | Aguas del Oriente | As of December 2017, the Water Quality Risk Index (WQRI) was 1.04%.                                                                                                                                                                                                                          |                  |
|                                                                                                                                                                                                                                                                                                                | Aguas de Malambo  | As of December 2017, the Water Quality Risk Index (WQRI) was 0%.                                                                                                                                                                                                                             |                  |
|                                                                                                                                                                                                                                                                                                                | Aguas Regionales  | As of December 2017, the Water Quality Risk Index (WQRI) was 0.05% for the Urabá region and 0.26% for the Western region.                                                                                                                                                                    |                  |
| Decrease the water loss indicator (LRBU) - Water Supply, to the following levels (m <sup>3</sup> /billed user):<br><br><b>EPM:</b> 6.96<br><b>Aguas de Malambo:</b> 22.11<br><b>Aguas Regionales - Western region:</b> 7.90<br><b>Aguas Regionales - Urabá region:</b> 13.42<br><b>Aguas del Oriente:</b> 2.95 | EPM               | As of December 2017, the LRBU was 6.26.                                                                                                                                                                                                                                                      | Total            |
|                                                                                                                                                                                                                                                                                                                | Aguas de Malambo  | As of December 2017, the LRBU was 15.67.                                                                                                                                                                                                                                                     | Total            |
|                                                                                                                                                                                                                                                                                                                | Aguas Regionales  | <b>Western region:</b> As of December 2017, the LRBU was 8.67.                                                                                                                                                                                                                               | Not accomplished |
|                                                                                                                                                                                                                                                                                                                |                   | <b>Urabá region:</b> As of December 2017, the LRBU was 11.53.                                                                                                                                                                                                                                | Total            |
|                                                                                                                                                                                                                                                                                                                | Aguas del Oriente | As of December 2017, the LRBU was 2.29.                                                                                                                                                                                                                                                      | Total            |

| Goals for 2017                                                                                                                                                                                                                                                                                                   | Company | Achievements in 2017                                                                    | Accomplishment   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------------------------------------|------------------|
| Reach the following values in the indicators of quality and continuity of the energy service:<br><br><b>EPM:</b> SAIDI 14.38 / SAIFI 9.47<br><b>ESSA:</b> SAIDI 32.54 / SAIFI 23.65<br><b>CENS:</b> SAIDI 31.27 / SAIFI 23.27<br><b>EDEQ:</b> SAIDI 8.92 / SAIFI 25.17<br><b>CHEC:</b> SAIDI 28.40 / SAIFI 29.19 | EPM     | As of December 2017, the result obtained was SAIDI:16.93 and SAIFI:12.31.               | Total            |
|                                                                                                                                                                                                                                                                                                                  | ESSA    | As of December 2017, the results of the indicators were: SAIDI: 29.09 and SAIFI: 22.01. | Partial          |
|                                                                                                                                                                                                                                                                                                                  | CENS    | As of December 2017, the results of the indicators were: SAIDI: 29.18 and SAIFI: 15.14. | Not accomplished |
|                                                                                                                                                                                                                                                                                                                  | EDEQ    | As of December 2017, the results of the indicators were: SAIDI: 8.92 y SAIFI: 21.44.    | Partial          |
|                                                                                                                                                                                                                                                                                                                  | CHEC    | As of December 2017, the results of the indicators were: SAIDI: 25.05 and SAIFI: 25.49. | Not accomplished |
| Reach the objectives defined for the energy loss and recovery rate:<br><br><b>EPM:</b> 7.52% - 71.46 GWh<br><b>CENS:</b> 13% - 20 GWh<br><b>ESSA:</b> 11.33% - 33.96 GWh<br><b>EDEQ:</b> 8.46% - 1.08 GWh<br><b>CHEC:</b> 8.84% - 7.93 GWh                                                                       | EPM     | As of December 2017, the loss rate was 7.00%.                                           | Total            |
|                                                                                                                                                                                                                                                                                                                  | CENS    | As of December 2017, the loss rate was 13.51%.                                          | Partial          |
|                                                                                                                                                                                                                                                                                                                  | ESSA    | As of December 2017, the loss rate was 12.06%.                                          | Partial          |
|                                                                                                                                                                                                                                                                                                                  | EDEQ    | As of December 2017, the loss rate was 8.38%.                                           | Total            |
|                                                                                                                                                                                                                                                                                                                  | CHEC    | As of December 2017, the loss rate was 8.45%.                                           | Total            |



| Goals for 2017                                                                 | Company | Achievements in 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Accomplishment |
|--------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Meet the regulated loss levels with a value below 3.3% of total system losses. | EPM     | <p>As a result of the strict control on the amounts delivered by distributors in the nodes of entry to the different piped natural gas distribution systems of EPM, the gas loss rate reached a result of 2.93% in 2017. This control involves auditing the volumes taken at the injection points of the different EPM distribution systems, which allows the company to act opportunely and, therefore, have a high level of certainty about the volumes of gas entering every day.</p> <p>This reduction is also result of the increase in control actions over installations with fraudulent behavior due to the increase in the management capacity of the team that performs this work.</p> | Total          |

## Challenges

| Challenges for 2018                                                                                                                          | Year in which it is achieved | Scope and coverage            |                      |                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------|----------------------|-----------------------------------|
|                                                                                                                                              |                              | Territory                     | Business             | Company                           |
| Increase the amount of hours of the water supply to 18 hours in the sectors supplied by the El Tesoro plant, in the municipality of Malambo. | 2018                         | Colombia - Malambo, Atlántico | Water                | Aguas de Malambo                  |
| Keep the Water Quality Risk Index (WQRI) below 5%, in order to preserve users' health.                                                       | 2018                         | Colombia - Antioquia          | Water and Sanitation | EPM                               |
|                                                                                                                                              |                              | Colombia - Atlántico          |                      | Aguas de Malambo                  |
|                                                                                                                                              |                              | Colombia - Antioquia          |                      | Aguas Regionales - Urabá region   |
|                                                                                                                                              |                              |                               |                      | Aguas Regionales - Western region |
|                                                                                                                                              |                              | Aguas del Oriente             |                      |                                   |

| Challenges for 2018                                                                                                                                                                                                                                                                                | Year in which it is achieved | Scope and coverage   |                      |                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|----------------------|----------------------------------------|
|                                                                                                                                                                                                                                                                                                    |                              | Territory            | Business             | Company                                |
| Reduce the Water Loss Rate per Billed User (LRBU) to the following levels (m <sup>3</sup> /billed user):<br><br><b>EPM:</b> 6.1<br><b>Aguas de Malambo:</b> 16.33<br><b>Aguas Regionales - Urabá region:</b> 10.4<br><b>Aguas Regionales - Western region:</b> 7.98<br><b>Aguas del Oriente:</b> 4 | 2018                         | Colombia - Antioquia | Water and Sanitation | EPM                                    |
|                                                                                                                                                                                                                                                                                                    |                              | Colombia - Atlántico |                      | Aguas de Malambo                       |
|                                                                                                                                                                                                                                                                                                    |                              | Colombia - Antioquia |                      | Aguas Regionales - Urabá region        |
|                                                                                                                                                                                                                                                                                                    |                              |                      |                      | Aguas Regionales - Western region      |
|                                                                                                                                                                                                                                                                                                    |                              |                      |                      | Aguas del Oriente                      |
| Reach a water continuity index of:<br><br><b>EPM:</b> 99.70%<br><b>Aguas de Malambo:</b> 52%<br><b>Aguas Regionales - Urabá region:</b> 99.22%<br><b>Aguas Regionales - Western region:</b> 98.4%<br><b>Aguas del Oriente:</b> 99.7%                                                               | 2018                         | Colombia - Antioquia | Water and Sanitation | EPM                                    |
|                                                                                                                                                                                                                                                                                                    |                              | Colombia - Atlántico |                      | Aguas de Malambo                       |
|                                                                                                                                                                                                                                                                                                    |                              | Colombia - Antioquia |                      | Aguas Regionales - Urabá region        |
|                                                                                                                                                                                                                                                                                                    |                              |                      |                      | Aguas Regionales - Western region      |
|                                                                                                                                                                                                                                                                                                    |                              |                      |                      | Aguas del Oriente                      |
| Achieve a solid waste compaction density greater than t/m <sup>3</sup> .                                                                                                                                                                                                                           | 2018                         | Colombia - Antioquia | Sanitation           | Empresas Varias de Medellín - Emvarias |
| Increase the secondary treatment capacity of the leachate treatment plant from 4l/s to 8 l/s.                                                                                                                                                                                                      | 2018                         | Colombia - Antioquia | Sanitation           | Empresas Varias de Medellín - Emvarias |
| Convert five waste collection light trucks to natural gas.                                                                                                                                                                                                                                         | 2018                         | Colombia - Antioquia | Sanitation           | Empresas Varias de Medellín - Emvarias |
| Keep the gas loss rate below 3.3.                                                                                                                                                                                                                                                                  | 2018                         | Colombia - Antioquia | Gas                  | Empresas Públicas de Medellín - EPM    |

| Challenges for 2018                                                                                                                                                                                                                                                                                                                                                                                                                            | Year in which it is achieved | Scope and coverage            |           |         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------|-----------|---------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | Territory                     | Business  | Company |
| Reach the objectives defined for the energy loss and recovery rate of the network operator:<br><br><b>EPM:</b> 7.31% - 90.96 GWh<br><b>CENS:</b> 12.46% - 15.69 GWh<br><b>ESSA:</b> 11.28% - 30.0 GWh<br><b>EDEQ:</b> 8.43% - 1.33 GWh<br><b>CHEC:</b> 8.35% - 10.45 GWh<br><b>ENSA:</b> 10.85% - 15.7 GWh<br><b>Delsur:</b> 8.46%<br><b>Eegsa:</b> 4.68%.                                                                                     | 2018                         | Colombia – Antioquia          | Power T&D | EPM     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | Colombia - Norte de Santander |           | CENS    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | Colombia – Santander          |           | ESSA    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | Colombia – Quindío            |           | EDEQ    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | Colombia – Caldas             |           | CHEC    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | Panama                        |           | ENSA    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | El Salvador                   |           | Delsur  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | Guatemala                     |           | Eegsa   |
| Reach the following values in the indicators of quality and continuity of the energy service:<br><br><b>EPM:</b> SAIDI 14.71 / SAIFI 10.80<br><b>CENS:</b> SAIDI 31.25 / SAIFI 14.28<br><b>ESSA:</b> SAIDI 30.97 / SAIFI 20.50<br><b>EDEQ:</b> SAIDI 8.94 / SAIFI 21.79<br><b>CHEC:</b> SAIDI 26.13 / SAIFI 26.85<br><b>ENSA:</b> SAIDI 13.97 / SAIFI 6.49<br><b>Delsur:</b> SAIDI 16.49 / SAIFI 8.41<br><b>Eegsa:</b> SAIDI 3.75 / SAIFI 2.43 | 2018                         | Colombia – Antioquia          | Power T&D | EPM     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | Colombia - Norte de Santander |           | CENS    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | Colombia – Santander          |           | ESSA    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | Colombia – Quindío            |           | EDEQ    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | Colombia – Caldas             |           | CHEC    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | Panama                        |           | ENSA    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | El Salvador                   |           | Delsur  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | Guatemala                     |           | Eegsa   |

## GRI Standards and EPM indicators

- 102-43** Approach to stakeholder engagement.
- 102-44** Key topics and concerns raised.
- 103-1** Explanation of the material topic and its boundary.
- 103-2** The management approach and its components.
- 103-3** Evaluation of the management approach.
- 416-2** Incidents of non-compliance concerning the health and safety impacts of products and services.
- 417-3** Incidents of non-compliance concerning marketing communications.

- 418-1** Substantiated complaints regarding concerning breaches of customer privacy and losses of customer data.
- 419-1** Non-compliance with laws and regulations in the social and economic area.
- EU25** Number of injuries and deaths involving the organization's assets, including legal sentences, settlements, and pending legal cases of diseases.
- EU28** Average frequency of blackouts.
- EU29** Average duration of blackouts.
- EU30** Average availability of generation plants, by energy source and regulatory system.
- EPM-03** Loss rate.
- EPM-04** Customer service channels.
- EPM-05** Grievance indicator.

## Sustainable Development Goals



## Quality and continuity of service

Service quality comprises technical and commercial characteristics inherent to its provision, which must meet the expectations of users and the requirements of regulatory and control entities.

Continuity refers to how long the user has access to the service.

### Management in 2017

In 2017, Grupo EPM supplied water suitable for human consumption. The Water Quality Risk Index (WQRI) highest value was 1.04%, significantly lower than the maximum allowed by law, which is 5%. This result improved in relation to the previous year, thanks to a decrease of 0.3 points.

In EPM, the water service continuity index was 99.90%, higher than the goal of 99.7%, keeping the service provision above the conditions defined in Ruling 315 of 2005. In the regions of Malambo and Urabá, measures were taken to guarantee continuity in the provision of the water supply, improving the quality of life their inhabitants.

With the purpose of optimizing and improving the provision of the energy service, EPM implemented actions aimed at improving the quality provided to users connected to distribution networks.

2017 was a positive year for the Colombian companies of Grupo EPM. They continued transforming the lives of the people who inhabit the territories where the group operates. For example, in Malambo, nine sampling points were installed in the water distribution network and the service continuity went from 26.9% in 2016 to 30.7% in 2017. Communities located in areas such as Bellavista, Casco Viejo, and Luna Tesoro Montecarlos enjoyed the service 12 hours a day, compared to 6 hours in the previous year. In Urabá, 40% of the users served by the Casanova tank, in the municipality of Turbo, received the service 24 hours a day.

Envarias achieved 100% continuity in the provision of the final disposal service, obtaining compaction densities of 1.09 t/m<sup>3</sup> in the La Pradera landfill, thus exceeding the design parameters that established compaction densities of 1.00 t/m<sup>3</sup> and optimizing the volumes available for the proper disposal of solid waste.

Regarding the companies outside of Colombia, Adasa prepared plans for the replacement of non-operational valves aiming at reducing the number of customers per outage sections.

As for energy companies in Colombia, it is worth considering that, at the regulatory level, the Energy and Gas Regulatory Commission (CREG) issued in 2017 the CREG Ruling 019, through which it published for consultation the new quality scheme draft, in order to replace the quality indicators ITAD (Grouped Quarterly Index of Discontinuity) and IRAD (Grouped Reference Index of Discontinuity), established in the current regulation CREG 097 of 2008. This new ruling introduces changes related to measurement using the SAIDI and SAIFI indicators.

Anticipating this regulatory change, Grupo EPM introduced in its measurement procedures the SAIDI and SAIFI indicators (which were already being monitored and included in different reports) for the companies covered by the new scheme proposal, and started to perform measurements and monitoring under more strict parameters (going from measurements lasting more than three minutes to one minute, damaging these indicators), in order to standardize the measure in those companies. It should be noted that the performance of the SAIDI and SAIFI indicators has been favorable for the group, despite these changes, and that is why the group's service quality project is being consolidated.

During the year, several criteria were consolidated to identify the critical points that must be intervened in order to improve the reliability of the networks.

| <b>Water supply continuity indicator</b>         |             |             |             |
|--------------------------------------------------|-------------|-------------|-------------|
| <b>National companies</b>                        |             |             |             |
| <b>Company/Indicator</b>                         | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| EPM                                              | 99.94%      | 99.9%       | 99.90%      |
| Aguas del Oriente                                | 99.86%      | 99.8%       | 99.8%       |
| <b>Aguas Regionales</b>                          |             |             |             |
| Western region                                   | 99.63%      | 99.7%       | 99.6%       |
| Urabá region                                     | 77.52%      | 84.3%       | 87.7%       |
| Aguas de Malambo                                 | 45.81%      | 26.9%       | 30.7%       |
| Emvarias - Continuity in collection and sweeping | 100%        | 100%        | 100%        |
| <b>International companies</b>                   |             |             |             |
| Ticsa                                            | 100%        | 99.53%      | 99.47%      |
| Adasa                                            | 97.81%      | 97.64%      | 98.13%      |

**Source:** Vice Presidency of Water and Sanitation

*The result of Emvarias is based on the indicators of continuity in collection and continuity in sweeping; where the references are services executed/services designed for collection and transportation, and km swept/km designed for sweeping.*

| <b>Water Quality Risk Index - WQRI</b> |             |             |             |
|----------------------------------------|-------------|-------------|-------------|
| <b>Company/Municipality</b>            | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| <b>EPM</b>                             |             |             |             |
| Medellín                               | 0.03%       | 0.07%       | 0.07%       |
| Copacabana                             | 0.07%       | 0.09%       | 0.05%       |
| Girardota                              | 0.05%       | 0.00%       | 0.02%       |
| La Estrella                            | 0.10%       | 0.09%       | 0.12%       |
| Caldas                                 | 0.13%       | 0.20%       | 0.47%       |
| Barbosa                                | 0.05%       | 0.23%       | 0.40%       |
| Sabaneta                               | 0.26%       | 0.33%       | 0.27%       |
| Envigado                               | 0.09%       | 0.07%       | 0.14%       |
| Bello                                  | 0.02%       | 0.05%       | 0.06%       |
| Itagüí                                 | 0.03%       | 0.04%       | 0.07%       |
| <b>Aguas del Oriente</b>               |             |             |             |
| El Retiro                              | 0.01%       | 0.64%       | 1.04%       |
| <b>Aguas Regionales</b>                |             |             |             |
| Sopetrán                               | 0.00%       | 0.31%       | 0.00%       |
| San Jerónimo                           | 0.00%       | 0.00%       | 0.00%       |
| Santa Fe de Antioquia                  | 0.24%       | 0.15%       | 0.00%       |
| Olaya                                  | 0.00%       | 0.50%       | 0.00%       |
| Apartadó                               | 0.00%       | 0.00%       | 0.00%       |
| Turbo                                  | 1.45%       | 0.60%       | 0.16%       |
| Chigorodó                              | 0.00%       | 0.00%       | 0.00%       |
| Carepa                                 | 0.06%       | 0.00%       | 0.00%       |

| Water Quality Risk Index - WQRI |       |       |       |
|---------------------------------|-------|-------|-------|
| Company/Municipality            | 2015  | 2016  | 2017  |
| <b>Aguas Regionales</b>         |       |       |       |
| Mutatá                          | 0.00% | 0.00% | 0.00% |
| El Reposo                       | 0.00% | 0.00% | 0.00% |
| Bajirá                          | 0.00% | 0.00% | 0.00% |
| <b>Aguas de Malambo</b>         |       |       |       |
| Malambo                         | 0.00% | 0.00% | 0.00% |

Source: Vice Presidency of Water and Sanitation

| Drinking water quality indicator |        |        |      |
|----------------------------------|--------|--------|------|
| Company/Indicator                | 2015   | 2016   | 2017 |
| Adasa                            | 94.14% | 99.50% | 100% |

Source: Vice Presidency of Water and Sanitation

| Indicators of opportunity and quality in service provision |      |      |      |
|------------------------------------------------------------|------|------|------|
| Company / Indicator                                        | 2015 | 2016 | 2017 |
| <b>Emvarias</b>                                            |      |      |      |
| Opportunity in service provision                           | 100% | 100% | 100% |
| Quality in service provision                               | 4.44 | 4.62 | 4.7  |

Source: Vice Presidency of Water and Sanitation

The WQRI is calculated in accordance with the provisions of Decree 1575 and Ruling 2115 of 2007 by the Ministry of Social Protection in Colombia. 5% is the maximum value allowed; therefore, values below 5% are considered safe. The Ministry states that control and monitoring activities must be performed within this range of values to ensure that water is suitable for human consumption.



| Quality and continuity of the energy service |       |       |       |
|----------------------------------------------|-------|-------|-------|
| Company/Indicator                            | 2015  | 2016  | 2017  |
| <b>EPM</b>                                   |       |       |       |
| Saidi                                        | 15.22 | 14.71 | 16.93 |
| Saifi                                        | 7.26  | 7.59  | 12.31 |
| <b>CHEC</b>                                  |       |       |       |
| Saidi                                        | 27.50 | 26.01 | 25.05 |
| Saifi                                        | 25.59 | 24.21 | 25.49 |
| <b>ESSA</b>                                  |       |       |       |
| Saidi                                        | 39.00 | 32.85 | 29.09 |
| Saifi                                        | 18.00 | 21.17 | 22.01 |
| <b>CENS</b>                                  |       |       |       |
| Saidi                                        | 32.45 | 40.02 | 29.18 |
| Saifi                                        | 11.11 | 10.57 | 15.14 |
| <b>EDEQ</b>                                  |       |       |       |
| Saidi                                        | 9.70  | 8.89  | 8.92  |
| Saifi                                        | 13.65 | 12.62 | 21.43 |
| <b>Delsur</b>                                |       |       |       |
| Saidi                                        | 27.21 | 22.93 | 18.22 |
| Saifi                                        | 14.00 | 11.50 | 9.04  |
| <b>Eegsa</b>                                 |       |       |       |
| Saidi                                        | 3.68  | 3.59  | 3.75  |
| Saifi                                        | 2.62  | 2.46  | 2.43  |
| <b>ENSA</b>                                  |       |       |       |
| Saidi                                        | 15.74 | 15.44 | 13.23 |
| Saifi                                        | 8.81  | 7.36  | 6.21  |

Source: Vice Presidency of Power Transmission and Distribution

| Quality and continuity of the gas service in EPM            |      |      |      |
|-------------------------------------------------------------|------|------|------|
| Concept/Indicator                                           | 2015 | 2016 | 2017 |
| Index of delivery pressures in individual pipelines - IDPIP | 100% | 100% | 100% |
| Odorization index - OI                                      | 100% | 100% | 100% |
| Equivalent length of service interruption - ELSI            | 0    | 0    | 0    |

Source: Vice Presidency of Gas

*Seeking operational excellence in the provision of the natural gas service, actions were taken to increase safety for customers. Besides ensuring compliance with applicable regulations, all gas indicators totally meet the goal.*

## GRI Standards and EPM indicators

- EU28** Average frequency of blackouts.
- EU29** Average duration of blackouts.

## Education for and communication with customers, users, and the community

As part of the CSR, communication with customers is handled through educational communication, marketing communication, and communication due to scheduled disconnections.

Educational communication regarding residential public utilities is developed by Grupo EPM through awareness-raising, information, and training activities, using engagement tools based on knowledge of, recognition of, and respect for our communities, their cultural aspects, and everyday spaces, establishing the necessary partnerships with external entities as well as institutional and community leaders.

Communication due to disconnections aims at minimizing inconveniences due to scheduled disconnection of services.

Marketing communication includes different strategies such as advertising, sponsorship, sales promotion, public relations, among others, seeking to position Grupo EPM's brand, its services, and the different offers concerning purchasability and access.

### Management in 2017

In 2017, EPM developed educational communication and engagement programs, as well as academic and regulatory events, where more than 440,000 people benefited directly in the different territories nationwide, with an investment of COP 2.23 billion.

Implementing the Por ti, estamos ahí (We are there for you) education strategy allowed for institutional continuity in different territories of Antioquia and in the national energy affiliates, managing to hold direct talks with over 142,000 people from 37 territories of Antioquia and 170,000 people located in 25 national territories.

A total of 38 seminars were held in the country in coordination with the government sector, as well as 11 academic and regulatory events with the business sector, in order to provide relevant information for the management of companies and entities and strengthen business relationships. At the local level, 61 business approaching programs, 21 visits to plants, academic advice to 300 industrial customers, and awareness campaigns on energy efficiency with 1,200 small businesses were held. Corporate customers also received support by leveraging commercial offers and consolidating the perception of EPM as a strategic ally. Moreover, customers and users were kept informed thanks to the "Cuéntame especial para ti" (Let me know, specially for you) newsletter which monthly reaches more than 500 thousand homes and companies with personalized messages and alerts associated with their services.

Emvarias carried out awareness campaigns with 39,282 people through the Linda Calle institutional project thanks to 148 interventions, and with 650 children from the Sol de Oriente and Manrique neighborhoods in the La Libertad and La Alegría UVAs through 106 waste management and recycling activities. The Yo me comprometo (I commit myself) campaign raised awareness in 3,500 users in 14 neighborhoods of the city of Medellín, including commercial users, on the appropriate way to take solid waste out in the streets for its collection. Through participation in the Buen Comienzo Festival, a total of 80,394 children were made aware particularly of the adequate separation of waste through playful methodologies and the delivery of 10,000 puzzles and pedagogical material with basic guidelines for waste separation at the source. Likewise, 8,200 people were made aware, during community events, of the adequate management of waste, protection of the environment, recycling, among other issues. Finally, through digital media and social networks, the Ruta Recicla (Recycle Route) campaign was developed with the participation of cyclist Rigoberto Urán, which impacted approximately 480,000 people.

At Adasa, the inclusion of new virtual platforms made it possible to implement an even more robust education plan, with audiovisual bulletins showing the productive processes and the activities of the engagement and customer education programs on marketing issues. On a quarterly basis, the CONTIGO (WITH YOU) educational brochure that is attached to the customers' bill and in which the most relevant topics of the company are included was replicated. In the reputation survey, CONTIGO is identified as one of the communication channels most known and preferred by the community.

At Ticsa, people from the community, mostly students from technological institutes and universities of the city and some others from government institutions, were heard regarding the process of wastewater treatment to raise awareness on the importance of water care and use options for wastewater treated, giving an added value to the treatment process.

The energy affiliated companies of Grupo EPM developed awareness-raising, information, and discussion initiatives with stakeholders in aspects such as processes in the provision of the energy service; understanding of the bill; rights and obligations of users; compliance with RETIE; legal, safe and efficient use of energy; and electrical risks. Educational strategies are addressed in a specific way, considering the characteristics of the regions and the target audience (children, teenagers, teachers, leaders, parents, and the community in general).

Some of the programs carried out by the different companies include:

#### ESSA

- During 2017, a total of 11 closeness initiatives were carried out, benefiting 91,577 users in 29 municipalities.
- Good receptivity was observed in the communities intervened which have expressed satisfaction with ESSA's social programs.
- Increased impact on local media.
- Through closeness activities, ESSA reaches the stakeholders with a unified message, showing its investments, projects, and technical and marketing actions in which it works to guarantee the quality of the service.

#### CENS

- The following educational strategies were carried out: Conoce tu consumo (Calculate your consumption), educational events, leaders school, leaders meeting, encouragement of citizen participation through control spokespersons, Allies for Progress seminars, user training through CENS locations, institutional closeness, and digital newspaper.
- Soccer tournament at CENS, Education for Schoolchildren, Art and Energy in the Park.
- Social support to the energy loss program.

These activities benefited 82,429 people.

#### CHEC

Based on the study entitled “Research on the impact of educational management for the strengthening of citizen culture, through the promotion of desirable behaviors within the groups: Clients and Community of CHEC Grupo EPM, for the period 2016-2017” and carried out by the University of Manizales, within the framework of the company’s education plan, contributions to civic culture through the development of educational strategies such as Student Social Service were observed, impacting 279 students from 21 municipalities in the area of coverage in 27 educational institutions.

Some of the most representative conclusions of the study include the adoption of behaviors aligned with the responsible use of electricity. There were also findings on cascade education which is achieved by influencing the immediate environment of students and their families.

Through the actions of the Cercanía es crecer juntos (Closeness means growing together) program—where different departments and processes of the company addressed stakeholders in an articulated manner—, it was possible to inform and raise awareness about relevant issues and desirable behaviors in the use of the electricity service.

In 2017, a total of 61,966 users and customers were impacted through the different strategies of the company’s education plan, incorporating desirable behaviors under the civic culture approach. The Cercanía es crecer juntos program was developed in five municipalities of Caldas and Risaralda, reaching 22,223 users, included in the coverage of the company’s education plan, under a collaborative work approach and supported by the UNEP’s engagement model suggested by the business group. In addition, the client and community segment was addressed with strategies that 16 areas and/or processes defined as important to deal with stakeholders.

#### EDEQ

- The “EDEQ en mi pueblo (“EDEQ in my town) program was carried out in seven municipalities of the department, impacting approximately 2,900 people. This program was articulated with the EDEQ más cerca de ti (EDEQ closer to you) strategy and carried out in two districts of Armenia and in two municipalities of the department.
- A total of 8,559 users were trained in issues related to the provision of electrical energy, risks and hazards, and water and environmental protection.
- 502 users were certified through the Escuela de Formación de Lideres (Leadership Training School) program, where they were trained in legal issues and issues related to the uniform conditions agreement.

- Through the Cuidamundos (World's protector) program, 25,099 students from public educational institutions in the department of Quindío were impacted.
- The tourism sector, companies, and the government were impacted through the Guía de nuestra gente (Our people's guide) program, reaching 417 users.
- With the government segment, work was done with the working groups mechanism. In each municipality of Quindío, a working group was established, for a total of 44 working groups. In this space, issues related to the provision of the energy service and its degree of effectiveness in each municipality were discussed. Likewise, three seminars were held, which were attended by 192 people.
- With the community, and specifically with the group of social control spokespersons of Quindío, a course (120 hours), was developed, in partnership with several universities, on topics related to corporate citizenship and the provision of the energy service. To close this program, an update seminar was held on energy and environmental issues.
- A seminar for electricians with professional license was held. A total of 108 technicians participated. This program is developed under the framework of the closeness and engagement strategy, in order to contribute to the energy loss program.
- With teenagers, we offered them an Energy with Socio-Environmental Responsibility course, which was attended by 110 students from public and private educational institutions of the department, of which 82 were certified.
- In support of the energy loss program, the EDEQ te visita (EDEQ visits you) program was carried out, with a focus on subnormal settlements, benefiting 50 users directly.

## Loss management

Loss control and reduction programs in the water supply service are aimed at reducing water waste by controlling and preventing leaks and through commercial activities and social interventions to promote a responsible use by users and the community.

In the energy and gas services, programs include education, access to and purchasability value propositions, and technologies to minimize vulnerability of the infrastructure concerning illegal actions.

### Management in 2017

At EPM, it was possible to reduce the water loss rate per billed user reaching the target value for 2017. Moreover, the volume of losses was in the expected range (between 85 and 90 million m<sup>3</sup>) with a value of 86.6 million m<sup>3</sup>.

In the El Retiro region, there was a decrease in the loss rate per billed user, going from 7.30 to 2.29 cubic meters per user, thanks to the systematic detection of leaks; and from 19.54 to 15.67 cubic meters per user, in Malambo, where 1,165 micro-metering centers were installed under an agreement with the Fundación Fuente de Vida.

Promoting the responsible consumption of energy and the reduction of losses is one of the goals of the affiliated company ENSA, which is why, by 2017, it has installed 7,736 prepayment meters.

During 2017, different actions were carried out at EPM, aimed at improving the loss rate, at mitigating the risks derived from irregular connections, and at improving and transforming the lives of people living in the territories where it operates. 131 informal car washes were visited in order to raise awareness about the proper and normal use of the service. 19 new meters were installed. Technical, social, and commercial activities were also performed to reduce risks in squatter settlements where 300 families were intervened through two Risk Mitigation Community Brigades carried out during the year (one of them in the Villatina sector).

In Medellín, a workshop on best practices was held, in which it was identified, as best practice, the inclusion of unrecovered energy in the indicators, an activity that is being adopted by the affiliated companies. The actions carried out to reduce the indicator range from the use of specialized equipment and networks to prevent fraud to the implementation of night and weekend brigades and the monitoring of the technical quality of field inspections.

In the El Retiro region, there was a decrease in the loss rate per billed user, going from 7.30 to 2.29, thanks to the systematic detection of leaks; and in Malambo, from 19.54 to 15.67. In this region, 1,165 micro-metering centers were installed under an agreement with the Fundación Fuente de Vida. Actions were taken for pressure control, modernization, replacement of networks and connection pipes, systematic detection of leaks, standardization of fraud, improvement of micro-metering, and linking of customers.

Outside Colombia, at Adasa, several actions were taken to recover losses, including the creation of a NRW (Non-Revenue Water) committee that is responsible for defining strategies for the systematic detection of leaks. Thanks to this, it was possible to recover 300,000 cubic meters.

In the energy service, the indicators in the national affiliated companies showed, in general, a downward trend due to external and internal factors that impacted the different NOs, such as the saving campaign proposed by the national government due to the threat of rationing and the movement of billing cycles.

At the affiliated company CENS, there have been difficulties due to the Venezuelan migration, some problems derived from the economic crisis, and public order issues in the region, which have affected performance.

In Central America, there were great achievements. At Eegsa, substations were designed considering loading centers to optimize the technical levels of losses in medium-voltage networks, nearly 2,000 transformation centers were optimized to minimize losses due to overload and age of assets, and approximately 100 km of low-voltage conductors were replaced by a wound gauge with greater section.

In the gas service, the loss indicator reached a 100% compliance, with a cumulative loss value of 2.93% over a goal of 3.3%, an achievement that was recognized by the regulatory authority. This, as a result of the management actions performed to the measurement at the transfer points of the conveyor in the Tasajera Node, the improvement in the acquisition of data for the appraisal of the variables that affect gas billing, and the fraud control management within the Guardianes de los servicios públicos (Guardians of public utilities) project.

| <b>Non-revenue water rate</b>  |             |             |             |
|--------------------------------|-------------|-------------|-------------|
| <b>Company/Indicator</b>       | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| <b>National companies</b>      |             |             |             |
| EPM                            | 31.87%      | 31.53%      | 30.79%      |
| Aguas del Oriente              | 29.22%      | 41.05%      | 18.00%      |
| <b>Aguas Regionales</b>        |             |             |             |
| Western region                 | 33.25%      | 34.94%      | 36.30%      |
| Urabá region                   | 53.55%      | 48.38%      | 47.68%      |
| Aguas de Malambo               | 67.71%      | 59.59%      | 51.70%      |
| <b>International companies</b> |             |             |             |
| Adasa                          | 24.80%      | 24.28%      | 27.07%      |

Source: Vice Presidency of Water Supply and Sanitation



| Water loss rate per billed user (LRBU) |       |       |       |
|----------------------------------------|-------|-------|-------|
| Company/Indicator                      | 2015  | 2016  | 2017  |
| <b>National companies</b>              |       |       |       |
| EPM                                    | 7.15  | 6.63  | 6.26  |
| Aguas del Oriente                      | 4.58  | 7.30  | 2.29  |
| <b>Aguas Regionales</b>                |       |       |       |
| Western region                         | 8.84  | 8.81  | 8.67  |
| Urabá region                           | 14.93 | 12.16 | 11.53 |
| Aguas de Malambo                       | 27.58 | 19.54 | 15.67 |
| <b>International companies</b>         |       |       |       |
| Adasa                                  | 7.10  | 6.90  | 7.12  |

Source: Vice Presidency of Water Supply and Sanitation

| Energy loss management                |       |       |       |
|---------------------------------------|-------|-------|-------|
| Company/Indicator                     | 2015  | 2016  | 2017  |
| <b>EPM Distribution</b>               |       |       |       |
| Loss rate by network operator (LRRNO) | 8.15  | 7.58  | 7.00  |
| Commercial loss rate (CLR)            | 12.24 | 11.36 | 11.44 |
| <b>CHEC</b>                           |       |       |       |
| Loss rate by network operator (LRRNO) | 9.40  | 8.47  | 8.45  |
| Commercial loss rate (CLR)            | 13.12 | 12.82 | 13.02 |
| <b>ESSA</b>                           |       |       |       |
| Loss rate by network operator (LRRNO) | 12.78 | 12.19 | 12.06 |
| Commercial loss rate (CLR)            | 16.05 | 14.37 | 14.00 |
| <b>CENS</b>                           |       |       |       |
| Loss rate by network operator (LRRNO) | 12.50 | 13.59 | 13.51 |
| Commercial loss rate (CLR)            | 16.01 | 17.10 | 16.80 |
| <b>EDEQ</b>                           |       |       |       |
| Loss rate by network operator (LRRNO) | 8.47  | 8.17  | 8.44  |
| Commercial loss rate (CLR)            | 11.21 | 10.84 | 11.35 |
| <b>Delsur</b>                         |       |       |       |
| Loss rate by network operator (LRRNO) | 8.69  | 9.26  | 8.64  |
| Commercial loss rate (CLR)            | 8.75  | 9.33  | 8.72  |

| Energy loss management                |       |       |       |
|---------------------------------------|-------|-------|-------|
| Company/Indicator                     | 2015  | 2016  | 2017  |
| <b>Eegsa</b>                          |       |       |       |
| Loss rate by network operator (LRRNO) | 5.35  | 5.04  | 4.68  |
| Commercial loss rate (CLR)            | 6.65  | 6.23  | 5.78  |
| <b>ENSA</b>                           |       |       |       |
| Loss rate at ENSA                     | 10.65 | 11.12 | 10.36 |
| Commercial loss rate (CLR)            | N.D.  | N.D.  | N.D.  |

Source: Vice Presidency of Power Transmission and Distribution

| Gas loss management at EPM |       |       |       |
|----------------------------|-------|-------|-------|
| Indicator                  | 2015  | 2016  | 2017  |
| Gas loss indicator (%)     | 3.70% | 2.85% | 2.93% |

Source: Vice Presidency of Gas

## GRI Standards and EPM indicators

**EPM-03** Loss rate.

## Customer satisfaction

At the national level, Grupo EPM uses a tool to assess the state of the relationship with customers in terms of satisfaction and loyalty, in order to determine whether the value proposition offered is leading to the objectives sought. The results are used to implement action plans aimed at improving the value proposition by adjusting it to the needs of each segment and optimizing the processes, relationships, and ties with customers.

It also uses other measuring tools, such as complaints, that allow identifying the customers' perception of the company's products and services.

### Management in 2017

For the national companies of Grupo EPM and for EPM, customer satisfaction and loyalty was measured in 2017, and the result improved compared to that in 2016.

The customer satisfaction score in the national companies of Grupo EPM increased by 0.6 points, reaching 78.3; and the customer loyalty score reached 78.7 points, increasing by 1.1 points compared to the previous year.

At EPM specifically, the customer satisfaction score was 80.2, increasing by 1.4 points compared to the previous year; and the customer loyalty score reached 81 points, increasing by 1.7 points compared to the previous year.

The results obtained in the 2017 measurement show the state of the relationship with customers in terms of satisfaction and loyalty. The latter is built from the dimensions of attitude and behavior, it being understood that attitude reflects the perception of customers with respect to the value proposition that the company offers them, which is in turn made up of components that reflect the quality of the relationship, the product quality, the level of service, the availability of contact points, and the cost-benefit ratio; while behavior shows customer behavior in terms of priority of payment, trust, affinity, and willingness to continue using the services and recommend them.

In the attitude dimension, the following findings were observed:

The water supply and sewerage services must be prioritized at the following affiliated companies: Aguas de Malambo, Aguas de Urabá, and especially Aguas del Oriente. For Aguas de Occidente, it represents a strength; however, attention must be given to all affiliated companies regarding the timely repair of damages.

Regarding the energy service, it continues to be a factor to be enhanced at all the group's energy affiliated companies. Its attributes have a medium satisfaction, showing a slight downward trend, where there are still opportunities for improvement. EPM had a good performance.

The contact and information points are seen as a strength at Aguas de Occidente, EPM, and ESSA. They must be improved at the other water affiliated companies. At CENS and EDEQ, attention should be given to times for procedures in the offices and hotlines and to response times to complaints and claims.

The relationship with customers represents a strength in the Western region at EPM and ESSA thanks to friendliness, transparency, and kindness.

In the behavior dimension, the following findings were observed:

In general terms, users feel close to the energy companies, but this is an issue that should be closely monitored in the long term, especially at ESSA, CENS, Aguas de Urabá, and Aguas del Oriente. It is important to maintain the relationship of trust that has been built at CHEC and in the water affiliated companies. In the case of CENS, bonds of trust must be built.

Recommendation, trust, and affinity are the factors that contribute most to the behavior dimension in the rating of the group's national energy companies.

It is important to point out that in all of the national water affiliated companies, behavior is superior than attitude.

Complaint behavior at the group's national companies was positive. Eight of the ten companies exceeded the target, and two showed results close to it, such as EPM and Aguas de Malambo. At EPM, the indicator was affected by the delay in the connection of the energy, gas, and water services, mainly due to the low operational capacity for the connection of the energy and water services; and the delay in the issuance of breakage permits by the municipal entities for the connection of the gas service. Complaint behavior at Aguas de Malambo was affected by failures in the provision of the service caused by the interruption in the pumping of water.

| Customer loyalty measurement results |      |      |
|--------------------------------------|------|------|
|                                      | 2016 | 2017 |
| Grupo EPM                            | 77.6 | 78.7 |
| EPM                                  | 79.3 | 81   |

Source: Commercial Vice Presidency

| Grievance indicator results |      |      |
|-----------------------------|------|------|
|                             | 2016 | 2017 |
| EPM                         | 6.53 | 6.25 |

Source: Commercial Vice Presidency

The complaints indicator measures the ratio between the number of complaints that are EPM's responsibility and the number of total customers, per 10,000 customers.

## GRI Standards and EPM indicators

**102-43** Approach to stakeholder engagement.

**102-44** Key topics and concerns raised.

**EPM-05** Grievance indicator.

**EPM-18** Employees' commitment.

## Reliability in the provision of the service

Operational excellence is one of Grupo EPM's strategic focus in the provision of services. To achieve this purpose, the group develops risk prevention, mitigation, and control plans, as well as contingency plans to deal with events; implements methods and technologies with quality standards; and carries out educational actions to ensure the adoption of practices that ensure the integrity of infrastructure and the safety of employees, users, and the community.

### Management in 2017

In 2017, Grupo EPM conducted information campaigns, educational activities, and preventive maintenance routines focused on the safe and legal use of public utilities, in order to mitigate the risks associated with improper practices; achieving a 24% decrease, compared to the previous year, in the number of incidents or claims received due to damages or injuries to individuals, going from 54 to 41. Such decrease was reflected in each of the companies of Grupo EPM.

In the water supply service, EPM reviewed and updated the risk maps and monitored control actions. Additionally, it updated the general emergency and contingency plan, and continues to implement preventive actions to avoid possible third-party deaths or injuries, among which the following stand out: appropriate signage in the works; use of personal protective equipment by employees and contractors; avoid leaving open holes and cover them the same day they are opened; using light signals in heavy traffic roads where repair works are executed at night; awareness program for the community when a project is going to be executed; and inspection of the water supply, sewerage, and gas network drawings before a technical intervention.

The national companies developed their respective contingency plans for the water supply and sewerage services and carried out safety inspections to guarantee the adequate use of personal protective equipment.

At Emvarias, trainings on occupational health and safety were carried out, preventive maintenance to the entire fleet (179 controls) was performed, and the hazard and risk matrices and safety standards focused on how the works associated with the process should be executed safely were updated. The implementation of the Road Safety Strategic Plan started, and the training program on occupational health and safety continued, in order to minimize the risks inherent in the provision of the service.

As for the international companies, Adasa was imposed 26 fines in 2017 for regulatory breaches associated with damage claims due to breakage or fine for breaking pavements without permits, among others. The total value in the year was estimated at COP 1.41 billion.

In 2017, information campaigns and educational activities focused on the safe and legal use of the energy service were carried out, seeking to mitigate the risks caused by inappropriate practices regarding the use of the service. Likewise, trainings, addressed to contractors and employees, on the “golden rules” to carry out works on the distribution networks were held. In the different legal proceedings and stages of the processes, the organization is legally represented based on the guidelines of the group and in accordance with the provisions of the law, seeking an adequate legal management to reduce financial losses and loss of reputation for the companies.

In the energy companies, there was a significant decrease in the number of incidents or claims, thanks to the implementation of preventive actions and the adequate management of administrative, financial, and environmental issues. In general, there were fewer incidents having an impact on the resources of the companies.

In 2017, ESSA was imposed five fines for regulatory breaches associated with administrative silence, penalty for work-related injury and violation of social insurance regulations, and penalty for work-related injury. The total value in the year was estimated at COP 1.38 billion.

In 2017, at Grupo EPM, in the different legal proceedings and stages of the processes, we highlight legal representation based on the guidelines of the group and in accordance with the provisions of the law, seeking an adequate legal management to reduce financial losses and loss of reputation for the group and for each of its companies.

It is important to note that, in the gas business at EPM, there were no incidents or accidents associated with the provision of the service.

| Incidents in the provision of the service          |      |      |      |                  |      |      |
|----------------------------------------------------|------|------|------|------------------|------|------|
| Indicator                                          | EPM  |      |      | Energy companies |      |      |
|                                                    | 2015 | 2016 | 2017 | 2015             | 2016 | 2017 |
| Number of people injured                           | 21   | 20   | 22   | 134              | 287  | 141  |
| Number of deaths caused by electrical accidents    | 8    | 6    | 5    | 28               | 22   | 18   |
| Number of fire victims due to electrical accidents | 9    | 13   | 12   | 44               | 45   | 47   |

**Source:** Vice Presidency of Power Transmission and Distribution, Business Group Legal Management

*There have been no injuries or deaths resulting from the provision of the water supply and sewerage service.*

| Incidents and grievances due to service provision                                                               |      |      |           |       |
|-----------------------------------------------------------------------------------------------------------------|------|------|-----------|-------|
| Indicator                                                                                                       | EPM  |      | Grupo EPM |       |
|                                                                                                                 | 2016 | 2017 | 2016      | 2017  |
| Incidents or grievances due to damages or injuries to individuals, filed in the year.                           | 54   | 41   | 222       | 97    |
| Incidents or grievances due to damages or injuries to individuals, closed in the year in favor of the company.  | 17   | 20   | 36        | 67    |
| Incidents or grievances due to damages or injuries to individuals, closed in the year in favor of the claimant. | 5    | 8    | 11        | 12    |
| Incidents due to deaths in the year in favor of the claimant.                                                   | 0    | 0    | 2         | 2     |
| Incidents or grievances due to damage to tangible property, filed in the year.                                  | 300  | 273  | 5,892     | 4,745 |
| Incidents or grievances due to damage to tangible property, closed in the year in favor of the company.         | 151  | 151  | 3,827     | 3,131 |
| Incidents or grievances due to damage to tangible property, closed in the year in favor of the claimant.        | 96   | 186  | 1,823     | 1,277 |
| Number of legal actions regarding service provision, filed by customers.                                        | 0    | 0    | 2,713     | 2,329 |
| Number of fines due to regulatory breaches.                                                                     | 0    | 7    | 152       | 72    |
| Amount of fines due to regulatory breaches (COP million).                                                       | 0    | 66   | 792       | 3,068 |
| Number of incidents due to regulatory breaches in advertising and marketing communication.                      | 0    | 0    | 0         | 0     |

Source: Business Group Legal Management, Business Management and Investments Management

## GRI Standards and EPM indicators

- 416-2** Incidents of non-compliance concerning the health and safety impacts of products and services.
- 417-3** Incidents of non-compliance concerning marketing communications.
- 419-1** Non-compliance with laws and regulations in the social and economic area.
- EU25** Number of injuries and deaths involving the organization's assets, including legal sentences, settlements, and pending legal cases of diseases.



## Customer service

Customer service at Grupo EPM is based on providing customers with satisfying experiences when interacting with the company. To do this, the group has different service schemes to address all the requests, such as customer service offices, online representatives, free customer service hotline, written assistance via mail and website, and specialized assistance to constructors and property administrators.

### Management in 2017

One of the purposes of EPM is to generate closeness with customers/users, and in accordance with this purpose, during 2017, strategies that helped improve customers' experience with EPM were implemented.

Electronic forms were made available online and can be accessed through the website [www.epm.com.co](http://www.epm.com.co), which facilitates managing requests associated with the services. As for the hotline, the Cercanía en la Línea (Closeness on the Hotline) customer service program was implemented, whose purpose is to provide an optimal and closer experience to each customer calling the hotline.

EPM has virtual channels and electronic tools for the ease and comfort of customers and users. Through the EPM mobile application, a total of 16,000 active customers were reached in 2017. They can access their bill for consultation and/or payment, look for customer service offices and vehicular natural gas stations, and report damages in public spaces.

For customers who prefer going to the offices, five of the 150 offices that EPM makes available to them were remodeled in 2017. Additionally, EPM has traditional means, such as the free customer service hotline (24/7) and written assistance via mail and website. With the 40 self-service kiosks located in 37 offices, a total of 264,322 payment tickets were generated by customers and users during 2017, improving their service experience by not having to wait in the offices for assistance.

In 2017, there were no cases or incidents associated with the lack of respect for privacy and the leakage of customers' personal data.

In order to optimize and monitor the operation of customer service at service offices, the customer service monitoring room was enabled, where there is a group of experts using different computer tools to monitor, in real time, the operation in customer service channels, in order to optimally manage them to provide memorable experiences to users. Customers were also interviewed to identify their perception regarding written responses, in order to improve communication through this channel.

In 68 regional offices, internet speed was extended to 10, 15, and 20 megabytes, which led to improving service times.

In February 2017, an agreement was signed with a specialized courier company to call and notify customers in a more agile and timely manner if they authorize being called and/or notified via e-mail. This led to agility in the mailing process, traceability registered in the CRM, and easy control.

We highlight the actions taken at CHEC through the implementation of a campaign promoting customer service channels available, where stakeholders were informed on customer service hotlines, procedures available in the company's virtual portal, registration process to receive the e-bill, registration process to be notified on suspensions scheduled on the website, and virtual advisor in five municipalities, benefiting 5,782 people through virtual assistance.

EDEQ customers were able to pay their bills using the identification number at any customer service and collection point of the company. Assistance with online representatives and a self-service kiosk were implemented in the head office, which allows users to generate copies of their bills, be informed on procedures, and make video calls to address their RCC.

At CENS, the free national hotline 01800414115 was implemented to report damages and complaints and request general information. Personalized assistance began in the town of Samoré. The chat on the company's website was enabled.

## GRI Standards and EPM indicators

**418-1** Substantiated complaints regarding concerning breaches of customer privacy and losses of customer data.

**EPM-04** Customer service channels.



**Responsible**  
contracting for  
local development



Grupo·epm®





## Responsible contracting for local development

Contracting criteria and practices that promote the sustainable development and competitiveness of the territories where Grupo EPM operates.

### Stakeholders' vision

Develop local capacities and foster sustainability within the territories where Grupo EPM is present, through practices that promote the local business environment.

### Relevance

It is a fundamental tool to leverage sustainability and competitiveness of the territories. It involves acknowledging the potential of suppliers and contractors and generating local capacities. Additionally, it potentially improves economic dynamism with revenues for the community and promotes the local business environment.

It contributes to:

- strengthening trust and reputation among stakeholders.
- responding, through business actions, to the expectations of the society.

### Risk in sustainability associated with this issue

- Requirements in contracting processes that do not allow the participation of small contractors and local suppliers.

For more detailed information on the analysis of risks associated with material topics, see the material aspects and boundaries section (General information).

### Main achievements

| Goals                                    | Achievements                                                                                                                                                                                                                                                                                                                                                                            | Accomplishment |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Capture of benefits in the supply chain. | Compliance with the established indicator was exceeded. The benefits are obtained by each of Grupo EPM's companies, where negotiation procedures and strategies defined by the supply chain are applied, such as direct negotiations, economic adjustment, non-binding proposal, technical availability agreement, joint purchases, management of materials and services, among others. | Total          |

| Goals                                                                                                                                                                                                                                                                                                              | Achievements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Accomplishment |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Implementation of the Ariba system.                                                                                                                                                                                                                                                                                | On April 24, 2017, the Ariba system started operations at EPM. This system, available in the cloud, allows the direct interaction of Grupo EPM with its suppliers and contractors, through their previous registration and then the online submission of their proposals for the contracting processes in which they wish to participate. Likewise, this platform allows interaction during the execution of the contracts that have been granted to them.                                          | Total          |
| Unification of the master list of goods and services for Grupo EPM- Cataloging.                                                                                                                                                                                                                                    | The milestones of the project were met according to the 2017 work plan. There has been an 83% progress in the unification process by 2017. It is expected to completely unified goods by 2018 and services according to the prioritization of the categories.                                                                                                                                                                                                                                       | Partial        |
| Definition of a measurement model to improve and strengthen relationships with suppliers and contractors.                                                                                                                                                                                                          | A contractor loyalty survey was conducted. It defined a baseline and a goal of 47 points based on the increase in the number of promoters (contractors) and the decrease in the number of critics (contractors) according to the contractor satisfaction survey. The goal was exceeded, reaching a score of 47.9 points, as there was a positive increase in the number of loyal and satisfied promoters who recommend EPM.                                                                         | Total          |
| Structuring of a Sustainable Ecosystem for Suppliers and Contractors (SESC) to articulate different existing work initiatives and spaces with suppliers, such as Sapiencia, Energy Cluster, Global Compact, in order to leverage their development and seek the organization's competitiveness and sustainability. | Alliances were formed with third parties to promote the SESC, including that with Grupo Redes and Corporación Tener Futuro, Ruta N, Innpulsa, Trayectoria MEGA (BHAG Trajectory) with the Medellín-Antioquia Chamber of Commerce, and Koica-UNOPS. With them, programs for the strengthening and development of EPM's suppliers are carried out.<br><br>At the end of 2017, a contract was awarded to Causa & Efecto to work for the development of ten companies with an emphasis on productivity. | Total          |

## Challenges

| Challenge                                                                                                                                                                                                                            | Year in which it is achieved | Scope and coverage |                    |                   | Achievement indicator          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|--------------------|-------------------|--------------------------------|
|                                                                                                                                                                                                                                      |                              | Territory          | Business           | Company           |                                |
| <b>Social procurement:</b><br>consolidate the implementation of the social procurement procedure at EPM and implement it in the national companies.                                                                                  | 2018                         | Colombia           | All the businesses | All the companies | Compliance with the work plan. |
| <b>Local and regional contracting:</b><br>implement the new procedure for local and regional contracting at EPM and at the national companies.                                                                                       | 2018                         | Colombia           | All the businesses | All the companies | Compliance with the work plan. |
| <b>Sustainable ecosystem for supplier and contractor development:</b><br>apply the defined model through the formalization of alliances and initiatives that promote the development of capacities in our suppliers and contractors. | 2018                         | Colombia           | All the businesses | All the companies | Compliance with the work plan. |

## GRI Standards and EPM indicators

- 103-1** Explanation of the material topic and its boundary.
- 103-2** The management approach and its components.
- 103-3** Evaluation of the management approach.
- 204-1** Proportion of spending on local suppliers.
- EPM-06** Number and value of social contracting contracts.
- EPM-07** Number, value, and type of contracts in Grupo EPM.
- EPM-08** External employment generated in Grupo EPM contracts.
- EPM-09** Suppliers' satisfaction.

## Sustainable Development Goals



## Impact on the contracting process

The process of contracting goods and services aims to meet the operation and administration needs of the organization and support social and environmental policies to contribute to the development of sustainable and competitive territories in the areas where Grupo EPM operates.

### Management in 2017

Dissemination of the new guidelines and business rules of the contracting process, which enabled the implementation of new special contracting schemes, in accordance with the strategic sourcing model of the supply chain.

Entry into operation of the Ariba system, a web platform that supports the processes of contracting, purchasing, and registration of suppliers and contractors.



*The number and values correspond to the contracts signed in each year. Figures include the national and international companies of Grupo EPM. To see the detail by company, click here:*

*<http://www.sostenibilidadgrupoepm.com.co/english/grupo-epm-total-contracts/>*

| Types of contracts in the Colombian companies of Grupo EPM |                     |                                  |                     |                                  |
|------------------------------------------------------------|---------------------|----------------------------------|---------------------|----------------------------------|
| Type of contract                                           | 2016                |                                  | 2017                |                                  |
|                                                            | Number of contracts | Value of contracts (COP million) | Number of contracts | Value of contracts (COP million) |
| Supply of goods and services                               | 21,406              | 952,905                          | 21,517              | 756,635                          |
| Contracts for a specific work                              | 150                 | 654,044                          | 136                 | 743,438                          |
| Service agreement                                          | 1,529               | 935,779                          | 1,421               | 1,361,377                        |
| Movables and small purchases                               | 294                 | 275,826                          | 225                 | 205,467                          |
| Consultancy                                                | 93                  | 49,738                           | 69                  | 173,601                          |
| Advertising agreements                                     | 182                 | 56,387                           | 73                  | 61,459                           |
| Other                                                      | 9,544               | 292,237                          | 15,367              | 875,195                          |
| <b>Total type of contracting</b>                           | <b>33,198</b>       | <b>3,216,915</b>                 | <b>38,808</b>       | <b>4,177,172</b>                 |

*Source: Vice Presidency of Shared Services and Supplies*

*The number and values correspond to the contracts signed in each year in Grupo EPM's companies located in Colombia.*

## Contracting modalities

Grupo EPM has three contracting modalities for the acquisition of its goods and services: public request for proposals (44.1%), private request for proposals (8.8%), and single request for proposal (47.1%). Moreover and as a special procedure, there are non-binding proposals (0.1%) which EPM uses when it does not have enough information on how to satisfy an identified contracting need, when it requires prior knowledge of the conditions before requesting custom developments or designs, in pilot tests to develop or acquire new capabilities, and as a supply strategy to mitigate risks, minimize the complexity in acquisition, and optimize resources.

At EPM, the most widely used modality is **public request for proposals**. Likewise, there are purchases of goods and services that are not managed by the supply chain and that, due their type and business strategy, must be acquired through another of the available modalities; they include purchase of energy, transport of gas, purchase and acquisition of real estate, fuel supply to fleet, among others.



## Total contracting in Colombia

| Modality                      | 2016                |                                | 2017                |                                |
|-------------------------------|---------------------|--------------------------------|---------------------|--------------------------------|
|                               | Number of contracts | Valor contratos (COP millones) | Number of contracts | Valor contratos (COP millones) |
| Public request for proposals  | 8,433               | 1,801,814                      | 8,997               | 1,842,880                      |
| Private request for proposals | 22,466              | 671,024                        | 28,093              | 366,134                        |
| Single request for proposal   | 2,299               | 744,077                        | 1,717               | 1,966,393                      |
| Non-binding proposal request  | 0                   | 0                              | 1                   | 2,765                          |
| <b>Total</b>                  | <b>33,198</b>       | <b>3,216,915</b>               | <b>38,808</b>       | <b>4,177,172</b>               |

The number and values correspond to the contracts signed in each year in Grupo EPM's companies located in Colombia. Values are expressed in COP million. To view the detail of single request, click here:

<http://www.sostenibilidadgrupoepm.com.co/english/special-procurement-typologies/>

## External jobs created

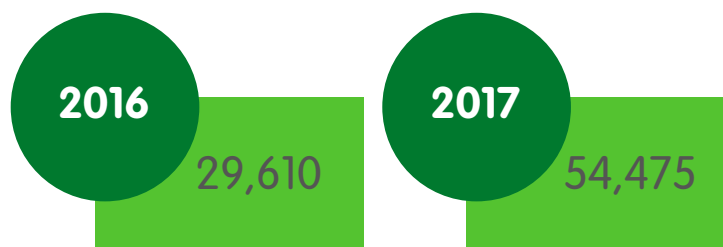
It corresponds to the external individuals linked to Grupo EPM through contracts and subcontracts for a specific work, service agreements, and consultancy, among others, that have a high labor component.

For Grupo EPM, it is important to determine this type of measurements, as they allow it to supervise the quality, stability, and equity of the jobs created, in accordance with the group's sustainability purpose and its relationship with this group.

The Ministry of Labor has penalized some companies in the country for undue outsourcing; therefore, at EPM, an outsourcing manual was established, which applies to all the company's contracting processes and provides the foundations and tools to properly outsource an activity, complying with the legal provisions.

The manual contains:

- Policy analysis and foundations of outsourcing.
- General provisions (guidelines for outsourcing).
- Guide for the implementation of tools in outsourcing.



*It corresponds to the information on the external jobs created through the contracts in force during each year in Colombia. For 2017, a total of 15,457 jobs are included in the Ituango Hydroelectric Project. To see the detail by company, click here: <http://www.sostenibilidadgrupoepm.com.co/english/external-jobs-created-in-colombia/>*

## GRI Standards and EPM indicators

**EPM-07** Number, value, and type of contracts in Grupo EPM.

**EPM-08** External employment generated in Grupo EPM contracts.

## Local, regional, national, and foreign contracting

Origin refers to the place where contracted suppliers are located. It indicates whether the supplier is local, regional, national, or foreign.

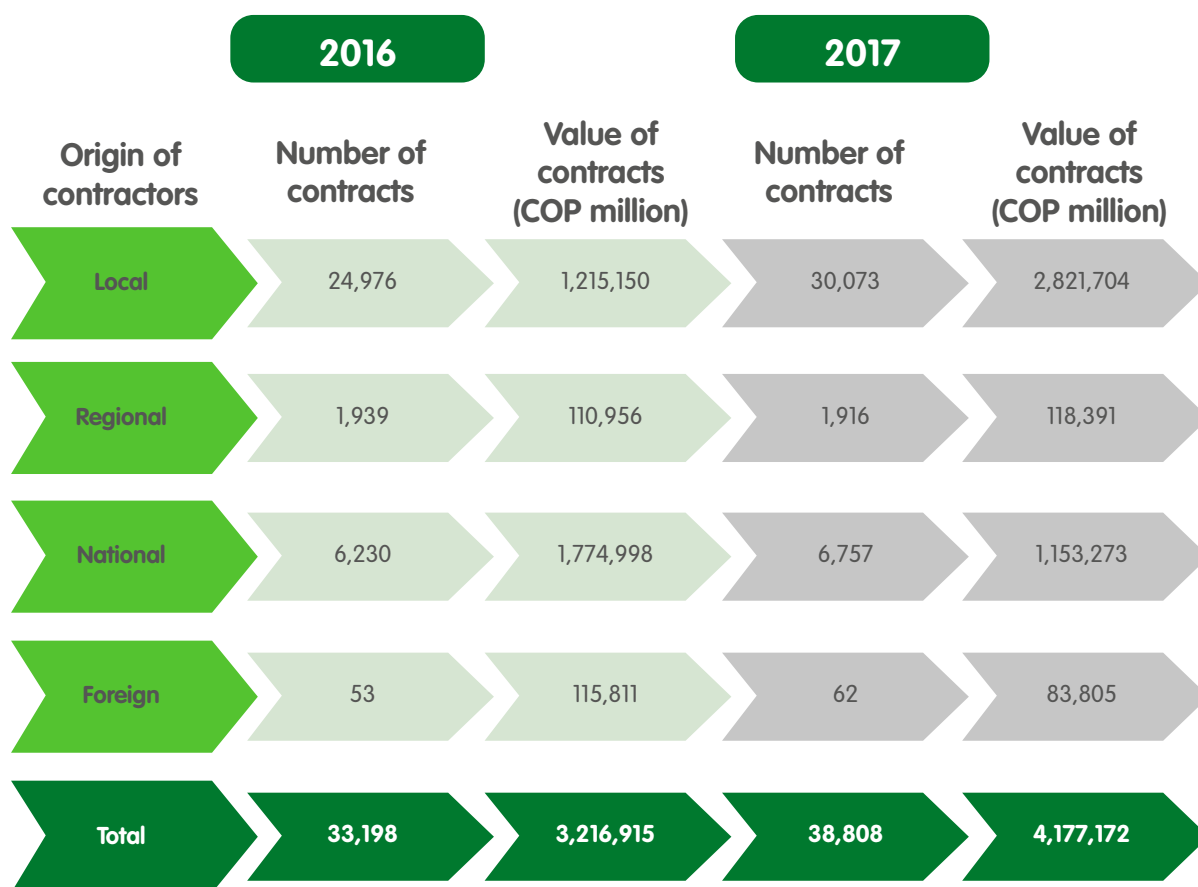
For Grupo EPM, a **local** supplier is the one located in the municipalities, small towns, and rural settlements covered by the metropolitan area of the company under evaluation. A **regional** supplier is understood as that based in the same region of the company that it supplies, but outside the metropolitan area. The national supplier is the one operating in several departments. **Foreign** suppliers are those located outside the country.

### Management in 2017

In 2017, Grupo EPM signed contracts amounting to COP 4.17 trillion, of which 67.55% were awarded to local suppliers, 2.83% to regional suppliers, 27.61% to national suppliers, and the remaining 2.0% to foreign suppliers. In other words, contracts of Grupo EPM in the region, the city, and the country amounted to COP 4.09 trillion.

Compared to 2016, there was a 35.02% decrease in the value of national contracts, which contrasts with a 8.46% increase in the number of contracts. This, because the value of local contracts increased by 132.21%, which corresponds well with an increase in the number of contracts (20.40%).

There was a decrease in foreign contracting in terms of value (38.19%), which contrasts with an increase in the number of contracts (16.98%).



The quantity and values of contracts correspond to those signed by Grupo EPM during 2017 at the national level. Values are expressed in COP million.

## GRI Standards and EPM indicators

**204-1** Proportion of spending on local suppliers.

## Social procurement

Strategy through which EPM contracts works and services from community action boards and other community associations to contribute to the strengthening and sustainable development of the communities where it operates.

It relies on regulatory, procedural, and management tools that, without detriment to transparency, economic convenience, and technical and legal rigor, favor the inclusion of suppliers and contractors at the base of the pyramid, who, otherwise, could not be considered. Social procurement aims at:

- Creating jobs through a concentric action in the area of influence of the project or service required by EPM, in such a way as to effectively contribute to leveraging the development of the communities in these areas where EPM operates.
- Reinvesting surpluses in the community impacted by the project or service required, in order to improve their quality of life and development.

### Management in 2017

In 2017, the development and the implementation of the social procurement manual were completed. The current regulations were reviewed, and a complement to the procedure was included for its execution at EPM. In turn, the preparation of the social procurement manual was shared with the national companies which were explained about the model.

- Through the social procurement program, 107 contracts for public works, supply, and provision of services amounting to COP 25.03 billion were signed at Grupo EPM. On its part, EPM executed a total of COP 24.38 billion in social procurement (representing a 41% increase in the value compared to 2016).
- Activities were held for community action boards (CAB) and other community associations regarding registration in the Ariba information system and information on the contracting process. Said activities were held at the Porce, Guadalupe, Guatapé, and La Sierra power plants; and at the EPM building for the community action boards with contracts in the metropolitan area.
- The Social Merchandising program is a social responsibility initiative of EPM for the procurement of goods to merchandising suppliers in the region, in order to provide opportunities to small entrepreneurs that seek to participate in the EPM contracting processes. During 2017, the procedure was reviewed and adjusted to define its scope, area responsible, and the implications for its implementation. This program is currently under review, in order to articulate it with the initiative of supplier development and growth and for it to have the necessary human and financial resources. For this reason, there was no execution during 2017.

| Social procurement |                     |               |                     |               |
|--------------------|---------------------|---------------|---------------------|---------------|
| Company            | 2016                |               | 2017                |               |
|                    | Number of contracts | COP million   | Number of contracts | COP million   |
| EPM                | 60                  | 23,625        | 62                  | 22,967        |
| CENS               | 1                   | 28            | 1                   | 31            |
| Emvarias           | 38                  | 48,466        | 44                  | 2,030         |
| <b>Total</b>       | <b>99</b>           | <b>72,119</b> | <b>107</b>          | <b>25,028</b> |

*Source: Vice Presidency of Shared Services and Supplies  
Contracts correspond to those signed in the corresponding year.*

## GRI Standards and EPM indicators

**102-9** Collective bargaining agreements.

**EPM-06** Number and value of social contracting contracts.

## Strengthening and development of suppliers

Grupo EPM fosters the local business environment in the regions where it operates, through contracting processes and the development of capacities in suppliers and contractors. In this sense, the strengthening and development of suppliers and contractors aims to increase competitiveness and sustainability of the production chains in the short, medium and long term, through the creation and consolidation of relationships between Grupo EPM and this group, generating bonds of trust to create specialization and complementation processes that benefit both parties and articulating the strategic planning of Grupo EPM and that of its suppliers and contractors to improve the financial, social, and environmental conditions.

### Management in 2017

The Sustainable Ecosystem for Supplier Development initiative was consolidated. It seeks to articulate different existing initiatives, actors, and work spaces with suppliers, in order to leverage their development and seek the organization's competitiveness and sustainability.

Several initiatives were carried out with different partners at the local, national, and international levels to strengthen and develop capacities in suppliers and contractors involved in the water, energy, development, and innovation businesses.

The Sustainable Ecosystem for Supplier Development initiative seeks to promote alliances with government institutions, guilds, clusters, among others, focused on generating opportunities for improvement, based on knowledge and understanding of the mutual needs and expectations, where EPM acts as a driver of development, enhancing capacities in suppliers and contractors. During 2017, progress was made in the following initiatives:

### School for training transmission linemen

- Graduation of 150 technicians in construction of transmission lines.

### Alliance with the energy cluster, the Korea International Cooperation Agency (KOICA), and UNOPS

- 57 local suppliers of the electricity sector achieved development.

### Trayectoria MEGA (BHAG Trajectory)

- We worked with three suppliers in this initiative of the Medellín-Antioquia Chamber of Commerce to strengthen business and regional competitiveness.

### Development and innovation

- A supplier joined the supplier development program, in order to seek incremental opportunities for improvement in its innovation and development management capacities.

### Business diagnosis for supplier development

- 114 suppliers participated in a diagnostic survey around eight dimensions, which allowed our suppliers and contractors to have integrated and strategic information of their companies regarding their business maturity, in order to design improvement plans and have inputs to identify opportunities for improvement.

### Propicio Program

- The first pilot project was carried out with five suppliers that participated in the business survey, in order to strengthen their strategic capacity.

### Supplier development program in coordination with Causa & Efecto

- In December 2017, the program began with ten contractors. The Monozukuri Gemba methodology, a practice in the production environment that seeks to optimize the processes of the value chain of a product, is used.

Moreover, we highlight the recognition made by the **Regional Energy Integration Commission** (abbreviated CIER in Spanish) and the **Colombian Member Committee of the CIER** (abbreviated COCIER in Spanish) to the Sustainable Ecosystem for Supplier Development initiative in the 5th CIER Energy Congress 2017, held on November 28 and 29 in the city of Medellín.

In this space, knowledge and research progress on the areas of generation, transmission, distribution, marketing, operation of markets, and corporate matters are shared.

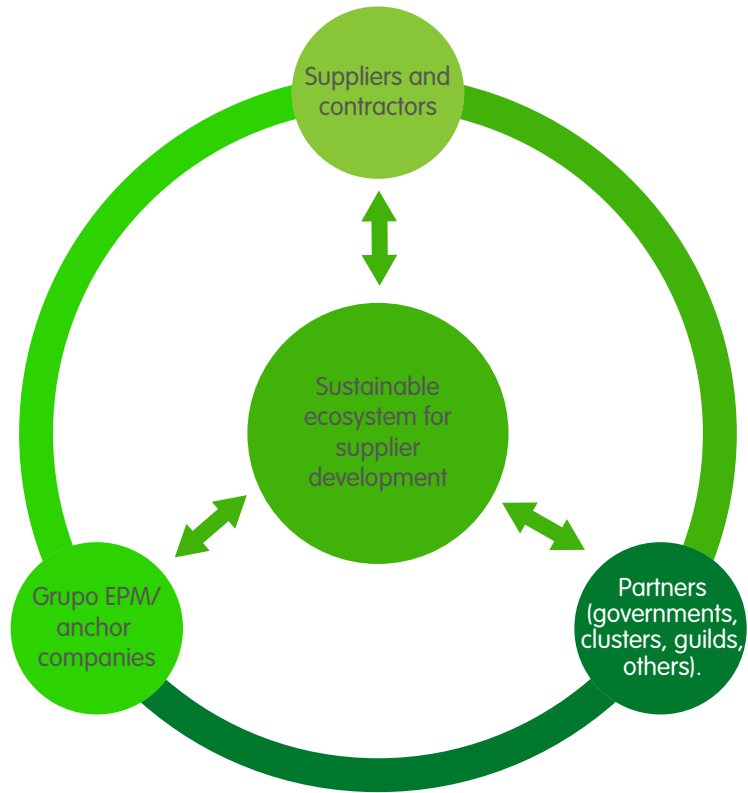
A total of 154 projects from 16 countries in Latin America belonging to 114 companies in the energy sector were presented simultaneously in seven rooms.

From EPM and with the support of partners such as ISA, Isagen, Tener Futuro, among others, two initiatives received recognition:

- Area 1 - Corporate Areas. Best project: Linemen training program
- Area 7 – Sustainable Development. Best project: Sustainable ecosystem for supplier development (SESD). Colombian electricity sector case.



## Sustainable ecosystem for supplier development



*Proposed model for the SESD, with initial implementation for EPM and with support to Grupo EPM's national companies.*

# Implementation and impact of the supply chain

The implementation of a supply chain has been one of the transformation pillars of Grupo EPM.

It is a process designed to strategically obtain the goods and services the company needs to operate, which also strengthens the relationship with its stakeholders, especially with suppliers and contractors, in order to contribute to their development in the sectors where they operate.

## Management in 2017

Compliance with the indicator established for capture of benefits was exceeded. The benefits are obtained by each of Grupo EPM's companies, where negotiation procedures and strategies defined by the supply chain are applied, such as direct negotiations, economic adjustment, non-binding proposal, technical availability agreement, joint purchases, management of materials and services, among others.

Standardization with international companies was carried out, as follows:

- Aguas de Antofagasta (Adasa) in Chile: EPM's supply chain process model was presented, and its implementation was approved.
- Eegsa from Grupo Deca II in Guatemala: a diagnosis was made, which led to the construction of a work plan to create a contracting committee for approvals, the contracting manual, model specifications for the different types of contracts, a contract management manual, a committee of expiration alerts, among others, in order to improve the contracting process in this company.

### **Supply chain planning**

- The implementation of the S&OP (Sales & Operation Planning) methodology began in the national energy companies of Grupo EPM.
- The different contracting processes of the Ituango and Santo Domingo projects were supported and constantly monitored, with the purpose of timely delivering the processes under execution.

### **Supply management**

- The contracting and contract management processes were standardized in the national energy companies.
- The strategic sourcing guideline for the national energy companies was implemented, emphasizing the use of local and regional contracting.
- The new regulatory framework of EPM was completed, which, together with the General Secretary, was taken to the national water and energy companies.

### **Materials management**

- In May 2017, the first public tender process for the sale of recycling material was made using competitive auctions with an upward trend through the Ariba system. At the end of the year, 100% of the recycling material sales took place on said platform.
- The necessary logistics was coordinated to import two cable purchases, with a total of five shippings to address the emergency at the Playas power station. These processes were carried out in record time and allowed the power station to start the restoration works in a shorter time.

## Engagement with suppliers and contractors

The engagement plan with suppliers and contractors, previously known as Recyproco, promotes the interaction, communication, and implementation of different mechanisms of discussion, consultation, and participation of suppliers and contractors with Grupo EPM.

### Management in 2017

Different events were carried out with suppliers and contractors, which included topics regarding supply chain management, such as registration in the Ariba system, human rights, code of conduct, regulations, quality of the environment, sustainable mobility plan, among others. Among these events, we highlight the Second Saber + Meeting, held between September 7 and 8, 2017, which brought together the two groups, EPM People and Suppliers and Contractors, in three opportunities and involved different partner organizations such as Comfama, Comfenalco, SENA, Fundación de discapacitados de Antioquia, the Ministry of Environment and Sustainable Development, among others.

EPM exceeded the goal defined for the supplier satisfaction survey (82.15), reaching a score of 84.73 points.

Moreover, as for the contractor satisfaction survey, the goal was 89.61, and it reached a score of 91.37 points, evidencing a positive indicator of satisfaction and an improvement in the performance compared to 2016.

For the contractor loyalty survey, the goal was 47 points, and it reached a score of 47.9 points.

Actions were taken to strengthen the relationship, communication, and closeness with suppliers and contractors of Grupo EPM; therefore, the following events were carried out in the national companies:



In total, 2,507 people representing an average of 1,253 suppliers and contractors were assisted, which means that we directly impact 25% of the total number of suppliers registered for Grupo EPM.

It is emphasized that the purpose of this engagement plan is to positively impact the measurement of indicators such as reputation (biennial measurement; next measurement in 2018), supplier and contractor satisfaction, and contractor loyalty, which showed favorable results in 2017 thanks to the actions implemented.



Likewise, the General Management decided to set a new indicator based on the satisfaction survey:

### Contractor loyalty indicator:

- **Name:** Contractor loyalty at EPM.
- **Description:** establish the level of contractor loyalty based on their relationship with EPM, determining the processes and attributes that have the greatest impact on satisfaction, needs, and expectations. In this sense, the indicator speaks in terms of: **Promoters:** contractors completely loyal to the company, who are very satisfied and speak well of it. **Critics:** unsatisfied contractors who do not speak well of the company and want to stop doing business with it. **Neutrals:** contractors who are neither promoters nor critics.
- **Goal:** increase in the number of promoters and decrease in the number of critics according to the contractor satisfaction survey.
- **IR (Indicator Result)** = % of promoters – % of critics
- **Goal for 2017:** 47 points.

Regarding the survey, there is a positive increase in the number of promoters (more loyal and more satisfied and speak well of EPM), exceeding the goal for 2017 in contractors, with a **result of 47.9 points**.

It is important to note that the engagement plan is expected to be implemented at Grupo EPM, where we have been working for three years with the national energy companies, and in 2016, the water companies, Emvarias, and Fundación EPM were included in the plan.

### GRI Standards and EPM indicators

**EPM-09** Suppliers' satisfaction



**Water  
care**



**Grupo·epm®**





## Water care

Sustainability of water resources depends on their quality, deficit, and excess, along with the comprehensive management of watersheds in order to prevent their depletion. Moreover, it is influenced by the unplanned growth in demand for a limited net supply due to conflicts of water and soil use and to insufficient and inadequate actions to manage risks associated with socio-natural events.

Grupo EPM, as an organization providing residential public utilities, is aware of its interdependence with water and, consequently, is committed, beyond its legal obligations, to contribute to its care at the sources, in the watersheds supplying its systems and reservoirs, in its direct operations, and in its relationship with its stakeholders.

### Stakeholders' vision

Contribution to the protection, recovery, management, and sustainable use of watersheds, natural resources, and environmental goods and services provided by them, necessary for the sustainability of Grupo EPM and its environment, as they make it possible to provide public utilities and to improve the quality of life in the communities settled in the areas where the group's companies operate.

### Relevance

The economic, environmental, and social values are influenced by water deficit, excess, and quality, which can cause problems in productive activities, infrastructure, people's lives, and ecosystem function, as well as generate critical scenarios in terms of water availability and shortage or floods, along with their harmful effects on the quality of life of the population, their economic activities, and ecosystems. The most important aspects regarding availability are associated with the supply of drinking water for the population, the industrial processes, the power generation, and the maintenance of ecosystem functions.

### Risks in sustainability associated with this topic

- Lack of availability of water resources.
- Lack of optimization of water resources in the development of productive activities and services.

For more detailed information on the analysis of risks associated with material topics, see the material aspects and boundaries section (General information).

## Main achievements

| Goals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Achievements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Accomplishment |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <p><b>Water protection:</b> implement watershed protection initiatives in priority areas for conservation to impact 17,212 hectares (EPM, CHEC, and Aguas de Urabá).</p>                                                                                                                                                                                                                                                                                                                                              | <p>In 2017, initiatives that had an impact in the protection of 22,575.5 hectares in watersheds supplying systems and reservoirs were developed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                | Total          |
| <p><b>Non-revenue water management:</b> achieve, in 2017, through non-revenue water actions for the control of technical and commercial losses, an estimated volume of losses in the socioeconomic level range of water losses for the EPM system between 85 and 90 million m<sup>3</sup>.</p>                                                                                                                                                                                                                        | <p>The volume of losses was 86.6 million m<sup>3</sup>. Likewise, the loss rate per billed user (LRBU) was 6.26 m<sup>3</sup>/user/month, meeting the regulatory standard. The results obtained make EPM a national reference in the management of non-revenue water. The regulatory standard (Resolution 688 of 2014 by the CRA) seeks that water suppliers achieve, in ten years, a reduction of 75% of the difference between the value at year zero (2014 or 2015) and the value considered standard of efficiency LRBU* set at 6 m<sup>3</sup>/user/month.</p> | Total          |
| <p><b>DWTP:</b> have sludge treatment systems in nine of the drinking water treatment plants located in the Valle de Aburrá.</p>                                                                                                                                                                                                                                                                                                                                                                                      | <p>Progress was made in the construction of the systems in the Ayurá, Caldas, and Manantiales plants, which will start operations in the first quarter of 2018.</p>                                                                                                                                                                                                                                                                                                                                                                                                 | Partial        |
| <p><b>SWMP (Sanitation and Wastewater Management Plan):</b> make progress in the reduction of the pollutant load discharged into Medellín River so that, in the last quarter of 2017, the Aguas Claras WWTP begins operating and so that, in 2019, the projects of modernization and expansion of the San Fernando WWTP start operations, ensuring quality of the treated effluents of 70 mg/l of BOD5 and 70 mg/l of TSS, in accordance with the maximum permissible limits defined in Resolution 00631 of 2015.</p> | <p>The entry into operation of the Aguas Claras WWTP has been delayed due to breaches by the contractor, which led EPM to process the application of Decree 2141 of 2016 before the Metropolitan Area of the Valle de Aburrá. The plant is expected to start operating in the second half of 2018 and to be stabilized and comply with Resolution 631 of 2015 in the last quarter of 2018. The modification of the environmental license was obtained to start the expansion project of the San Fernando WWTP.</p>                                                  | Partial        |



| Goals                                                                                                                                                                                                                                                                                                                          | Achievements                                                                                                                                                                                                                                                                                                                | Accomplishment |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <p><b>Construction of the Malambo WWTP:</b> its purpose is to reduce the pollutant load discharged into Malambo and Mesolandia swamps, with an effluent quality that complies with the provisions of Resolution 00631 of 2015.</p>                                                                                             | <p>The construction of the WWTP began, which is financed with resources from the Colombian government and the Atlántico Governor's Office, which were managed by EPM. As part of the SWMP, progress was also made in the construction of the Air Force collector sewer.</p>                                                 | Partial        |
| <p><b>Valle de San Nicolás Sanitation Project:</b> modernize the El Retiro WWTP to allow for the tertiary treatment of wastewater, protecting the use of Negro River as a water source for water supply systems, and construct the El Escobero and Don Diego WWTPs so as to ensure compliance with Resolution 631 of 2015.</p> | <p>A transaction agreement was signed with Ticsa for the design and construction of the modernization project of the El Retiro WWTP, and progress was made in the contractual process for signing the transaction agreement with this same affiliated company for the designs and construction of the El Escobero WWTP.</p> | Partial        |

## Challenges

| Challenge                                                                                                                                                                                                                        | Year in which it is achieved | Scope and coverage                                                                                        |                                          |                                          | Achievement indicator                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                  |                              | Territory                                                                                                 | Business                                 | Company                                  |                                                                                                          |
| <p><b>Water Protection Indicator (WPI):</b> implement watershed protection initiatives in priority areas for conservation, in such a way that the annual goal set for Grupo EPM is achieved. Goal for 2018: 17,455 hectares.</p> | 2018                         | <p>Watersheds of Porce, Nare, La Cristalina, and others in Antioquia. Chinchiná and others in Caldas.</p> | <p>Water supply<br/>Power generation</p> | <p>EPM<br/>CHEC<br/>Aguas Regionales</p> | <p>Water Protection Indicator: # of ha with protection initiatives implemented/# ha to be protected.</p> |

| Challenge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Year in which it is achieved | Scope and coverage                                                                    |                                     |                                                          | Achievement indicator                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|-------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              | Territory                                                                             | Business                            | Company                                                  |                                                                                                                                       |
| <p><b>Define WPI goals for T&amp;D:</b> define activities and goals for the T&amp;D business that will contribute to compliance with the WPI and that are aligned with the Integrated Water Resources and Biodiversity Management strategy.</p>                                                                                                                                                                                                                                                  | 2018                         | Antioquia, Norte de Santander, Santander Quindío and Caldas                           | Power transmission and distribution | EPM<br>CENS<br>ESSA<br>EDEQ<br>CHEC                      | Goals set by the companies of the power transmission and distribution business to contribute to compliance with the WPI of Grupo EPM. |
| <p><b>Non-revenue water in the affiliates:</b> achieve, in the water supply systems of the territories identified, the rates, defined by Resolution 688 by the CRA, regarding the LRBU (loss rate per billed user expressed in m<sup>3</sup>/user/month) which seeks that water suppliers achieve, in ten years, a reduction of 75% of the difference between the value at year zero (2014 or 2015) and the value considered standard of efficiency LRBU* set at 6 m<sup>3</sup>/user/month.</p> | 2025                         | Urabá region<br>Western region<br>Eastern Antioquia region<br>Municipality of Malambo | Water supply                        | Aguas de Malambo<br>Aguas Regionales<br>Aguas de Oriente | LRBU - Loss Rate per Billed User.                                                                                                     |

| Challenge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Year in which it is achieved | Scope and coverage        |                        |                  | Achievement indicator                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------|------------------------|------------------|----------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              | Territory                 | Business               | Company          |                                                                                                          |
| <p><b>Sanitation and Wastewater Management Plan (SWMP):</b> start operations, after the stabilization of the biological processes, at the wastewater treatment plants in the municipalities of Apartadó, Carepa, Chigorodó, Turbo, and Mutatá, in order to achieve a reduction in the pollutant load discharged into the watersheds of the Urabá region, guaranteeing compliance with the standards established in Resolution 631 of 2015. Compliance with this challenge depends on the management of resources to make the investment, either through contributions under condition or under the figure of works through taxes).</p> | 2022                         | Urabá region              | Wastewater management  | Aguas Regionales | BOD, COD, TSS, and other physico-chemical parameters required by Resolution 631 of 2015.                 |
| <p><b>Leachate load at La Pradera:</b> reduce the pollutant load discharged into the water sources as a result of the leachate generated in the La Pradera landfill. Increase by 60% the quality of the downstream discharges of the plant as of December, as long as the second phase of the leachate treatment plant is operating and stabilized.</p>                                                                                                                                                                                                                                                                                | 2019                         | Colombia - Antioquia      | Solid waste management | Emvarias         | Compliance with BOD, COD, TSS, and other physico-chemical parameters required by Resolution 631 of 2015. |
| <p><b>Drinking Water Treatment Plant (DWTP):</b> have sludge treatment systems in nine of the drinking water treatment plants located in the Valle de Aburrá.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2018                         | Valle de Aburrá- Colombia | Water supply           | EPM              | Number of plants with sludge treatment systems implemented.                                              |

| Challenge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Year in which it is achieved | Scope and coverage               |                       |                  | Achievement indicator                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------------|-----------------------|------------------|----------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              | Territory                        | Business              | Company          |                                                                                                          |
| <p><b>SWMP:</b> start operations at the Aguas Claras WWTP in the second half of 2018 to make progress in the reduction of the pollutant load discharged into Medellín River, and start the projects of modernization and expansion of the San Fernando WWTP in 2019, after the stabilization of the biological processes, ensuring quality of the treated effluents of 70 mg/l of BOD5 and 70 mg/l of TSS, in accordance with the maximum permissible limits defined in Resolution 00631 of 2015.</p> | 2019                         | Valle de Aburrá-Colombia         | Wastewater management | EPM              | Compliance with BOD, COD, TSS, and other physico-chemical parameters required by Resolution 631 of 2015. |
| <p><b>Construction of the Malambo WWTP:</b> reduce the pollutant load discharged to Malambo and Mesolandia swamps, with an effluent quality that complies with the provisions of Resolution 00631 of 2015.</p>                                                                                                                                                                                                                                                                                        | 2019                         | Municipality of Malambo-Colombia | Wastewater management | Aguas de Malambo | Compliance with BOD, COD, TSS, and other physico-chemical parameters required by Resolution 631 of 2016. |
| <p><b>Valle de San Nicolás Sanitation Project:</b> modernize the El Retiro WWTP to allow for the tertiary treatment of wastewater and contribute to the protection of Negro River as a water source for water supply systems, as well as to construct the El Escobero and Don Diego WWTPs so as to ensure compliance with Resolution 631 of 2015 once the biological processes are stabilized.</p>                                                                                                    | 2019                         | Western Antioquia-Colombia       | Wastewater management | EPM              | BOD, COD, TSS, and other physico-chemical parameters required by Resolution 631 of 2015.                 |

| Challenge                                                                                                                                                                                                     | Year in which it is achieved | Scope and coverage                                                    |                                                               |                                                       | Achievement indicator                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                               |                              | Territory                                                             | Business                                                      | Company                                               |                                                                                                                                                          |
| <b>Efficient Use and Saving of Water:</b> make progress in the implementation of initiatives and programs that lead to the efficient use and saving of water in the facilities of the companies of Grupo EPM. | 2021                         | Antioquia<br>Caldas<br>Santander<br>Norte de Santander<br>El Salvador | Power transmission and distribution<br>Solid waste management | EPM-T&D<br>CHEC<br>ESSA<br>CENS<br>Delsur<br>Emvarias | Comparison of water consumption in the facilities of the group's companies; m <sup>3</sup> consumed in the reporting year compared to the previous year. |

### GRI Standards and EPM indicators

- 103-1** Explanation of the material topic and its boundary.
- 103-2** The management approach and its components.
- 103-3** Evaluation of the management approach.
- 303-1** Water withdrawal by source.
- 303-3** Water recycled and reused.
- 306-1** Water discharge by quality and destination.
- EPM-01** Conservation areas.
- EPM-10** Water protection.

### Sustainable Development Goals



## Water conservation

The protection and improvement of the watersheds as well as the environmental services they provide are crucial to ensure availability of the water resource, sustainability of the territories, and quality of life of the communities benefiting from such services.

The environmental conditions of the watersheds have a direct impact on the water sources supplying our reservoirs and other systems. To help improve these conditions and prevent risks associated with availability of the water resource in its operations and in the populations served, Grupo EPM undertakes, directly and with other participants, programs and projects for the comprehensive management of the water resource and biodiversity, by developing initiatives associated with support to the system of protected areas, restoration and reforestation, promotion of sustainable practices and uses, environmental offset, payment for environmental services, environmental awareness, and continuity of the environmental services that they provide.

### Management in 2017

- Commitment to the progress towards compliance with the **water protection** goal established in the BHAG of Grupo EPM, which implies developing, **by 2025**, different **initiatives to influence the protection of 137,000 hectares** in the watersheds supplying our systems and reservoirs.
- **Protection of water resources in the basins of Porce** (Riogrande, Aburrá, Porce-Alto, Nechí rivers), Nare (La Fe and Negro-Nare rivers), **Cauca** (influence areas of the Ituango Project), **Chinchiná**, the basins supplying **Aguas de Urabá**, among others, with an **impact on 22,575 hectares** through the development of the following strategies:
  - **Forest conservation** (public and private protected areas, BanCO2): 8,028 hectares.
  - **Restoration and reforestation**: 5,061 hectares.
  - **Sustainable practices and uses** (silvopastoral and agroforestry systems, live fences and barriers, isolated trees, good agro-environmental practices, erosion control, rural basic sanitation systems): 1,837 hectares.
  - **Environmental offset and new protected areas** (purchase of lands for offset and new areas for the protection of reservoirs): 7,649 hectares.
- **Conservation and restoration of our own areas**: we protect over 55,918 hectares of forests and natural ecosystems owned by the Grupo EPM's companies in protected areas of our systems and reservoirs.

- **Strengthening of the alliances** between the Grupo EPM's companies and public and private actors, for the protection of the watersheds supplying the reservoirs and systems for the generation of hydroelectric power, the water supply, and the sustainability of such watersheds.

**The following are some of the main programs and initiatives developed by the Grupo EPM's companies to protect the watersheds that supply their reservoirs or systems:**

- EPM, in partnership with the Centre for Science and Technology of Antioquia (abbreviated CTA in Spanish), developed actions for the protection of the area of source of the La López and El Viento streams which supply the municipality of Barbosa, within the framework of the Plan Quebradas (Streams Plan) led by the metropolitan area of the Valle de Aburrá.
- Through an agreement with CuencaVerde, progress was made in the implementation of restoration, reforestation, payment for environmental services, sustainable use practices, and environmental awareness initiatives in the watersheds supplying the Riogrande II and La Fe reservoirs.
- EPM monitors water flows and water quality in the reservoirs on a monthly basis and in the water sources supplying EPM's reservoirs and water supply systems twice yearly.
- EPM designed a water quality indicator adjusted to the conditions of the water sources supplying the Valle de Aburrá's water supply system, with the aim of being able to carry out historical comparative analyzes and analyzes among sources, that allow defining the most adequate strategies for the protection of the water resource.
- As part of the strategies for the protection of water quality at EPM's water supply reservoirs, an ultrasound equipment was acquired in 2017 for the control of algae and cyanobacteria in the Riogrande II reservoir, a technology that had already been implemented in the La Fe reservoir in the previous years.
- Participation in basin councils, a consultative mechanism that allows using the knowledge, experiences, and perspectives of the different actors present in the territory for a better management. EPM participates in the basin councils of the Aburrá River, Negro River, Riogrande, Nare River, Samaná Norte River; CHEC, in the Chinchiná River Basin Council; and Aguas Regionales, in the Management Plan for the Urabá Aquifer and in the León River Basin Council.
- Participation in the implementation of the talks for water safekeeping in Eastern Antioquia. This agreement was signed in 2016, and EPM is committed to actions in 5 of 13 agreements.
- Conceptual assessment of the status of the water supply and the installed capacity of the catchment infrastructure for the supply system of the Aburrá and San Nicolás valleys based on the projected demand, with projections to 2050. Four guidelines were defined in such assessment, in order to guarantee the supply. The second guideline is related to the implementation of actions to guarantee availability in the supply basins.

- Within the framework of the **forestry development** program, nearly two million seedlings were provided to the communities and owners of properties located in the watersheds of interest. This plant material is used for the protection of river banks, live fences, and restoration and improvement of forests.
- **Support to the BanCO2 program:** initiative to voluntarily compensate farmer families for environmental services. The program aims at developing a forest conservation and restoration system. Grupo EPM is involved in the program by supporting farmers so that they take care of the forests, protect the fauna, and contribute to the conservation of the environmental services they provide. Over the past years, agreements have been signed for the protection of 6,115.64 hectares of forests. The following are the companies of the group involved in the program:
  - **EPM:** it is involved in the program in order to make voluntary compensations for the conservation of 3,239.14 hectares in forest cover, which contributes to the protection of biodiversity and water resources, mainly in the eastern and northern regions of Antioquia.
  - **CHEC:** it joined the BanCO2 program for the protection of 904 hectares of forests through alliances with municipalities, environmental authorities, and property owners. Moreover, the company acquired 300 hectares in the upper basin of Chinchiná River, which will allow continuing making progress in CHEC's commitment to the protection of water and biodiversity.
  - **EDEQ:** it is involved in the protection of 16.5 hectares of remaining forests of great biological and ecosystem value in the municipalities of Génova, Finlandia, and Circasia in the department of Quindío, located in the micro-basins that supply rural and municipal water supply systems.
  - **CENS:** it signed an agreement with Corponor to contribute, through compensations for environmental services, to the protection of 1,032 strategic hectares in the Sisavita Regional Natural Park and the Santurbán Páramo.
  - **ESSA:** it is involved in the conservation of 410 hectares of forest, through an alliance with the Regional Autonomous Corporation of Santander (abbreviated CAS in Spanish) in the area of influence of CAS and ESSA E.S.P. in the department of Santander.
  - **Aguas Regionales:** implementation of a payment strategy for environmental services through an agreement with Corpourabá and EPM for the conservation and restoration of 514 hectares of natural forests in the Abibé mountains, from where regional water supplies systems are supplied.
- **Las Camelias Regional Integrated Management District (abbreviated DMRI in Spanish):** support to the implementation of forest conservation, environmental education, payment for environmental services, environmental sanitation, ecotourism, efficient stoves, and ISWM initiatives. In 2017, we highlight the formulation of the DMRI management plan, the design and implementation of the communications strategy, and the promotion of conservation initiatives.



- **Eegsa in Guatemala:** in the development of its environmental policy, it signed an agreement for the Strengthening of the Protected Area of Cerro Alux with the Foundation for the Conservation of Natural Resources and Environment in Guatemala (abbreviated FCG in Spanish) and the National Council for Protected Areas (abbreviated CONAP in Spanish).
- **Public and private alliances:** Grupo EPM upholds its commitment to sustainability in the territories where it operates and establishes alliances with public and private actors to develop projects and initiatives whose aim is to protect the environment, especially water resources. To learn about these alliances in greater detail, see the shared responsibility with the environment section in this report. Likewise, the following are some of the most relevant alliances:
  - Joint participation between EPM and Cornare in the implementation of projects of environmental conservation and sustainable use of natural resources in eastern Antioquia.
  - Combination of efforts between EPM and Corantioquia to develop conservation and preservation actions in ecosystems of interest in the basins of the Grande, Chico, Guadalupe, and Porce rivers.
  - Combination of efforts between EPM and the University of Antioquia to carry out an integrated management of biodiversity in the areas of interest for power generation.
  - Agreement with the CuencaVerde corporation for the implementation of initiatives to protect the watersheds that supply the Riogrande II and La Fe reservoirs.
  - Alliance between EPM and UNDP, Cornare, Corantioquia, municipal authorities, and other institutions, with the purpose of promoting development in the region of the Nare-Magdalena, Porce-Cauca, and other basins, in order to contribute to the sustainability of the environmental and business environment of the power generation business.
  - Agreement between Eegsa and CONAP and FCG to strengthen the protected area of Cerro Alux springs.
  - Agreements between Más Bosques, the CARs, and some companies of Grupo EPM, CHEC, EDEQ, CENS, and ESSA for the implementation of the BanCO2 program in areas of interest.
- **Awareness-raising on the protection of water and the environment:** as part of the strengthening of the water culture, Grupo EPM held events during the celebration of environmental anniversaries, environmental awareness-raising activities in its areas of influence, participation in the Aló EPM radio program, dissemination of information on the matter in different publications, talks on environmental issues in different events, and deployment of an intense campaign regarding water care, watershed protection, and efficient use and saving of water.

## GRI Standards and EPM indicators

**EPM-01** Conservation areas.

**EPM-10** Water protection.

# Water consumption

Through this action, the Grupo EPM's companies analyze their use of water in production processes and facilities, as well as the type of supply sources, in order to implement initiatives and projects that allow them to use it in a more efficient way, thus contributing to the sustainability of this vital resource.

## Management in 2017

The water consumed by the Grupo EPM's companies comes mainly from surface sources and supply systems, and it is used in production processes, domestic uses, and cooling systems.

Below there is a list of the most relevant data related to the group's water consumption and the programs and initiatives associated with the efficient use of water during 2017:

- 22,573 Mm<sup>3</sup> was the total water consumption; 90.33% corresponds to EPM.
- 99.72% of the total consumption corresponds to surface water.
- 98.21% of the surface water was used in power generation.
- 1.78% of the surface water was used in water supply.
- 0.26% of the total consumption corresponds to seawater.

The group reported 38% rise in the total water consumption, mainly explained by the increase in the generation of energy, which meant the use of 6,000 Mm<sup>3</sup> of water more than in 2016 and the increase of 76.6 Mm<sup>3</sup> in the supply of water due to the inclusion of the consumption by Aguas de Antofagasta in this report. Savings in water consumption were achieved thanks to the implementation of the following programs:

- Savings of 2.9 Mm<sup>3</sup> in the water consumed by the DWTPs of EPM, thanks to the use of recirculated water from backwashing. This value is comparable to the total amount of water treated in the Barbosa and Aguas Frías water purification plants for one year. The amount of recirculated water depends on the quality of the sources and it should not affect the quality of the drinking water produced in the plant.
- Reuse of 29.5 Mm<sup>3</sup> of water for power generation.
- The program for the reduction of non-revenue water reached a volume of losses of 86.6 Mm<sup>3</sup>, thus achieving the goal set for 2017. The loss rate per billed user (LRBU) was 6.26 m<sup>3</sup>/user/month, which makes EPM a national benchmark in the management of non-revenue water, considering the regulatory standard (Ruling CRA688 of 2014).
- Implementation of programs and initiatives for efficient use of water in EPM, CENS, ESSA, CHEC, and Delsur facilities.

The following are the main initiatives and programs implemented by Grupo EPM in order to save and make an efficient use of water in 2017:

- The Barbosa, Aguas Frías, Manantiales, Ayurá, Caldas, San Antonio de Prado, San Cristobal, La Cascada, La Montaña, and Villa Hermosa DWTPs continue with the water recirculation program for backwashing, which makes it possible to make a more efficient use of water in the direct operations of the DWTPs.
- All the **national water and sanitation affiliates** took measures to **reduce the volume of non-revenue water**, including systematic search for leaks, subdivision of systems, installation of micrometers and macrometers, and educational and awareness campaigns for the community on the proper use of services.
- Use of the **remainder of water in tank cars** for cleaning and gardening activities, resulting in savings of 344 m<sup>3</sup>, thus optimizing the consumption of water in the system; a value comparable to the water consumption of 23 homes in a month.
- **Emvarias** started the implementation of its **program for the efficient use** of water in operating facilities. The company expects savings of 7,170 m<sup>3</sup> in water consumption for the period 2017 – 2021.
- All the facilities of the **EPM's power generation plants** have permanent **plans for the efficient use of water**. In 2017, given their completion dates, plans were evaluated and updated, with the exception of Porco III. The improvement measures will be implemented from 2018.
- The **power transmission and distribution companies** of the business group (EPM, CHEC, EDEQ, CENS, ESSA, Delsur, and ENSA) have **programs for the efficient use of water**, through which they have implemented initiatives for the improvement of their infrastructure and technology in order to save and make efficient use of water, as well as awareness and training programs for its employees to the same end.
- **Savings of 17% of the water used in the EPM's T&D substations** and installation of waterless urinals, water-saving sinks, and drip irrigation systems in gardens are some remarkable measures taken by ENSA. ESSA made some adaptations to its hydraulic and sanitary infrastructure and used the water resulting from its air condenser system. CHEC met the goal of not increasing the average water consumption in its facilities by more than 10%. The goal of reducing by 3% the water consumption in EDEQ was not met due to the increase in the amount of employees; however, the water consumption per capita did not rise.
- **Adasa conducts a research study on solutions for the desalination process**, which includes analysis of wastewater reuse to minimize the environmental impact on the region, thanks to the obtaining of microbial biomass as biofertilizer for green areas and reuse of brines produced by the desalination plant for aquaculture and biotechnological purposes.
- In addition, **Adasa** implemented the **recirculation of wastewater** from the arsenic abatement process at the Cerro Topater filtration plant. The estimated volume of recirculation is 873,775 m<sup>3</sup>.

- **Ticsa** water consumption is not reported because it operates wastewater treatment systems of other companies. The company is not the owner of these systems. However, it is worth highlighting the development of some initiatives such as the **installation of waterless urinals for the efficient use of water** in the facilities where it operates.
- The group's companies develop, directly and along with other actors, **programs and activities to raise awareness and promote behavior changes regarding water conservation**, from the supply sources to the efficient and rational use of water in the activities developed by customers and users.

| Surface water consumption (Thousands of m <sup>3</sup> ) |                        |               |               |               |
|----------------------------------------------------------|------------------------|---------------|---------------|---------------|
| Grupo EPM                                                |                        |               |               |               |
| Business / Facilities                                    |                        | 2015          | 2016          | 2017          |
|                                                          |                        | Surface water | Surface water | Surface water |
| Power generation                                         |                        | 15,367,853.06 | 15,987,292.79 | 22,108,783.55 |
| Transmission and distribution                            |                        | 0.04          | 0.038         | 0.035         |
| Water and sanitation                                     | Water supply           | 336,215.87    | 325,174.69    | 401,806.00    |
|                                                          | Solid waste management | 93.31         | N.R.          | 121.30        |
| Ituango Project                                          |                        | 115.13        | 117.38        | 134.53        |
| Total                                                    |                        | 15,704,277.41 | 16,312,584.90 | 22,510,845.42 |

Surface water consumption increased, mainly due to:

- The increase in the hydroelectric power generation in 2017, which represented a 38% rise in the use of water, because, among other things, the Guatapé plant restarted 100% of its operations and Porce II, Porce III, and Tasajera started to generate more energy to meet the country's demand.
- The increase in water consumption for the water supply service is explained by the inclusion in this report of the consumption by Adasa. The variation with respect to the companies that reported during the previous year is only 1%.
- In 2017, there was a consumption of 3.2 million of m<sup>3</sup> of groundwater, of which 99% were used by Aguas Regionales for the supply of water in Urabá, and 58.5 million of m<sup>3</sup> of seawater that were used by Aguas de Antofagasta for the supply of water in that region.

| <b>Supply system water consumption (Thousands of m<sup>3</sup>)</b> |                              |                      |                      |                      |
|---------------------------------------------------------------------|------------------------------|----------------------|----------------------|----------------------|
| <b>Grupo EPM</b>                                                    |                              |                      |                      |                      |
| <b>Business / Facilities</b>                                        |                              | <b>2015</b>          | <b>2016</b>          | <b>2017</b>          |
|                                                                     |                              | <b>Supply system</b> | <b>Supply system</b> | <b>Supply system</b> |
| <b>Power generation</b>                                             |                              | 82.45                | 9.14                 | 10.33                |
| <b>Transmission and distribution</b>                                |                              | 208.93               | 158.74               | 156.70               |
| <b>Gas</b>                                                          |                              | 0.89                 | 0.39                 | 2.13                 |
| <b>Water and sanitation</b>                                         | <b>Water supply</b>          | 29.34                | 18.92                | 21.00                |
|                                                                     | <b>Wastewater management</b> | 209.82               | 257.41               | 173.00               |
| <b>EPM building and other facilities</b>                            |                              | 0.00                 | 173.36               | 175.54               |
| <b>Total</b>                                                        |                              | <b>577.72</b>        | <b>617.96</b>        | <b>538.71</b>        |

- 13% decrease in the total water consumption is mainly due to the lower use of water from the supply system in wastewater facilities. This decrease corresponds mainly to the consumption in the sludge treatment building of the San Fernando WWTP; however, there is no operational change that explains it and that is why information is still under analysis in order to determine the causes.
- Although there is a general decrease in the consumption of water from supply systems, some facilities of the power generation and gas businesses report an increase due to the development of civil works in the La Tasajera compressor station.
- The water consumption of the EPM building in 2017 was 66,274 m<sup>3</sup>, corresponding to a 3.13% decrease, compared to the previous year. The average monthly consumption per capita in the EPM building was 1.26 m<sup>3</sup>/person/month, thus exceeding the goal of 1.31 m<sup>3</sup>/person/month.

**Water consumption by production and cooling process (Thousands of m<sup>3</sup>)  
Grupo EPM**

| Business                                                |                               | 2015                 |                   | 2016                 |                  | 2017                 |                 |
|---------------------------------------------------------|-------------------------------|----------------------|-------------------|----------------------|------------------|----------------------|-----------------|
|                                                         |                               | Production           | Cooling           | Production           | Cooling          | Production           | Cooling         |
| <b>Power generation</b>                                 |                               | 15,206,752.413       | 160,883.95        | 15,908,937.72        | 78,208.67        | 22,105,322.50        | 3,348.20        |
| <b>Water and sanitation</b>                             | <b>Water supply</b>           | 336,215.87           | 0.00              | 325,174.69           | 0.00             | 463,604.00           | 0.00            |
|                                                         | <b>Wastewater management</b>  | 199.55               | 0.00              | 245.14               | 0.00             | 161.87               | 0.00            |
|                                                         | <b>Solid waste management</b> | 93.31                | 0.00              | N. A.                | N.A.             | 90.19                | N.A.            |
| <b>EPM building and other administrative facilities</b> |                               | N.A.                 | 0.00              | N.A.                 | 24.66            | N.A.                 | 23.69           |
| <b>Total</b>                                            |                               | <b>15,543,261.14</b> | <b>160,883.95</b> | <b>16,234,357.54</b> | <b>78,233.33</b> | <b>22,569,178.56</b> | <b>3,371.90</b> |

- Increase of 38% in the consumption of water for production processes due to the increase in the generation of hydroelectric power during 2017, as a result of the Guatapé plant restarting 100% of its operations and the Porce II, Porce III, and Tasajera plants starting to generate more energy to meet the country's demand.
- Decrease in the use of water for cooling processes, due to lower power generation at La Sierra thermal power station.
- The increase in water consumption for the supply service is explained by the inclusion in this report of the consumption by Adasa. The variation with respect to the companies that reported during the previous year is only 1%.
- The figures of productive consumption for power generation in 2016 were adjusted because they did not include water consumption for generation by CHEC.

| Volume of recirculated/reused water (Thousands of m <sup>3</sup> ) |              |                  |                  |                  |
|--------------------------------------------------------------------|--------------|------------------|------------------|------------------|
| Grupo EPM                                                          |              |                  |                  |                  |
| Business                                                           |              | 2015             | 2016             | 2017             |
| Power generation                                                   |              | 24,609.59        | 31,179.22        | 29,588.56        |
| Water and sanitation                                               | Water supply | 3,654.86         | 1,540.96         | 2,906.31         |
| <b>Total</b>                                                       |              | <b>28,264.44</b> | <b>32,720.17</b> | <b>32,494.87</b> |

- 91% of the water recirculated in production processes corresponds to power generation by EPM. The variation in the water recirculation figure is the result of the lack of records from the Playas power station, due to a fire that affected some information systems of this station.
- 2.9 Mm<sup>3</sup> correspond to water recirculation for backwashing in DWTPs. The amount of recirculated water depends on the quality of the sources. Water is recirculated as long as it does not affect the quality of the drinking water produced in the plant.
- Some activities for the reuse of water have been implemented in the EPM building and the Los Cururos wind farm. This includes the operation of the channel surrounding the EPM building and the gardens of the Los Cururos wind farm.

## GRI Standards and EPM indicators

**303-1** Water withdrawal by source.

**303-3** Water recycled and reused.

# Wastewater management

Grupo EPM's companies take measures for managing effluents\* resulting from their activities and processes.

The group manages the wastewater produced in its own facilities and that collected from its users through the sanitation service, thus avoiding the direct discharge, without treatment, of millions of m<sup>3</sup> of wastewater to water sources and soils.

\*In Colombia, Decree 3930 of 2010 defines effluent as the final discharge, into a body of water, a sewerage, or the soil, of elements, substances, or compounds contained in a liquid medium.

## Management in 2017

- The WWTPs owned by the Grupo EPM's companies treated 39,351 Mm<sup>3</sup> of wastewater.
- As part of the Sanitation and Wastewater Management Plan (SWMP) of Valle de Aburrá, the group continued with the operation of the San Fernando WWTP and made progress in the construction of the Aguas Claras WWTP, with an investment of COP 53.41 billion in 2017. The complementary works required for the collection and transport of wastewater reached an investment of COP 230.9 billion.
- Within the development of the Sanitation and Wastewater Management Plan (SWMP) of Valle de Aburrá, the group continued with the operation of the San Fernando WWTP. Additionally, important milestones of the year include the completion of the works of the collector branches and the northern interceptor; the collection of discharges from the Centro Parrilla project, as part of the discharge elimination plan of the AMVA's target pollutant load agreement; and the progress made in the construction of the Aguas Claras WWTP. The investment in 2017 was COP 53,412 billion in the Aguas Claras plant and COP 230,095 billion in the other works of the SWMP, which will make it possible to collect and transport wastewater to this plant.
- Aguas Regionales made progress in the execution of the SWMPs of the municipalities where it provides the sewerage service. The company also contracted the design for the Apartadó, Turbo, and Carepa WWTPs and acquired all the lands for their construction, with the exception of the one in Mutatá. The value invested during the year for the execution of these plans was COP 22,472 billion.



The main results and programs implemented by the Grupo EPM's companies to manage wastewater discharges generated during their processes and activities are listed below:

- The total discharge from the production processes of the Grupo EPM's companies in 2017 was 51.6 Mm<sup>3</sup> representing a 59% decrease compared to the previous year.
- Effluents from users of the public sewerage service are treated in the WWTPs operated by Grupo EPM. The volume of treated wastewater discharged was 39.35 Mm<sup>3</sup>, 98% of this value corresponds to the El Retiro and San Fernando plants.
- The total flow discharged by EPM in 2017 was 46.3 Mm<sup>3</sup>, corresponding to 89.6% of the group's total discharges.
- Grupo EPM's effluents in 2017 decreased by 59% compared to the previous year, mainly due to a reduction in water discharges from the La Sierra thermal power plant, as a result of a lower energy generation, and the EPM's WWTP, representing a 8% decrease in its effluents.
- La Sierra power plant had a 96% decrease in effluents of water used for cooling purposes, caused by the decrease in power generation.
- 76.2% of the Grupo EPM's total discharges come from WWTPs; 8.28%, from DWTPs; and 6.5%, from the La Sierra thermal power station.

The initiatives and projects developed in 2017 related to wastewater management are listed below:

- **Sanitation and Wastewater Management Plan (SWMP) of Valle of Aburrá:** The San Fernando WWTP treated 38.57 Mm<sup>3</sup> of wastewater, preventing 7,802 t of BOD5 and 11,378 t of TSS from being discharged into the Aburrá river. Progress was made in the execution of the works described in the SWMP. In addition, there were important milestones during the year, such as the completion of the works of the collector branches and the northern interceptor; the collection of discharges from the Centro Parrilla project; and the deployment of projects for the collection of discharges and the replacement and modernization of the sewerage networks of the La Iguaná, La Gracia, Piedras Blancas, Rodas, and El Salado basins.
- **Sludge treatment systems of the EPM's DWTPs:** Progress was made in the construction of systems for treating sludge from the Caldas, Ayurá, and Manantiales purification plants. They will start operating during the first quarter of 2018.
- **El Retiro WWTP:** 684,856 m<sup>3</sup> of wastewater were treated, thus preventing 149 t of BOD5 and 270 t of TSS from being discharged into the Pantanillo river. A transaction agreement was signed with Ticsa for the design and construction of the El Retiro WWTP modernization project, including the implementation of tertiary treatment to guarantee the quality conditions of the Pantanillo basin, supplier of the Valle de Aburrá's and Rionegro's water systems. The national standard requires secondary treatment.
- **SWMP of the municipalities served by Aguas Regionales:** Progress was made in contracting the designs for the Apartadó, Turbo, and Carepa WWTPs. All the lands for their construction were acquired. The schedule for the elimination of projected discharges is being fulfilled.

- **Construction of the Wastewater Treatment System of the municipality of Malambo:** The inter-administrative agreement is being implemented for the conditional execution of phases of the project "Construction of the Wastewater Treatment System of the municipality of Malambo - Atlántico" signed between Fiduciaria Bogotá S.A., the administrator and representative of the freestanding trust fund, technical assistance trust - FINDETER, and the Malambo Temporary Joint Venture.
- **Leachate treatment plant of the La Pradera landfill, Emvarias:** The company started the procedures for the second phase of the leachate treatment plant. Management of resources that make it possible to acquire the technology and equipment necessary to treat another 4 l/s in secondary treatment, thus expanding the capacity of the plant to 8 l/s. It is expected to enter into operation by the end of 2018.
- **Wastewater Management in Adasa:** 2.75 Mm<sup>3</sup> of treated wastewater coming from the Tocopilla, Taltal, and Mejillones plants, and going to the Pacific Ocean, were discharged through marine outfall, in compliance with the Chilean regulations.
- **Provision of the wastewater treatment plant operation service:** Ticsa treated 10.03 Mm<sup>3</sup> of domestic wastewater in compliance with the Mexican regulations. About 10% of this volume is reused in industrial processes.
- **Online monitoring of wastewater:** The company continued its online monitoring of the quality of wastewater in the sewerage network of Valle de Aburrá.

| Effluents associated with production processes (In thousands of m <sup>3</sup> /year) |                                 |                                    |                |                |               |        |     |
|---------------------------------------------------------------------------------------|---------------------------------|------------------------------------|----------------|----------------|---------------|--------|-----|
| Grupo EPM                                                                             |                                 |                                    |                |                |               |        |     |
| Company                                                                               | Type of treatment               | Destination                        | 2015           | 2016           | 2017          |        |     |
| EPM                                                                                   | DWTP                            | None                               | Sewerage       | 2,591          | 3,886         | 4,276  |     |
|                                                                                       |                                 | None                               | Watercourse    | 32             | N.A.          | N.A.   |     |
|                                                                                       |                                 | Primary                            | Sewerage       | 26             | 64            | 98     |     |
|                                                                                       |                                 | Aguas Regionales - Urabá region    | None           | Surface water  | 575           | 461    | 521 |
|                                                                                       |                                 | Aguas Regionales - Western region* | None           | Sewerage       | 14            | 195    | 546 |
|                                                                                       |                                 | Aguas de Oriente                   | None           | Surface water  | 43            | 106    | 89  |
|                                                                                       |                                 | Aguas de Malambo*                  | None           | Sewerage       | 227           | 452    | 415 |
| EPM                                                                                   | WWTP                            | Secondary                          | Watercourse    | 43,208         | 41,472        | 38,575 |     |
| Aguas Regionales - Urabá region                                                       |                                 | None                               | Sewerage       | 0              | N.R.          | N.R.   |     |
| Aguas Regionales - Western region                                                     |                                 | None                               | Sewerage       | N.R.           | N.R.          | N.A.   |     |
|                                                                                       |                                 | Secondary                          | Watercourse    | 202            | 628           | 776    |     |
| Emvarias                                                                              | None                            | Sewerage                           | 40             | N.R.           | N.R.          |        |     |
|                                                                                       | None                            | Surface water                      | 175            | N.R.           | 249           |        |     |
| Adasa                                                                                 | Primary                         | Sea                                | 0              | 0              | 2,752         |        |     |
| EPM La Sierra thermal power station                                                   | Secondary (industrial residual) | Watercourse                        | 10             | 13             | 12            |        |     |
|                                                                                       | None (cooling)                  | Watercourse                        | 160,877        | 78,209         | 3,352         |        |     |
| <b>Total</b>                                                                          |                                 |                                    | <b>208,020</b> | <b>125,487</b> | <b>51,662</b> |        |     |

\* The values for Aguas de Occidente and Aguas de Malambo were corrected according to the values reported in 2016, since an error was detected in the previous report.

- The list of DWTPs includes ten EPM's plants, ten Aguas Regionales' plants, one Aguas de Oriente's plant, and one Aguas de Malambo's plant.

- The list of WWTPs includes two EPM's plants, two Aguas Regionales' plants, and two Aguas Regionales' WWTPs.
- Emvarias reports the La Pradera landfill.
- The amount of water discharged by the DWTPs depends on the quality of the water entering the plant, given that it determines the frequency of infrastructure (filters and settlers) washes.
- The decrease in the total volume of effluents in 2017, with respect to 2016, was 59%, mainly due to a reduced generation of energy in the La Sierra thermal station and, therefore, a lower use of water for cooling purposes. Another cause is the decrease in the discharges from the EPM's WWTPs.
- Ticsa's effluents are not included because they do not come from Grupo EPM's WWTPs, but from the companies to which Ticsa provided its services.

| <b>Domestic effluent going to the sewerage system<br/>(In thousands of m<sup>3</sup>/year - Grupo EPM)</b> |               |               |               |
|------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|
| <b>Business/Facilities</b>                                                                                 | <b>2015</b>   | <b>2016</b>   | <b>2017</b>   |
| Transmission and distribution                                                                              | 55.66         | 59.85         | 57.55         |
| Water supply                                                                                               | 18.11         | 13.88         | 14.90         |
| Solid waste management                                                                                     | 39.64         | N.R.          | N.R.          |
| Administrative and commercial facilities EPM                                                               | 159.50        | 128.78        | 75.94         |
| <b>Total</b>                                                                                               | <b>272.91</b> | <b>202.50</b> | <b>148.39</b> |

- The domestic effluent includes administrative offices, operating facilities, tanks, and pumpings going to the sewerage system.
- The 26.7% decrease in discharges into the sewerage system is the result of the implementation of diverse programs and initiatives related to the efficient use of water in the group's facilities.
- In the EPM building, the reduction is due to the change of the sprinkler irrigation system by a drip irrigation system in slopes and perimeter green areas of the headquarters, and also to the reduction of water consumption and, therefore, of discharges from the perimeter channel for the Parques del Río works in the surrounding area.
- Domestic effluents of facilities without connection to sewerage systems are treated in the group's WWTP.

The most representative figures:

- Power generation: 84,838 m<sup>3</sup> of wastewater were given primary and secondary treatment. It includes facilities of EPM's and CHEC's power plants.
- T&D: 35,916 m<sup>3</sup> of wastewater were given secondary treatments. It includes facilities of EPM, CHEC, CENS, and Eegsa.
- Ituango Hydroelectric Project: 99,924 m<sup>3</sup> of wastewater were given tertiary treatment.

## GRI Standards and EPM indicators

**306-1** Water discharge by quality and destination.



**Diversification  
of renewable  
energies**



**Grupo·epm®**





## Diversification of renewable energies

Renewable energies come from inexhaustible natural resources. Solar, wind, hydraulic, and tidal energies, as well as the geothermal biomass, belong to this group of energies. Considered as clean sources, they are alternative solutions to traditional energy production and will be the basis for economic and social development.

The use of renewable energies has increased due to the depletion of natural resources, and their incorporation within different production processes is currently encouraged. Ensuring full and timely energy supply, maintaining productivity, protecting the environment, ensuring the efficient use of energy, and preserving renewable natural resources is of paramount importance for both Grupo EPM and its stakeholders.

In Colombia, the signing of Act 1715 of 2014 and the implementation of some regulatory decrees have further encouraged the use of this type of energy sources. Thanks to this, many companies have been motivated to look for mechanisms to develop and incorporate projects involving renewable energy sources.

### Stakeholders' vision

Besides the measures taken by Grupo EPM itself, it has been important to form alliances with other actors that promote the development of these energy sources, carry out pilot projects to acquire new knowledge, implement new technology related to renewable energies, and resort to technical and scientific cooperation resources that make it viable to use these energies in the territories where Grupo EPM is present.

As long as the organization manages to execute successful projects, and depending on the market conditions, the group will be able to offer new lines of business segmented to the different stakeholder groups, a fundamental matter for the sustainable development of the territories.

### Relevance

For Grupo EPM it is important to diversify its energy basket to ensure the full and timely energy supply—so that it remains competitive, guarantee the protection of the environment, reduce greenhouse gas emissions, and generate positive social impacts on the communities in its areas of influence, including the non-interconnected areas.

Among the new energy sources that EPM has been implementing are wind energy, photovoltaic solar energy, geothermal energy, biomass, and second-generation biofuels.

## Risk in sustainability associated with this topic

- RS10: Insufficient development of renewable, efficient, and clean energies different from hydraulic power.

For more detailed information on the analysis of risks associated with material topics, see Material aspects and boundaries (General information).

## Main achievements

| Goals                                                                                                                                                                                                                                                                                                                              | Achievements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Accomplishment |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <p>Develop a pilot project in rural schools of Antioquia, as part of the nanostructured solar cells project.</p>                                                                                                                                                                                                                   | <p>In partnership with the University of Antioquia and two companies of Medellín (Sumicol and Andercol), improvements were made in the efficiency of the first experimental photovoltaic solar module, which is being tested in a pilot project in Carepa. In addition, these panels were installed in the Altos de Oriente rural school, in the municipality of Bello.</p> <p>The pilot project continued comparing commercial cells with the cells manufactured in the laboratory. The search for calls continues, aiming at obtaining financial resources for the following phases.</p>        | Total          |
| <p>Develop the line of business for the sale of electrical energy produced by a photovoltaic solar system: in 2017, demonstration projects were developed with customers, the concept was tested from a commercial, financial, and technical point of view, and the results that will define the business model were assessed.</p> | <p>A new line of business was structured for customers with high electricity consumption, through the sale of photovoltaic solar energy that is located in the customer's facilities and is owned by EPM, which supplies part of the demand. Progress was made in the negotiation with potential customers that account for approximately 3 MW of solar energy. The registration of projects before UPME was started in order to obtain UPME and ANLA certifications.</p> <p>In 2017, progress was made in the negotiation to provide this service to El Tesoro commercial park for 15 years.</p> | Total          |



| Goals                                                                                                                                                                                                                                                             | Achievements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Accomplishment |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <p>Solar energy:<br/>Start with the studies for the environmental licensing of the EPM solar park.<br/>Train and transfer knowledge to EPM on large-scale solar technology.<br/>Conduct the preliminary technical and financial assessment of the solar park.</p> | <p>The collaboration agreement with the strategic ally was signed; the property negotiation process is underway; and the conceptual engineering, the connection study, and the preliminary financial assessments are being developed. EPM's employees received the first training session.</p>                                                                                                                                                                                                                | <p>Total</p>   |
| <p>In partnership with Comfama, implement a pilot project for the installation of solar kits in homes.</p>                                                                                                                                                        | <p>The process of installing the eight kits was started in Rionegro, Copacabana, and Urabá. The teamwork between the Vice Presidency of Transmission and Distribution, the Commercial Vice Presidency, and Comfama has been paramount.</p>                                                                                                                                                                                                                                                                    | <p>Total</p>   |
| <p>Make progress in the Phase I of the Micro Red initiative.</p>                                                                                                                                                                                                  | <p>A contract was executed with Universidad Pontificia Bolivariana, which conceptualized the architecture, subsystems, and implementation and management costs for five solutions based on the Micro Red concept. EPM chose the location of the La Pradera landfill as the place more suitable for the development of the phase II of this initiative.</p>                                                                                                                                                    | <p>Total</p>   |
| <p>Develop the renewable energies integration project.</p>                                                                                                                                                                                                        | <p>The project aims to delve into the knowledge of the different concepts, technology solutions, applications, costs, and business models related to the integration of renewable energies. In 2017, the company contracted the development of an engineering and cost model for the integration of renewable energies through an intelligent micro-network and the conceptual and basic design for a pilot project in the La Pradera landfill, using a portion of the biogas available in this location.</p> | <p>Total</p>   |

| Goals                                                                                                                   | Achievements                                                                                                                                                                                                                                                                                                                                                                                     | Accomplishment |
|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Develop large-scale wind farms                                                                                          | The company studied the technical and economic feasibility of wind farms with a total capacity of 800 MW. A guarantee was processed before XM and UPME for a 200 MW wind farm in La Guajira, ensuring connection and operation by 2023. Six potential areas with an approximate capacity of 600 MW were identified. Environmental impact assessment (EIA) for a 200 MW wind farm was contracted. | Total          |
| Develop cost-effective processes to obtain renewable fuels (2G ethanol, green diesel, green gasoline, and biojet fuel). | An analysis report was prepared on the incorporation of this technology into the market. A first approach was made for a possible commercial strategic alliance for financing the following phases of the project.                                                                                                                                                                               | Total          |
| Geothermal energy:<br>Complete the environmental impact assessment (EIA) of deep well drilling.                         | The environmental impact assessment was completed. A technical, scientific, financial, and environmental proposal document was prepared in order to participate in the first call for proposals of the Geothermal Development Facility for Latin America GDF-LAC, by the German bank KfW. It received the approval of this fund for a "grant agreement".                                         | Total          |

## Challenges

| Challenge                                                                                                         | Year in which it is achieved | Scope and coverage   |                   |                                     | Achievement indicator                            |
|-------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|-------------------|-------------------------------------|--------------------------------------------------|
|                                                                                                                   |                              | Territory            | Business          | Company                             |                                                  |
| Develop a line of business in EPM for the sale of electrical energy produced through a photovoltaic solar system. | 2018                         | Colombia             | Electrical energy | Empresas Públicas de Medellín - EPM | Milestones in the achievement of each challenge. |
| Develop a (large-scale) solar park in Colombia, in partnership with a strategic ally. (VP of Power Generation).   | 2020                         | Colombia             | Electrical energy | Empresas Públicas de Medellín - EPM | Milestones in the achievement of each challenge. |
| Pilot project for the installation of solar kits in homes - agreement with Comfama.                               | 2018                         | Colombia - Antioquia | Electrical energy | Empresas Públicas de Medellín - EPM | Milestones in the achievement of each challenge. |
| Develop large-scale wind farms.                                                                                   | 2020                         | Colombia             | Electrical energy | Empresas Públicas de Medellín - EPM | Milestones in the achievement of each challenge. |
| Develop a pilot project with floating solar panels in an EPM's reservoir.                                         | 2019                         | Colombia - Antioquia | Electrical energy | Empresas Públicas de Medellín - EPM | Milestones in the achievement of each challenge. |
| Micro Red - Phase II.                                                                                             | 2018                         | Colombia - Antioquia | Electrical energy | Empresas Públicas de Medellín - EPM | Milestones in the achievement of each challenge. |
| Renewable energy integration project.                                                                             | 2020                         | Colombia             | Electrical energy | Empresas Públicas de Medellín - EPM | Milestones in the achievement of each challenge. |

| Challenge                                                                                    | Year in which it is achieved | Scope and coverage |                   |                                         | Achievement indicator                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------|------------------------------|--------------------|-------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                              |                              | Territory          | Business          | Company                                 |                                                                                                                                                                                                                                                                                                              |
| Geothermal energy: complete the environmental impact assessment (EIA) of deep well drilling. | 2020                         | Colombia           | Electrical energy | Central Hidroeléctrica de Caldas - CHEC | Address all the requirements related to the EIA-EMP made by the environmental authority and support its evaluation. (It depends on the times and requests by the environmental authority). Submit an economic model for the case: a geothermal plant of 50 - 65 MW of installed capacity with its variables. |

## GRI Standards and EPM indicators

- 103-1** Explanation of the material topic and its boundary.
- 103-2** The management approach and its components.
- 103-3** Evaluation of the management approach.
- EPM-11** Initiatives of diversification of renewable energies.

## Sustainable Development Goals



# Biomass

Biomass is biological organic matter that can be used as an energy source. Its renewable nature is explained by the fact that its energy content comes ultimately from the solar energy fixed by living organisms on chemical compounds during the photosynthesis process, in which  $\text{CO}_2$ , water, and minerals are transformed into oxygen and organic compounds of high-energy content, such as sucrose, starch, and cellulose. This energy can be transformed by breaking the bonds of the organic compounds.

The organic matter from wastewater and the sludge resulting from its treatment are also considered biomass, as well as the organic fraction of the municipal solid waste (MSW).

The organization is aware of the potential of the resources available in the country and, therefore, it has been conducting studies to determine the business potential of the forest biomass or to produce biofuels using raw materials that do not affect food security.

## Management in 2017

EPM continues working on the use of biomass to produce second-generation biofuels, such as alcohol fuels and hydrocarbons, obtained from agro-industrial waste (palm rachis, sweet sorghum, sugarcane bagasse) and grass. The group obtained high-quality fuel through hydrothermal liquefaction; a result that has not been reported in patents or scientific literature. In terms of economic pre-feasibility, all the case studies evaluated showed positive indicators for investment.

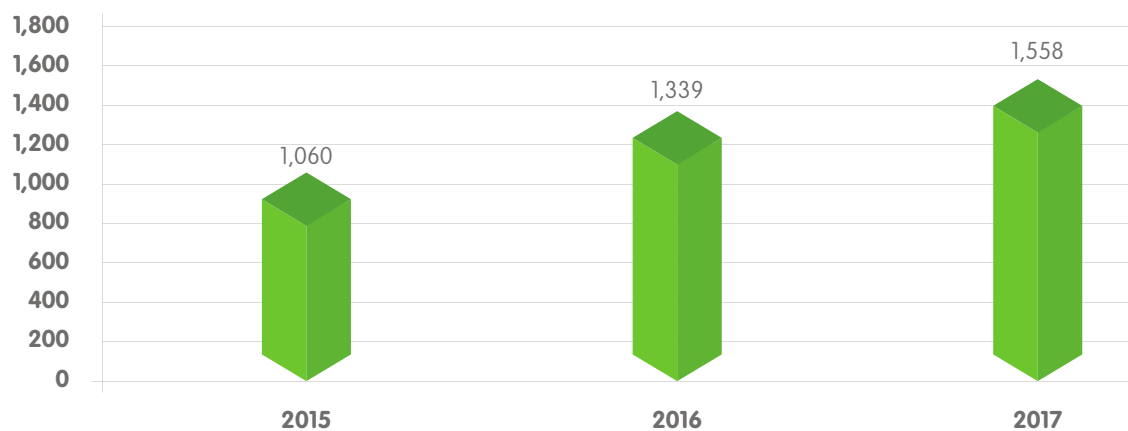
With the execution of two research projects in partnership with the University of Antioquia, processes to obtain 2G ethanol, green diesel, green gasoline, and biojet fuel are being developed. The process for obtaining second-generation ethanol was optimized at a laboratory scale with favorable economic pre-feasibility results; the tests at the pilot plant level are being carried out.

Additionally, the group prepared a report on the analysis of connection to the technology market to produce liquid biohydrocarbons from second-generation biomass and took a first step towards a possible commercial strategic alliance for financing the following phases of the project. The organization continues in the search of possible allies to negotiate the results obtained with this technology.

| Investment in biomass projects (million COP)                                                         |      |      |       |
|------------------------------------------------------------------------------------------------------|------|------|-------|
| Concept / Indicator                                                                                  | 2015 | 2016 | 2017  |
| Production of bioethanol and biobutanol from lignocellulosic biomass - phase II.                     | 760  | 666  | 349   |
| Production of liquid biohydrocarbons through hydrotreating and hydrothermal liquefaction of biomass. | 285  | -    | 142   |
| Development of a pilot plant for the production of lignocellulosic ethanol.                          | 15   | 673  | 1,067 |

Source: Executive Vice Presidency of Strategy and Growth - Development and Innovation Management

### Investment in projects for the production of liquid biohydrocarbons, bioethanol, and biobutanol. Pilot plant (million COP)



Source: Executive Vice Presidency of Strategy and Growth - Development and Innovation Management

The graph shows the investments made in projects to obtain biofuels. During 2017, significant investments were made for the installation and start-up of the bioalcohol pilot plant.

## GRI Standards and EPM indicators

**EPM-11** Initiatives of diversification of renewable energies.

## Wind energy

Wind energy is the most mature and efficient renewable energy, and that is why it has begun to gain strength. Grupo EPM is betting on wind energy as a renewable, nonconventional, and effective alternative to mitigate global warming.

Currently, the group has the Jepírachi wind farm, which uses wind to generate electric energy. It is located in La Guajira, northern Colombia, its capacity is 18 megawatts, and is part of a research program led by EPM for the future development of this technology in the country. Thanks to the knowledge acquired, now the group also has Los Cururos, a 110-megawatt capacity wind farm located in the region of Coquimbo, northern Chile.

### Management in 2017

The EPM's Vice Presidency of Power Generation is interested in developing projects in Colombia aimed at using wind energy; therefore, in 2017, various possibilities for building large-scale wind farms in the country were analyzed.

In 2017, seeking to develop large-scale wind farms, EPM studied the technical and economic feasibility of wind farms with a total capacity of 800 MW. Guarantee was processed before XM and UPME for a 200 MW wind farm in La Guajira, ensuring connection and operation by 2023. Moreover, six potential areas with an approximate capacity of 600 MW were identified and the environmental impact assessment (EIA) of a 200 MW wind farm was contracted.

The power generation business of Grupo EPM is conducting recognition, pre-feasibility, and feasibility studies for the development of wind farm projects in La Guajira and other regions of Colombia. As part of the portfolio of projects for the growth of the generation business in the short, medium, and long term, there are currently twelve projects in different stages, six of them in La Guajira, with an installed capacity of approximately 1,090 MW, and other six in different regions of Colombia, with an installed capacity of approximately 300 MW. The materialization of these projects will depend on their financial close and the market conditions. At least two of them are expected to be ready between 2020-2021 (with an approximate capacity of 40 MW), other three between 2022-2025 (with an approximate capacity of 320 MW), and other three after 2025 (with an approximate capacity of 500 MW).

| Investment in wind projects (million COP)       |      |      |
|-------------------------------------------------|------|------|
| Concept / Indicator                             | 2016 | 2017 |
| Development of large-scale wind farms - Studies | 873  | 834  |

Source: Vice Presidency of Power Generation

## GRI Standards and EPM indicators

**EPM-11** Initiatives of diversification of renewable energies.



## Geothermal energy

Geothermal energy is produced thanks to the natural heat inside the Earth that comes out in the forms of hot springs, steam emissions, and mud volcanos. It is used to generate electrical energy when water vapor is carried by pressure to the surface to a geothermal power station.

Besides coming from a renewable source, this energy does not require large extensions of land, has a low environmental impact, provides firm energy, is environmentally friendly, and poses a low risk for the neighboring communities since its operation is very safe and clean.

EPM, in cooperation with CHEC, is making progress in the studies and licenses to build a geothermal energy plant in Colombia, which would be located in the central-western region.

### Management in 2017

EPM and its affiliated CHEC conducted additional studies aimed at proving the existence of the geothermal resource through drillings, in order to prepare the project's feasibility report. In addition, the environmental impact assessment for the drilling of five exploratory wells is being modified.

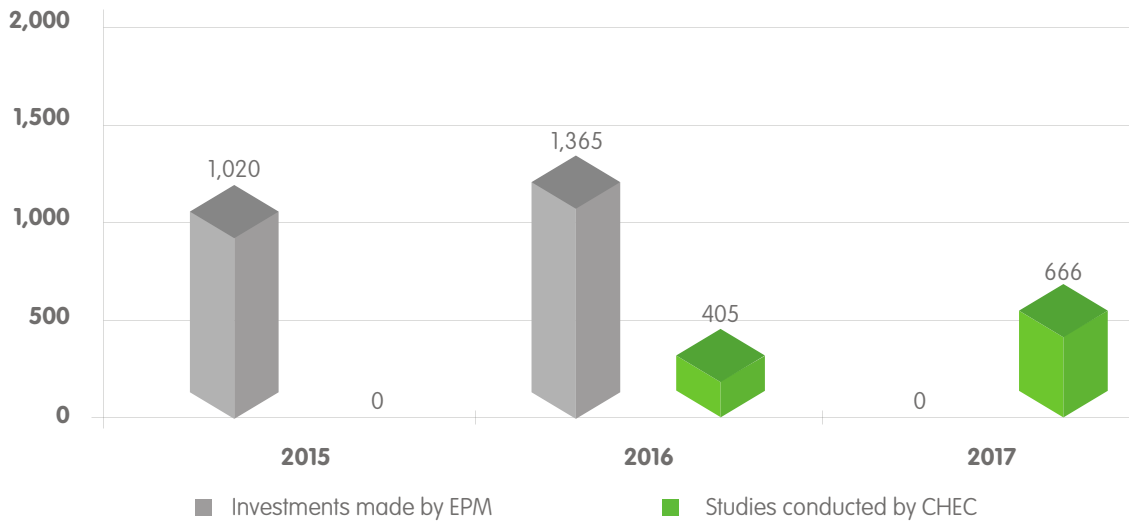
The environmental impact assessment was completed and submitted to the environmental authority.

A technical, scientific, financial, and environmental proposal document was prepared in order to participate in the first call for proposals of the Geothermal Development Facility for Latin America GDF-LAC, by the German bank KfW. It received the approval of this fund for a "grant agreement" for a value of up to 5.8 million euros, set aside as a contingent loan for the drilling stage, with a view to verifying the resource.

The different activities of the project were integrated through the EPM – CHEC work team for the evaluation of documents and the preparation of tools for decision making.

During 2018, efforts will be made to keep the stakeholders' communication and service plan, manage the overlap with Isagen, update the risk management plan, and make progress in the creation of a financial business model for a geothermal plant.

### Investment in studies required for the project (million COP)



Source: Vice Presidency of Power Generation

The graph shows the investments made in 2015 and 2016 by the EPM parent company (gray bars), including environmental impact assessments carried out in 2017, and the investments made by the affiliated CHEC (green bars).

## GRI Standards and EPM indicators

**EPM-11** Initiatives of diversification of renewable energies.

## Solar energy

For Grupo EPM, photovoltaic solar energy is a matter of great interest as it is a renewable and competitive source of energy.

As an important agent of the Colombian electricity sector, EPM is aware that technological development has been reducing generation costs, mainly in solar technology, which makes it one of the main bets for the future supply of energy.

For this reason, Grupo EPM has been working on initiatives and projects that make it possible to implement this technology as an electrification solution in non-interconnected and difficult-to-reach areas and as a large-scale solution for customers with high consumptions of energy whose facilities are located in areas where it is possible to install photovoltaic systems.

### Management in 2017

In 2017, EPM made progress in the studies for the environmental licensing of a solar park in Colombia, and conducted training and knowledge transfer on large-scale solar technology.

Additionally, the company structured a new line of business for customers with high electricity consumption with the sale of photovoltaic solar energy that is located in the customer's facilities.

Finally, it continued studying the development of solar cells with new materials, in partnership with Andercol, Sumicol, and the University of Antioquia.

EPM has been working on the design of solar solutions that are attractive to customers and that allow the company to ensure competitiveness and sustainability of the power generation, transmission, and distribution businesses.

For the development of the solar park in Colombia, EPM signed the collaboration agreement with the strategic ally. The property is under negotiation. EPM's employees received the first training session. The company expects to register the project before the UPME in 2018, carry out basic engineering, geotechnical, cartographic, hydrological, and connection studies, and start the on-site measurements.

As for the new line of business for the sale of electric energy produced by a photovoltaic solar system to customers with high energy consumption, progress was made in the negotiation with potential customers that account for approximately 3 MW of solar energy. The process for obtaining tax benefits is being started. In 2017, progress was made in the negotiation to provide this service to El Tesoro commercial park for 15 years. EPM currently works with 45 corporate customers in Colombia to provide them with this energy solution from 2018.

On the other hand, a pilot project was structured in coordination with Comfama, consisting in the installation of solar kits in homes. The process of installing the eight kits was started in Rionegro, Copacabana, and Urabá. The company expects to identify relevant signals from each customer, in order to analyze the impact on consumption habits, payment culture, losses, and other factors that can contribute to the construction of innovative offers with photovoltaic solar energy for low-income households.

Lastly, regarding the project for the development of solar cells with new materials, improvements were made in the efficiency of the first experimental photovoltaic solar module, which is being tested in a pilot project in Carepa. In addition, these panels were installed in the Altos de Oriente school, in the rural area of the municipality of Bello.

## GRI Standards and EPM indicators

**EPM-11** Initiatives of diversification of renewable energies.

## Biogas

Biogas is a gas that can be obtained from the breakdown of organic matter or waste in the absence of oxygen. Biogas is commonly generated in wastewater treatment plants (WWTP) and landfills. Its amount depends on the type of material and the conditions of the process. The concentration of the gases that constitute it can vary depending on the origin of the waste.

Biogas is an energy source of interest for Grupo EPM. In this regard, preliminary analyses have been carried out to define the best use of the biogas produced by the waste disposed in the La Pradera landfill, located in the northern region of the department of Antioquia. Power generation, heat generation, or its purification and injection into the natural gas network as a new line of business are some of the potential uses for this energy product.

### Management in 2017

Emvarias resumed the use of biogas in the La Pradera landfill, with an average flow of 1,100 m<sup>3</sup>/h, used during a period of eight hours a day, for a burning of 407.41 m<sup>3</sup> of biogas, thus reducing greenhouse gas emissions.

In 2017, biogas production at the San Fernando wastewater treatment plant (WWTP) was affected in four moments by preventive and corrective actions, as well as by the plant's modernization project. However, the production of biogas reached 5,269,181 m<sup>3</sup> and the energy generated amounted to 6,849,086 kWh.

Regarding the use of biogas from the La Pradera landfill, operated by Emvarias, it is important to note that the contract with the company in charge of the use and commercialization of biogas through carbon credits ended in 2015. Then, in 2016, a new contract was signed with a different company, which recovered the existing chimney connections in the Carrilera and Música basins to light again the HOFFGAS 2000 chimney.

In 2017, the connections were made and the use of biogas was restarted, with an average flow of 1,100 m<sup>3</sup>/h used during a period of eight hours a day, for a burning of 407.41 m<sup>3</sup> of biogas, thus reducing the emissions of greenhouse gases and using a total of 2,405.3 tCO<sub>2</sub>e.

| Biogas production in 2017<br>San Fernando wastewater treatment plant |                                     |                     |
|----------------------------------------------------------------------|-------------------------------------|---------------------|
| Month                                                                | Biogas production (m <sup>3</sup> ) | Power generated kWh |
| January                                                              | 427,038                             | 711,756             |
| February                                                             | 411,646                             | 561,930             |
| March                                                                | 473,335                             | 447,388             |
| April                                                                | 452,134                             | 525,371             |
| May                                                                  | 406,799                             | 804,041             |
| June                                                                 | 439,440                             | 606,981             |
| July                                                                 | 246,631                             | 264,156             |
| August                                                               | 490,264                             | 490,121             |
| September                                                            | 425,345                             | 515,672             |
| October                                                              | 482,239                             | 532,400             |
| November                                                             | 493,915                             | 690,170             |
| December                                                             | 520,395                             | 699,100             |
| <b>Total</b>                                                         | <b>5,269,181</b>                    | <b>6,849,086</b>    |

Source: Vice Presidency of Water and Sanitation

## GRI Standards and EPM indicators

**EPM-11** Initiatives of diversification of renewable energies.



**Climate  
strategy**



**Grupo·epm<sup>®</sup>**





## Climate strategy

EPM has a climate change strategy that consists of a set of objectives, goals, statements, guidelines, and action and monitoring plans carried out to achieve a comprehensive management of matters related to climate change and variability.

Vulnerability, adaptation, and mitigation are its three strategic lines, which, in turn, have the following support components: financing, technology, innovation, and communication.

The higher frequency and intensity of natural disasters, as well as the climate change, will pose new worldwide challenges associated with population growth, urbanization increase, food shortage and demand, increase in the costs of fuels and energy, health and well-being of the population, among others.

### Stakeholders' vision

Ensure means of livelihood, adaptation and sustainable measures to overcome the difficulties of climate vulnerability, and climate change are the great challenges for the government and public institutions. In this sense, it is important for stakeholders to know what is the company's strategy; how it is getting prepared to address the consequences of climate change in the regions where it operates; and what guidelines it has considered to act in case of natural disasters, high temperatures, rainfall shortage or abundant rains, and flooding, as well as the consequences that these situations can generate in communities and regions.

### Relevance

Aware of its interdependence with the environment, Grupo EPM recognizes the importance of articulating its management with a climate-compatible development, considering its environmental policy and plans, as well as its main purpose: sustainability.

Therefore, it is important to know how climate variability and change are affecting the ecosystems, the territories where the company operates, and the availability of the natural resources it uses, in order to design strategies to provide its services, restructure its products, make the most of its competitive advantages, and define risk management schemes that allow the company to adapt itself and its environment for the construction of more solid economies.

### Risk in sustainability associated with this topic

- Impact of natural events associated with climate phenomena on the environment, the operation, and the services provided by Grupo EPM.



For more detailed information on the analysis of risks associated with material topics, see Material aspects and boundaries (General information).

## Main achievements

| Goals                                                                                                                              | Achievements                                                                                                                                                                                                                                                                         | Accomplishment |
|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Define the climate strategy of the group and the action plan until 2030.                                                           | The group's strategy 2018 - 2030 was defined, as well as its guidelines and management axes. The final version of the action plan is under discussion and in process of validation by the senior management.                                                                         | Partial        |
| Define the carbon offset strategies of Grupo EPM, taking 2016 as the baseline year, to meet the Neutral Carbon commitment by 2025. | The final document of defined scenarios for each project is ready. The results will be integrated into the definition of the strategy's action plan.                                                                                                                                 | Total          |
| Inspect and certify the reduction of emissions of the reduction projects registered in different standards.                        | The certification of the emissions achieved in 2015 and 2016 by the La Vuelta and La Herradura small power stations was obtained, and progress was made in the verification process of the emissions achieved by the operation of the Los Cururos wind project during 2014 and 2015. | Total          |
| Develop the first phase of preparation of the adaptation plan for Grupo EPM.                                                       | The execution of all the deliverables defined for this phase was achieved (Identification of risks and controls).                                                                                                                                                                    | Total          |
| Start the phase II of the study conducted by the National University of Colombia on Applied Climate Modeling.                      | The execution of the contract started in September and the first three deliverables defined for the period were obtained.                                                                                                                                                            | Total          |

## Challenges

| Challenge                                         | Year in which it is achieved | Scope and coverage  |                    |                   | Achievement indicator | Progress made in its management in 2017                                                    |
|---------------------------------------------------|------------------------------|---------------------|--------------------|-------------------|-----------------------|--------------------------------------------------------------------------------------------|
|                                                   |                              | Territory           | Business           | Company           |                       |                                                                                            |
| Achieve approval of the group's climate strategy. | 2018                         | All the territories | All the businesses | All the companies | Strategy approved     | The strategy, its guidelines, goals, and proposed action plan were defined and structured. |

| Challenge                                                                                                                          | Year in which it is achieved | Scope and coverage  |                    |                   | Achievement indicator | Progress made in its management in 2017                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------|--------------------|-------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                    |                              | Territory           | Business           | Company           |                       |                                                                                                                                                                                                                                                                                                                                                              |
| Perform the vulnerability analysis, design the adaptation plan, and take measures for its implementation.                          | 2018                         | All the territories | All the businesses | All the companies | Plan designed         | Identification of the risks and controls associated with the climate topic in the group. Identification of internal and external initiatives and plans, vulnerability analysis of regions and countries of interest to the group, definition of the methodology to find the analysis of vulnerability and the adaptive capacity of companies and businesses. |
| Estimate the Grupo EPM's GHG inventory, scopes I and II, and standardize the calculation methodology for companies and businesses. | 2018                         | All the territories | All the businesses | All the companies | GHG inventory 2017    | Calculation of the 2016 inventory, methodological adjustments, knowledge transfer with international affiliates, and procedures with external entities for audit and improvement.                                                                                                                                                                            |

| Challenge                                                                                                                                                                                                                                                                                                                                                     | Year in which it is achieved | Scope and coverage   |                   |                                     | Achievement indicator                                                                     | Progress made in its management in 2017                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|-------------------|-------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                               |                              | Territory            | Business          | Company                             |                                                                                           |                                                                                                                                                                                             |
| Development of the phase II of the study by the National University with the water and energy businesses. Climate modeling in areas of interest to the water and energy businesses.                                                                                                                                                                           | 2018                         | Colombia – Antioquia | Electrical energy | Empresas Públicas de Medellín - EPM | Specific modeling applied to areas of interest to the water and energy businesses.        | Contracting of the study. Methodological development, acquisition of servers and software, workshops and technical coordination of the work between the EPM study group and the university. |
| Verify the reduction of greenhouse gas emissions in the La Vuelta and La Herradura small power stations before the clean development mechanism. Renew the credit period of Jepírachi and small power stations, prepare the information for the 2019 verification (REDD+, Jepírachi, LV and LH, Bello WWTP, Ituango), and obtain the certification of Cururos. | 2018                         | Colombia – Antioquia | Electrical energy | Empresas Públicas de Medellín - EPM | Verification of the La Vuelta and La Herradura small power stations. Renewal of Jepírachi | Review, analysis, adjustment, updating, and preparation of all the necessary documentation for each project.                                                                                |

## GRI Standards and EPM indicators

- 103-1** Explanation of the material topic and its boundary.
- 103-2** The management approach and its components.
- 103-3** Evaluation of the management approach.
- 201-2** Financial implications and other risks and opportunities due to climate change.
- 305-1** Direct (Scope 1) GHG emissions.

- 305-2 Energy indirect (Scope 2) GHG emissions.
- 305-3 Other indirect (Scope 3) GHG emissions.
- 305-4 GHG emissions intensity.
- 305-5 Reduction of GHG emissions.
- 305-6 Emissions of ozone-depleting substances (ODS).
- 305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions.

## Sustainable Development Goals



# Climate strategy management

Climate change, along with the environmental issues, poses important challenges for the human race and the global economy. It is considered as part of the main factors that define the trend towards the sustainability and it becomes a key field of study and comprehensive analysis in environmental, social, political, economic, technological, regulatory, and cultural matters for defining business positions.

Fixing strategies based on the aforementioned perspectives enables the companies to face the challenge posed by their growth and development, considering the climate impact.

## Management in 2017

Grupo EPM designed its Climate Strategy to 2030, which includes guidelines such as GHG emissions management, climate risk management, and water and biodiversity management; as well as the progress made in the definition of goals and measures related to its implementation and the fulfillment of the group's commitment: "Carbon neutral operation to 2025."


Progress was made in the analysis of scenarios, risks, and opportunities of the emission reduction projects currently implemented by the group. In addition, cost-benefit analysis was carried out to facilitate decision-making regarding the registration standards and the destination or use of reduced emission certificates.

The vulnerability analysis was developed, as well as some initiatives for the design of the Adaptation Plan. Grupo EPM also started the study for the climate modeling to 2100 of the main areas of interest to the water and energy businesses in the department of Antioquia.

Reduced emission certificates corresponding to 72,908 tCO<sub>2</sub>e were obtained for the operation in 2016 of the La Vuelta and La Herradura small power stations, and progress was made in the verification of carbon neutrality by EDEQ.

During 2017, Grupo EPM continued to take measures associated with its climate strategy and managed the operation of the projects registered before different international emission reduction standards, in order to guarantee the compliance with the commitments arising from the PDP (project development plans) and identify possible improvements, adjustments, and financial or regulatory opportunities.

EPM's emission indicator remained below the emission factor of the Colombia's National Interconnected System, going from 0.0498 tCO<sub>2</sub>e/MWh in 2016 to 0.0063 tCO<sub>2</sub>e/MWh in 2017, mainly due to the minimal use of fuel fossils, such as diesel, in the La Sierra thermal power station during this period.




Through the inter-institutional management, the group took part in regulatory, regional, and sectoral spaces of interest, such as the electricity sector of Colombia, the regional node of climate change of Antioquia, and the climate change committee of Medellín, in order to contribute to the definition of the respective climate action plans. The different specific mechanisms and the way the group can contribute to the fulfillment of national, regional, sectoral, or union commitments related to the goals of the COP21 are currently being analyzed.

**The new Grupo EPM's climate strategy 2018 - 2030** aims to address the most relevant topics of the businesses and companies related to this variable, based mainly on the impact that it represents for their operation, development, growth, and sustainability in the medium and long term.

Natural disasters are expected to become increasingly frequent and intense, which poses new challenges associated with economic, population, and urban growth; shortage and demand of food; increase in fuel and energy costs; and consequences on people's health and well-being. This situation undoubtedly transcends all purely environmental interest to become a key management factor in the business future.

It is indispensable to move towards low-carbon economies, making rational use of natural resources and taking advantage of new technologies for the development of energy efficiency, non-conventional renewable energy, diverse modes of transport, sustainable practices of use and consumption, incentives, policies, and regulations to achieve a global carbon neutral scenario by the second half of the century and a carbon neutral operation in Grupo EPM by 2025.



Status of the Grupo EPM's climate strategy 2018 - 2030  
 The final validation will be given during 2018

## Grupo EPM's climate strategy 2018 – 2030

### Resilient and carbon-efficient businesses

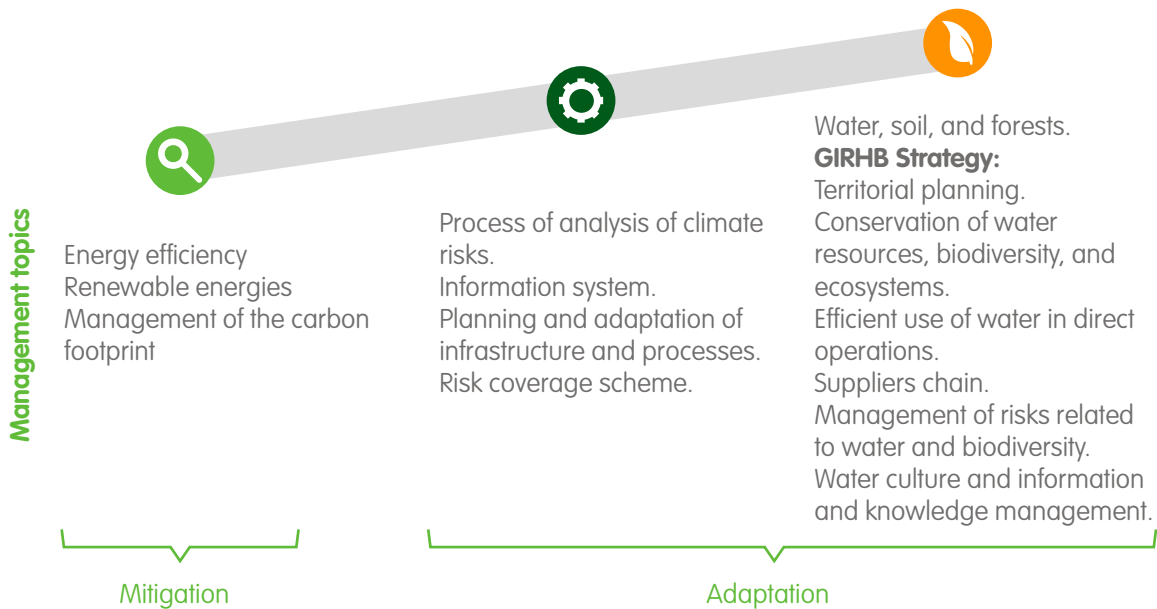
#### Strategic guidelines

-  GHG emissions management
-  Climate risk management
-  Water resources and biodiversity management

#### Core topics

- Development and innovation
- Strategic and inter-institutional planning
- Climate financing
- Information management

#### Carbon neutral operation Grupo EPM 2025



*Achieving resilient and carbon-efficient businesses is the focus of the new Grupo EPM's climate strategy, which seeks to consider the climate variable in the different analyses and decisions made, in order to contribute to sustainability and competitiveness, minimize vulnerability to climate risks, and achieve low GHG emission operations in all the regions where the group offers its services, under the principles of Comprehensiveness, Competitiveness, Flexibility, and Innovation.*

## Emission factor EPM / SIN 2017

| EPM's emission factor / SIN's emission factor |        |        |        |
|-----------------------------------------------|--------|--------|--------|
| Indicator tCO <sub>2</sub> e/ MWh year        | 2015   | 2016   | 2017   |
| EPM's emission factor                         | 0.0567 | 0.0498 | 0.0063 |
| SIN's emission factor                         | 0.2210 | 0.1900 | 0.0828 |

Source: EPM

The emission factor continues below the national electricity sector's emission factor, as a result of the minimal operation of the La Sierra thermal plant in 2017. The highest energy consumption in EPM was supported on electricity, natural gas, and biogas, respectively.

## Carbon neutral operation

| Grupo EPM's emission reduction projects to 2017 |               |                                     |                                     |                                     |
|-------------------------------------------------|---------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Projects / Standard                             | Credit period | tCO <sub>2</sub> e verified in 2015 | tCO <sub>2</sub> e verified in 2016 | tCO <sub>2</sub> e verified in 2017 |
| Jepírachi/ UNFCCC                               | 2011 - 2018   | 40,916                              | 27,872                              |                                     |
| La Vuelta and La Herradura/ UNFCCC              | 2010 - 2017   | 66,998                              | 77,149                              | 72,908                              |
| Ituango/ VCS                                    | 2018 - 2027   |                                     | 4,383,088                           |                                     |
| REDD+/ CCB                                      | 2014 - 2023   |                                     | 5,461                               |                                     |
| Los Cururos/ Gold Standard                      | 2014 - 2021   | 176,019                             | 197,424                             |                                     |
| <b>Total</b>                                    |               | <b>283,933</b>                      | <b>4,690,994</b>                    | <b>72,908</b>                       |

Source: EPM

**Jepírachi:** The reduced emissions reported for this project in 2015 correspond to the verified emissions accumulated between 01/31/2011 and 12/31/2012. However, for purposes of offsetting the group's carbon footprint, only reduced emissions generated from 2018 may be used, given the commercialization commitment with the World Bank in force until 2017.

**La Vuelta and La Herradura:** During 2017, the small power stations obtained the verification of 66,998 tCO<sub>2</sub>(2015) and 72,908 tCO<sub>2</sub> (2016) for a total of 536,372 tCO<sub>2</sub> for the project, considering the reduced emissions certified between 2010 and 2014: 73,569 tCO<sub>2</sub> (2010); 73,569 tCO<sub>2</sub> (2011); 81,125 tCO<sub>2</sub>(2012); 80,794 tCO<sub>2</sub> (2013); 87,409 tCO<sub>2</sub>(2014).



**Ituango:** As of 2017, the project does not have verified emission reductions, given that it will start operating only at the end of 2018. The estimated reduced emissions correspond to 4,383,088 tCO<sub>2</sub> per year (2018-2027), considering a total of 2,400 MW generated.

**Los Cururos:** During 2017, progress was made in the verification process of 90,795 tCO<sub>2</sub> of emissions reduced between July and December 2014 and 176,019 tCO<sub>2</sub> in 2015. Certificates are expected to be obtained in 2018.

| Availability of reduced emissions certified to offset carbon footprint |               |                                        |                                              |                                                                             |                                                                           |
|------------------------------------------------------------------------|---------------|----------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Emission reduction projects / Standard                                 | Credit period | tCO <sub>2</sub> e accumulated in 2017 | tCO <sub>2</sub> e in other initiatives 2017 | tCO <sub>2</sub> e available to offset the group's carbon footprint in 2017 | tCO <sub>2</sub> e available to offset the EPM's carbon footprint in 2017 |
| Jepírachi/ UNFCCC                                                      | 2011 - 2018   | 40,916                                 | 40,916                                       | -                                                                           | -                                                                         |
| La Vuelta and La Herradura/ UNFCCC                                     | 2010 - 2017   | 536,372                                | 16,500                                       | 519,872                                                                     | 519,872                                                                   |
| Ituango / VCS                                                          | 2018 - 2027   | -                                      | 6,402                                        | -6,402                                                                      | -6,402                                                                    |
| REDD+/ CCB                                                             | 2014 - 2023   | -                                      | -                                            | -                                                                           | -                                                                         |
| Los Cururos / Gold Standard                                            | 2014 - 2021   |                                        | 197,424                                      | -197,424                                                                    | -197,424                                                                  |
| <b>Total</b>                                                           |               | <b>577,288</b>                         | <b>261,242</b>                               | <b>316,046</b>                                                              | <b>316,046</b>                                                            |

Source: EPM

As of 2017, there is a total available emission reduction of 316,046 tCO<sub>2</sub>e to offset the carbon footprint either of the group or of EPM. This amount includes 1,180 REC in tCO<sub>2</sub>, redeemed in renewable energy certificates of the La Herradura project during this same period.

Balance regarding the EPM's emissions inventory in 2017

| Net balance of EPM's emissions 2015 - 2017                                                                                                                                                                                                                                     |                           |                           |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------|---------------------------|
| Emissions / Reductions                                                                                                                                                                                                                                                         | † CO <sub>2</sub> e 2015* | † CO <sub>2</sub> e 2016* | † CO <sub>2</sub> e 2017* |
| Scope 1                                                                                                                                                                                                                                                                        | 601,133                   | 508,597                   | 27,206                    |
| Scope 2                                                                                                                                                                                                                                                                        | 153,100                   | 119,452                   | 45,735                    |
| <b>Total emissions</b>                                                                                                                                                                                                                                                         | <b>754,233</b>            | <b>628,049</b>            | <b>72,941</b>             |
| Reduction of emissions from La Vuelta and La Herradura (it includes the annual verified emissions of the project in operation). As of 2017, it does not have CER commercialization commitments; however, it sold 1,180 renewable energy certificates (REC) during this period. | 87,009                    | 66,998                    | 72,908                    |
| <b>Balance</b>                                                                                                                                                                                                                                                                 | <b>-667,224</b>           | <b>-561,051</b>           | <b>-33</b>                |

Source: EPM


\* The emission reduction corresponds to the verification of the emissions achieved through the operation of each project during the previous year.

Balance regarding the Grupo EPM's emissions inventory in 2017

| Net balance of Grupo EPM's emissions 2015 - 2017                                                                                                                                                                                              |                           |                           |                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------|---------------------------|
| Emissions / Reductions                                                                                                                                                                                                                        | † CO <sub>2</sub> e 2015* | † CO <sub>2</sub> e 2016* | † CO <sub>2</sub> e 2017* |
| Scope 1                                                                                                                                                                                                                                       | 665,972                   | 584,627                   | 62,674                    |
| Scope 2                                                                                                                                                                                                                                       | 265,592                   | 279,113                   | 165,350                   |
| <b>Total emissions</b>                                                                                                                                                                                                                        | <b>931,564</b>            | <b>863,740</b>            | <b>228,024</b>            |
| Reduction of emissions from La Vuelta and La Herradura (accumulated amount between 2010 and 2016, minus the tCO <sub>2</sub> e corresponding to the 1,180 renewable energy certificates of the La Herradura project sold during this period). | 87,090                    | 66,998                    | 154,088                   |
| <b>Balance</b>                                                                                                                                                                                                                                | <b>-931,564</b>           | <b>-796,742</b>           | <b>-73,936</b>            |

Source: EPM

\* The emission reduction corresponds to the verification of the emissions achieved through the operation of each project during the previous year.




From the total emission reduction accumulated between 2015 and 2017, the annual offset of the carbon footprint keeps a negative balance for both EPM and the group.

## GRI Standards and EPM indicators

**201-2** Financial implications and other risks and opportunities due to climate change.

**305-5** Reduction of GHG emissions.



# Climate change mitigation

Set of actions, initiatives, projects, and programs developed by the company with the purpose of avoiding and reducing the greenhouse gas emission in its processes and operations.

## Management in 2017

During 2017, we highlight the progress made in the initiatives associated with control of leaks, energy losses, energy efficiency, and fossil fuel demand by the different companies that make up Grupo EPM, in order to contribute to the mitigation plan and the carbon neutral operation of the group by 2025.

Total emissions reduced in the group's emissions inventory, going from 833,741 tCO<sub>2</sub>e in 2016 to 228,024 tCO<sub>2</sub>e in 2017. This is mainly due to the minimal operation of La Sierra power station during 2017, which only generated 15 GWh/year from natural gas and fuel oil in this period. Likewise, there was a decrease in the emissions of other pollutants such as SOx and NOx.

Emvarias reduced greenhouse gas emissions thanks to the use of a natural gas fleet. While in 2016, a total of 9,235 tons less of CO<sub>2</sub> were emitted, in 2017 a total of 13,493 tons less of CO<sub>2</sub> were emitted; 256 tons of nitrous oxide in 2016 and 345 tons in 2017; 242 tons of carbon monoxide in 2016 and 725 tons in 2017; and finally, 78 tons of methane in 2016 and 121 tons in 2017.

There was a reduction in emissions corresponding to 120.91 tCO<sub>2</sub>e thanks to the development of the energy efficiency program in the water business at EPM.

Through the energy optimization program in the San Fernando Wastewater Treatment Plant, the emission of 43,407.16 tCO<sub>2</sub>e was avoided by converting the 5,261,181 m<sup>3</sup> of biogas produced in the year into 6.8 GWh used for the plant's internal operation (42.5% of its energy needs).

The District Cooling in La Alpujarra sector in Medellín started operations to improve the energy efficiency of the public buildings within the sector, replace the air conditioning systems that work with ozone-depleting substances (ODSs), and generate environmental benefits. ODSs decreased by 100%, and there were savings of more than 37% in direct and indirect greenhouse gas emissions and a reduction of 59.24% in CO<sub>2</sub> emissions.

The percentage of SF<sub>6</sub> gas emissions reduced thanks to the equipment maintenance program carried out by EPM, going from 0.096% in 2016 to 0.024% in 2017.

A total of 410 ha of forest in the areas of influence of ESSA were preserved; 904 ha, in those of CHEC; and 16.5 ha, in those of EDEQ, within the framework of the development of the BanCO2 agreement.

An 8% reduction in CO<sub>2</sub>e emissions was achieved thanks to the consumption of fossil fuels at Eegsa.

We also highlight the installation of four weather stations for conducting performance tests and incorporating information into the SCADA system, within the framework of the development of its SMART GRID project.

During 2017, important progresses were made at each of the companies and businesses of Grupo EPM, associated with energy efficiency and emissions management, such as:

- EPM replaced 5,264 streetlights with LED technology in urban projects in the city of Medellín, which represents an energy saving of 40%.
- ENSA launched the remote management pilot project for the public lighting system and promoted the remote network project to make it easier for its customers throughout the country to pay their electricity bill, avoiding displacement and indirect emissions.
- Delsur developed information campaigns on efficient use of electric energy with customers and communities.
- Eegsa managed to reforest 3.6 hectares in the United Nations National Park in Guatemala and donate 5,000 plants in two municipalities. In addition, mechanisms for estimating carbon capture are analyzed, together with the 6,000 trees planted in 2016.
- The teleworking pilot plan in Guatemala continued, with which an approximate reduction of 2.04 tCO<sub>2</sub>e is estimated within six months, thanks to the participation of 15 employees.
- Programs on energy efficiency, energy use, and use of the biogas produced at the San Fernando Wastewater Treatment Plant were implemented.
- The entire diesel-fueled fleet was converted to natural gas in Emvarias's solid waste collection business.
- The Sustainable Corporate Mobility Plan of the metropolitan area of the Valle de Aburrá was fostered through the supply of natural gas to the transport sector and the development of economic incentives. An estimated reduction of 24.8 tons of PM2.5 is calculated in 2017.
- CENS continued with its program of vehicle control and direct and indirect consumption of gasoline and diesel.
- The maintenance programs for SF6 gas-insulated equipment continued in all the group's companies.

See energy consumption (complementary aspect: Sustainable production and consumption).

Some of the specific challenges of the companies and businesses for 2018 include:

- Acquire eight more natural gas vehicles for the Emvarias's waste collection fleet.
- Continue with the maintenance program for SF6 gas-insulated equipment and the technology replacement in the streetlights of the city of Medellín and its small towns.
- Receive certification in energy consumptions obtained from the installation of photovoltaic systems at CENS, as well as get its greenhouse gas emissions inventory validated by an external entity.

- Calculate the emissions gap at CHEC to establish its program of contribution to carbon neutral operation from its operations and define the methodology to calculate the carbon captured by the forests owned by the company, which allow preserving water resources.
- Obtain the inventory of CO<sub>2</sub>e emissions at the business level in EDEQ. Complete the verification process with an external entity to achieve its carbon neutral operation and buy the emission reduction certificates of the Colombian Coffee Growers Federation.
- Continue reforesting 100% of the trees felled by ENSA in a one-to-one ratio (goal for 2020). Quantify the carbon footprint at the business level and install parking facilities for bicycles at the headquarters and charging points for electric cars.
- Maintain the performance indicator of the Delsur's vehicle fleet and achieve a 3% reduction in the electric power consumption based on that obtained in 2017.

| Emissions inventory (scope 1 and 2) - Grupo EPM |                             |                              |                            |
|-------------------------------------------------|-----------------------------|------------------------------|----------------------------|
| Scope                                           | Ton CO <sub>2</sub> e 2015* | Ton CO <sub>2</sub> e 2016** | Ton CO <sub>2</sub> e 2017 |
| Scope 1                                         | 665,972                     | 584,627                      | 62,674                     |
| Scope 2                                         | 265,592                     | 249,113                      | 165,350                    |
| <b>Total</b>                                    | <b>931,564</b>              | <b>833,740</b>               | <b>228,024</b>             |

Source: EPM

\* (Including energy affiliated companies: ESSA, CHEC, CENS, and EDEQ; and water affiliated companies: Oriente, Urabá, Atrato, Occidente, Malambo, and EPM).

\*\* (Including EPM and national and international water and energy affiliated companies, except for HET, Cururos, and Ticsa).

The differences in the emissions in tCO<sub>2</sub>e in 2017 compared to those in 2015 and 2016 are due to the high consumption of fossil fuels for the generation of thermal energy in the La Sierra power station which operated at 100% of capacity—mainly from the consumption of fossil fuels—during the two previous periods, in order to guarantee the energy backup of EPM during the El Niño's occurrence between 2015 and 2016.

Grupo EPM has had a baseline of emissions inventories since 2012, which were drawn up following the GHG Protocol Corporate Accounting and Reporting Standard. It shows the greatest variations in the periods of occurrence of these phenomena and when there are high demands of fossil fuels for thermal operation and transport services.

| Emissions inventory (scope 1 and 2) - EPM |                            |                            |                            |
|-------------------------------------------|----------------------------|----------------------------|----------------------------|
| Scope                                     | Ton CO <sub>2</sub> e 2015 | Ton CO <sub>2</sub> e 2016 | Ton CO <sub>2</sub> e 2017 |
| Scope 1                                   | 601,133                    | 508,597                    | 27,206                     |
| Scope 2                                   | 153,100                    | 119,452                    | 45,735                     |
| <b>Total</b>                              | <b>754,233</b>             | <b>628,049</b>             | <b>72,941</b>              |

Source: EPM

The variations in the emissions in 2017 compared to those in 2015 and 2016 are due to the high fossil fuel demand for the operation of the La Sierra thermal power station, whose operation was mostly supported with fuel oil, as a result of the El Niño's impact on water generation.

For EPM, the emissions inventory has been drawn up since 2008 following the GHG Protocol Corporate Accounting and Reporting Standard (revised edition).

| Emissions (scope 3) - EPM       |                  |                  |                  |
|---------------------------------|------------------|------------------|------------------|
| Category                        | 2015             | 2016             | 2017             |
| Goods and services              | 16,180           | 16,118           | 16,118           |
| Capital assets                  | 525              | 525              | 525              |
| Fuel-related activities         | 19,320           | 67,355           | 2,049            |
| Waste resulting from operations | 34,900           | 42,143           | 51,767           |
| Corporate trips                 | 3,390            | 4,756            | 2,363            |
| Personnel transportation        | 1,680            | 1,287            | 1,287            |
| End use of products sold        | 2,648,158        | 2,390,537        | 2,718,413        |
| <b>Total emissions</b>          | <b>2,781,403</b> | <b>2,522,721</b> | <b>2,792,521</b> |

Source: EPM

To calculate results in 2017, in the "goods and services" and "capital goods" categories, the same values obtained in the 2012 base inventory are maintained. Likewise, in the "personnel transportation" category, the 2015 value obtained from the surveys applied to the company's employees in said period is used.

The comparison of the results between the three periods presented in this scope during 2017 allows validating that the "end use of products sold" category remains the largest determinant in the calculation exercise, as it represents 95% of the total emissions.

In 2017, there is a slight increase in users' energy consumption (13.72% more than the total emissions in 2016 in this category), as well as a significant reduction in the "fuels" category, which is mainly due to the lower demand of fuels by third parties for internal operations.

| Other emissions - Grupo EPM                                             |                     |             |                     |             |                     |             |
|-------------------------------------------------------------------------|---------------------|-------------|---------------------|-------------|---------------------|-------------|
| Year                                                                    | 2015 <sup>(1)</sup> |             | 2016 <sup>(2)</sup> |             | 2017 <sup>(3)</sup> |             |
| SOx and NOx emissions (ton/year)                                        | NOx                 | SOx         | NOx                 | SOx         | NOx                 | SOx         |
| La Sierra thermal power station (isokinetic sampling)                   | 1,151.08            | 0.90        | 721.29              | 0.65        | 3.89                | -           |
| *Personnel transportation, EPM's supplies and products in own vehicles. | 43.37               | 0.34        | 94.22               | 0.85        | 90.83               | 1.27        |
| <b>Total</b>                                                            | <b>1,194.45</b>     | <b>1.24</b> | <b>815.51</b>       | <b>1.50</b> | <b>94.72</b>        | <b>1.27</b> |

Source: EPM

(1) Including EPM, CHEC, ESSA, Aguas de Urabá, Aguas de Malambo, Aguas del Oriente, Emvarias, and Delsur.

(2) Including EPM, Aguas de Malambo, CHEC, ESSA, Aguas del Oriente, Delsur, Aguas Regionales EPM, and ENSA.

(3) Including EPM, Aguas de Malambo, CENS, CHEC, ESSA, Aguas del Oriente, Delsur, Aguas Regionales, ENSA, Eegsa, HET, and Ticsa.

\* Data on the emissions corresponding to transportation of people, vehicles, and products in 2016 were adjusted by some companies based on the updated information of vehicles for that period, as well as the figures corresponding to the emissions generated in 2015 by the La Sierra thermal power station.

The variations in the total emissions compared to the previous year are due to the minimum operation at the La Sierra thermal power station during this period. (15 GW from natural gas and fuel oil).

| Other emissions - Grupo EPM |             |                      |            |             |
|-----------------------------|-------------|----------------------|------------|-------------|
| Year                        | Benzene     | Particulate material | CO         | VOCs        |
| 2015 <sup>(1)</sup>         | 0.13        | 1.05                 | 62.03      | 8.98        |
| * 2016 <sup>(2)</sup>       | 0.49        | 2.98                 | 148.81     | 19.61       |
| 2017 <sup>(3)</sup>         | 0.29        | 2.98                 | 169.98     | 15.03       |
| <b>2017/2016 variation</b>  | <b>-40%</b> | <b>33%</b>           | <b>14%</b> | <b>-23%</b> |

Source: EPM

(1) Including EPM, CHEC, ESSA, Aguas de Urabá, Aguas de Malambo, Aguas del Oriente, Emvarias, and Delsur.

(2) Including EPM, Aguas de Malambo, CHEC, ESSA, Aguas del Oriente, Delsur, Aguas Regionales EPM, and ENSA.

(3) Including EPM, Aguas de Malambo, CENS, CHEC, ESSA, Aguas del Oriente, Delsur, Aguas Regionales, ENSA, Eegsa, HET, and Ticsa.

\* Data on the emissions corresponding to transportation of people, vehicles, and products in 2016 were adjusted by some companies based on the updated information of vehicles for that period.

The emissions of benzene, particulate material smaller than 10 micrometers (MP10), carbon monoxide (CO), and volatile organic compounds (VOCs), associated with the consumption of fuel in the fleets of EPM and its affiliated companies, are calculated in tons/year.

The following are the emissions of refrigerant gases associated with the maintenance of air conditioning units in the company's offices for this period: HCFC: R-22: 0.16 tons, HCFC: R-123: 0.68 tons.



| Other emissions - EPM                                                    |                     |             |                     |             |                     |             |
|--------------------------------------------------------------------------|---------------------|-------------|---------------------|-------------|---------------------|-------------|
| Year                                                                     | 2015 <sup>(1)</sup> |             | 2016 <sup>(2)</sup> |             | 2017 <sup>(3)</sup> |             |
| SOx and NOx emissions (ton/year)                                         | NOx                 | SOx         | NOx                 | SOx         | NOx                 | SOx         |
| La Sierra thermal power station (isokinetic sampling)                    | 1,151.08            | 0.90        | 721.29              | 0.65        | 3.89                | -           |
| * Personnel transportation, EPM's supplies and products in own vehicles. | 13.98               | 0.10        | 12.15               | 0.09        | 25.50               | 0.23        |
| <b>Total</b>                                                             | <b>1,165</b>        | <b>1.00</b> | <b>733.44</b>       | <b>0.74</b> | <b>29.39</b>        | <b>0.23</b> |

Source: EPM

(1) 270 motorcycles, 257 automobiles and pick-up trucks, 95 trucks and buses.

(2) 262 motorcycles, 291 automobiles and pick-up trucks, 92 trucks and buses.

(3) 291 motorcycles, 305 automobiles and pick-up trucks, 93 trucks and buses.

\* The emissions corresponding to 2016 were updated based on the information adjusted by the area in charge of administration and transport, as well as the emissions generated in 2015 by the La Sierra thermal power station.

The variations in 2017 are mainly due to the minimal operation at the La Sierra thermal power station. 15 GWh/year from natural gas and fuel oil in this period.

| Other emissions - EPM      |                |                      |               |              |
|----------------------------|----------------|----------------------|---------------|--------------|
| Year                       | Benzene        | Particulate material | CO            | VOCs         |
| 2015 <sup>(1)</sup>        | 0.02           | 0.44                 | 14.00         | 3.20         |
| *2016 <sup>(2)</sup>       | 0.26           | 0.27                 | 7.27          | 7.05         |
| 2017 <sup>(3)</sup>        | 0.12           | 1.06                 | 74.67         | 6.98         |
| <b>2017/2016 variation</b> | <b>-53.85%</b> | <b>165%</b>          | <b>27.49%</b> | <b>-0.9%</b> |

Source: EPM

(1) 270 motorcycles, 257 automobiles and pick-up trucks, 95 trucks and buses.

(2) 262 motorcycles, 291 automobiles and pick-up trucks, 92 trucks and buses.

(3) 291 motorcycles, 305 automobiles and pick-up trucks, 93 trucks and buses.

\* The emissions corresponding to 2016 were updated based on the information adjusted by the area in charge of administration and transport.

The following emissions are calculated based on factors established by the United States Environmental Protection Agency (EPA) [1], which include the characteristics of the vehicles and the distances traveled: benzene, particulate material smaller than 10 micrometers (MP10), carbon monoxide (CO), volatile organic compounds (VOC) associated with EPM's vehicle fleet which comprises 262 motorcycles, 291 motorcycles, 305 automobiles and pick-up trucks, and 93 trucks and buses. These emissions remain in barely significant amounts.

*The following are the emissions of refrigerant gases associated with the maintenance of air conditioning units in the company's offices during 2017: HCFC R-22: 0.01 tons and HCFCR-123: 0.68 tons.*

## GRI Standards and EPM indicators

- 305-1** Direct (Scope 1) GHG emissions.
- 305-2** Energy indirect (Scope 2) GHG emissions.
- 305-3** Other indirect (Scope 3) GHG emissions.
- 305-4** GHG emissions intensity.
- 305-6** Emissions of ozone-depleting substances (ODS).
- 305-7** Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions.

# Adaptation to natural variability and climate change

Set of strategies, measures, and projects duly identified, assessed, and prioritized over time, in accordance with the scale of risk related to climate events, in order to define actions that contribute to the sustainability of the company, its services, and its environment by adapting to climate conditions and changes.

## Management in 2017

The formulation of the group's 2018-2030 Adaptation Plan started thanks to an external support and the participation of representatives from all the group's national and international companies and businesses.

The climate risk indexes and maps by company and business, the existing controls, and the internal and external initiatives were obtained, and the methodology for their evaluation and prioritization was agreed.

The second phase of the study conducted along with the Universidad Nacional de Colombia, Medellín campus, started, and the documentation corresponding to the strategy of climate modeling and scaling for the basins of interest of EPM's water and energy businesses was developed.

The results of the "Conceptual assessment of the status of the water supply and the installed capacity of the catchment infrastructure for the supply system of the Aburrá and San Nicolás valleys based on the projected demand, with projections to 2050" study were announced. This study aims to establish the guidelines of the water resource supply in low flow seasons. Likewise, progress was made in the study to identify new sources to supply drinking water for the Urabá region.

A total of 410 ha of forest in the areas of influence of ESSA were preserved through payments to 42 families for their environmental services; 904 ha, in those of CHEC; 16.5 ha, in those of EDEQ; and 1,488 ha in those of EPM managed by 62 families, within the framework of the development of the BanCO2 agreement.

CHEC, jointly with institutions that have stations in the department of Caldas and that are part of the agreement with Caldas Governor's Office, Aguas de Manizales, and the Universidad Nacional de Colombia, consolidated a hydroclimatological monitoring network. Through this alliance, the integration between the environmental authority and the municipality of Manizales will be achieved, and the collection of information for risk management and the operation of public water and energy services will be strengthened.

As part of the SMART GRID project, four weather stations in regions within Eegsa's area of influence were installed, which will allow conducting performance tests and obtaining meteorological information by means of an industrial protocol.

In addition to the climate risk scenarios, indices, and maps by company and business—basic input for the final formulation of the Adaptation Plan for the EPM business group—, the following components were obtained, jointly with the consultancy team and the working group representing all the companies and businesses:

- Diagnosis and analysis of climate risks in the group.
- Analysis of hydrometeorological information for each region or country where the group's businesses or companies operate.
- Analysis of initiatives and references of international experiences regarding adaptation plans of interest to Grupo EPM.
- Analysis of vulnerability of each region and country where each group's company is located.
- Progress in the vulnerability analysis of the businesses and the companies.
- Analysis of initiatives, plans, programs, and projects identified or under development, by each region or country, to allow their adaptation to climate change.

Moreover, several virtual and face-to-face workshops were held with the work team, and progress was made in the final phase of the consultancy process.

Aguas Regionales carried out groundwater harvesting as part of the solutions to guarantee community supply, during dry seasons, in the region of Urabá in Antioquia.

Among all the companies in the water business, progress was made in updating the contingency plans, considering the climate risk scenarios associated with El Niño and La Niña phenomena. In addition, the goal of conservation areas for the protection of water resources with direct contribution to mitigation and improvements in air quality was exceeded.

Some of the specific challenges of the companies and businesses for 2018 include:

- Continue participating in the conclusion of the group's Adaptation Plan and ensure the implementation of the actions that correspond to them.
- Continue with the voluntary contributions to the BanCO2 agreement.
- Economically compensate 50 ranger families in the area of influence of ESSA.
- Share and validate, at ENSA, the methodology defined in 2017 for the identification of economic, social, and environmental risks derived from climate change for their projects and start the implementation plan.
- Define the climate strategy for Delsur, in accordance with the climate strategy defined for Grupo EPM.

- Implement the SMART GRID project at Eegsa and establish the actions for climate adaptation; install weather stations; and carry out studies to strengthen climate analysis.

## GRI Standards and EPM indicators

**201-2** Financial implications and other risks and opportunities due to climate change.



**Unserved  
population**



**Grupo·epm®**





## Unserved population

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Unserved populations are those settlements where technical or legal issues limit the provision of the service, such as those located in high-risk areas or outside the perimeters of the land use plans (LUPs). The solutions often exceed the exclusive scope of the companies providing the service; therefore, the involvement of multiple actors becomes necessary.

### Stakeholders' vision

Given its purpose and capabilities, Grupo EPM is expected to exert leadership by calling other stakeholders with skills and capabilities to propose solutions to provide the service.

### Relevance

Because of the high social value for the group's companies and stakeholders and because they have a major impact on building sustainable and competitive territories, unserved populations acquire the status of independent material topics.

Given its purpose and capabilities, Grupo EPM is a stakeholder responsible for convening other stakeholders to find solutions aimed at unserved population. Also, this is a defining aspect of poverty, related directly to the group's businesses, and consequently affects the group in ethical and reputational terms as well as in non-technical losses. This is also worsened by environmental conditions such as conflicts between neighbors or increased geological risk in the case of water services.

### Risk in sustainability associated with this topic

- Lack of public utilities service for the population settled outside the perimeters of the LUPs or in high risk areas.

For more detailed information on the risk analysis associated with material topics, see Material aspects and boundaries (General information).

## Main achievements

| Goals for 2017                                                                                                                         | Achievements in 2017                                                                                           | Accomplishment |
|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------|
| As of December 2017, it was expected to have 6,690 water supply connections in existing homes that do not have access to this service. | As of December 2017, EPM connected 6,379 customers to the water supply service, accomplishing 95% of the goal. | Partial        |
| As of December 2017, it was expected to have 6,690 sewerage connections in existing homes that do not have access to this service.     | As of December 2017, EPM connected 6,429 customers to the sewerage service, accomplishing 96% of the goal.     | Partial        |
| As of December 2017, it was expected to have 2,000 energy connections in existing homes that do not have access to this service.       | As of December 2017, EPM connected 4,764 customers to the energy service, accomplishing 238% of the goal.      | Total          |
| As of December 2017, it was expected to have 2,100 gas connections in existing homes that do not have access to this service.          | As of December 2017, EPM connected 5,662 customers to the gas service, accomplishing 270% of the goal.         | Total          |

## Challenges

| Challenge                                                                                                               | Year in which it is achieved | Scope and coverage   |              |                                     | Achievement indicator                                                                  |
|-------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|--------------|-------------------------------------|----------------------------------------------------------------------------------------|
|                                                                                                                         |                              | Territory            | Business     | Company                             |                                                                                        |
| As of December 2018, achieve 11,650 water supply connections in existing homes that do not have access to this service. | 2018                         | Colombia – Antioquia | Water supply | Empresas Públicas de Medellín - EPM | Number of existing homes connected / goal of number of existing homes without service. |
| As of December 2018, achieve 11,650 sewerage connections in existing homes that do not have access to this service.     | 2018                         | Colombia – Antioquia | Sanitation   | Empresas Públicas de Medellín - EPM | Number of existing homes connected / goal of number of existing homes without service. |



| Challenge                                                                                                        | Year in which it is achieved | Scope and coverage   |                   |                                     | Achievement indicator                                                                  |
|------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|-------------------|-------------------------------------|----------------------------------------------------------------------------------------|
|                                                                                                                  |                              | Territory            | Business          | Company                             |                                                                                        |
| As of December 2018, achieve 1,000 energy connections in existing homes that do not have access to this service. | 2018                         | Colombia – Antioquia | Electrical energy | Empresas Públicas de Medellín - EPM | Number of existing homes connected / goal of number of existing homes without service. |
| As of December 2018, achieve 1,900 gas connections in existing homes that do not have access to this service.    | 2018                         | Colombia – Antioquia | Gas               | Empresas Públicas de Medellín - EPM | Number of existing homes connected / goal of number of existing homes without service. |

## Management in 2017

Thanks to the joint work of EPM with the municipality of Medellín, the Social Institute for Housing and Habitat of Medellín (Isvimed), the Enterprise of Urban Development (EDU), among other organizations, it was possible to transform 23,234 homes with the services of energy, gas, sewerage, and water supply.

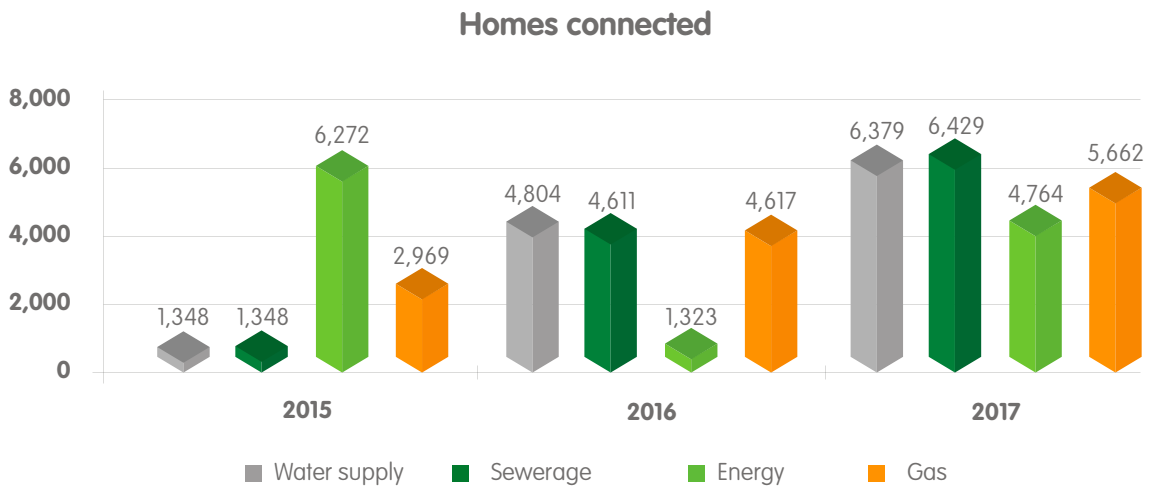
Since the beginning of the Unidos por el Agua (United for Water) program, 11,317 homes that were built a long time ago and did not have public water supply and sewerage services have been benefited. In addition, their environment was improved with infrastructure and public space works and their buildings were recognized with a process of legalization and independence of domiciliary public utilities.

In 2017, EPM contributed to the improvement of quality of life of people living in homes that did not have the services due to technical or legal limitations. The contribution consisted in connecting 6,379 customers to the water supply service, 6,429 to the sewerage service, 4,764 to the energy service, and 5,662 to the gas service. The accomplishment for the year was 133%.

| Homes connected |               |               |               |
|-----------------|---------------|---------------|---------------|
| Business        | 2015          | 2016          | 2017          |
| Water supply    | 1,348         | 4,804         | 6,379         |
| Sewerage        | 1,348         | 4,611         | 6,429         |
| Energy          | 6,272         | 1,323         | 4,764         |
| Gas             | 2,969         | 4,617         | 5,662         |
| <b>Total</b>    | <b>11,937</b> | <b>15,355</b> | <b>23,234</b> |

Source: Vice Presidencies of Water Supply and Sanitation, Gas, and Power Transmission and Distribution

Connections to the energy service reported in 2015 correspond to those executed in Antioquia. Connections reported in 2016 and 2017 correspond to those carried out in Medellín.



Source: Vice Presidencies of Water Supply and Sanitation, Power Transmission and Distribution, and Gas

## GRI Standards and EPM indicators

**103-1** Explanation of the material topic and its boundary.

**103-2** The management approach and its components.

**103-3** Evaluation of the management approach.

**EPM-12** Solutions for unserved homes.

## Sustainable Development Goals





**Respect** and  
promotion of  
human rights



Grupo·epm®





## Respect and promotion of human rights

By proclaiming its human rights institutional policy, Grupo EPM announces its commitment to adopt, in its own operations, and to promote, in the operations with third parties, compliance with the provisions of the Universal Declaration of Human Rights and its protocols, conventions, and binding agreements, including the International Humanitarian Law, and the constitution and the legal framework of each country where it operates. For the organization, this represents a challenge in terms of its own sustainability, and it takes it on with the conviction that respect for human dignity is a core commitment included in the sustainable human development agenda.

### Stakeholders' vision

It is essential to develop a due diligence process aimed at the respect and the promotion of human rights in the group's practices (including its supply chain), by evaluating whether the company's relationships with its stakeholders can sometimes lead to situations affecting human rights, based on the context of operations.

### Relevance

Avoiding direct impacts derived from the operation or involuntary effective or perceived contributions to adverse impacts on human rights caused by third parties represents a commitment that the company cannot avoid regarding human dignity.

From the point of view of risk management, this approach is fundamental to ensure operational viability and compliance with the strategic objectives, as well as to avoid financial, legal, and reputational impacts.

### Risks in sustainability associated with this topic

- Insufficient strategies and actions to guarantee the respect and promotion of human rights in Grupo EPM, its supply chain, and other stakeholders.
- Unfounded accusations, by third parties, against the company or its contractors regarding violation of human rights.

For more detailed information on the analysis of risks associated with material topics, see material aspects and boundaries (General information).

## Main achievements

| Goals for 2017                                                                                                                                                                   | Achievements in 2017                                                                                                                                                               | Accomplishment |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Design the HR risk atlas for the national affiliated companies providing water and sanitation services and two international affiliates.                                         | A risk atlas was designed for Eegsa, Aguas Regionales, Aguas de Malambo, and Emvarias. The same effort began for Delsur and will be completed in 2018.                             | Partial        |
| Draw up strategies to address the prioritized risks regarding HR for the national affiliated companies providing water and sanitation services and two international affiliates. | The approach strategy and treatment plan was designed for Eegsa, Aguas Regionales, Aguas de Malambo, and Emvarias. The same effort began for Delsur and will be completed in 2018. | Partial        |
| Adopt the HR policy in the national affiliated companies providing water and sanitation services and two international affiliates.                                               | Policies have been approved at Eegsa, Aguas Regionales, Aguas de Malambo, and Emvarias. The same effort began for Delsur and will be completed in 2018.                            | Partial        |

## Challenges

| Challenge                                                                                                                           | Year in which it is achieved | Scope and coverage |                   |                                                | Achievement indicator                                           |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|-------------------|------------------------------------------------|-----------------------------------------------------------------|
|                                                                                                                                     |                              | Territory          | Business          | Company                                        |                                                                 |
| Identify risks regarding HR, define treatment plans, and adopt the institutional policy at Adasa, HET, Delsur, EPM Chile, and ENSA. | 2018                         | Panama             | Electrical energy | Elektra Noreste - ENSA                         | Risk atlas designed, treatment plan defined, and policy adopted |
|                                                                                                                                     |                              | Panama             | Electrical energy | Hidroecológica del Teribe - HET                |                                                                 |
|                                                                                                                                     |                              | El Salvador        | Electrical energy | Distribuidora de Electricidad del Sur - Delsur |                                                                 |
|                                                                                                                                     |                              | Chile              | Water             | Aguas de Antofagasta - Adasa                   |                                                                 |
|                                                                                                                                     |                              | Chile              | Electrical energy | EPM Chile                                      |                                                                 |

| Challenge                                                                                                                            | Year in which it is achieved | Scope and coverage            |                    |                                                    | Achievement indicator                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------|--------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------|
|                                                                                                                                      |                              | Territory                     | Business           | Company                                            |                                                                                                        |
| Design and implement the strategies to manage the extreme-level risks in HR identified for EPM in 2017.                              | 2018                         | Colombia – Antioquia          | All the businesses | Empresas Públicas de Medellín - EPM                | Procedure to monitor safety practices; procedure for the due diligence process of property management. |
| Develop a proposal to implement HR grievance mechanisms at CHEC, EDEQ, CENS, ESSA, Aguas de Malambo, Aguas Regionales, and Emvarias. | 2018                         | Colombia – Antioquia          | Water              | Aguas Regionales EPM                               | Design of a grievance mechanism to be implemented at each company.                                     |
|                                                                                                                                      |                              | Colombia – Antioquia          | Sanitation         | Empresas Varias de Medellín - Emvarias             |                                                                                                        |
|                                                                                                                                      |                              | Colombia – Caldas             | Electrical energy  | Central Hidroeléctrica de Caldas - CHEC            |                                                                                                        |
|                                                                                                                                      |                              | Colombia – Quindío            | Electrical energy  | Empresa de Energía del Quindío - EDEQ              |                                                                                                        |
|                                                                                                                                      |                              | Colombia – Santander          | Electrical energy  | Electrificadora de Santander - ESSA                |                                                                                                        |
|                                                                                                                                      |                              | Colombia - Norte de Santander | Electrical energy  | Centrales Eléctricas del Norte de Santander - CENS |                                                                                                        |
|                                                                                                                                      |                              | Colombia - Malambo, Atlántico | Water              | Aguas de Malambo                                   |                                                                                                        |

## GRI Standards and EPM indicators

- 103-1** Explanation of the material topic and its boundary.
- 103-2** The management approach and its components.
- 103-3** Evaluation of the management approach.
- 406-1** Incidents of discrimination and corrective actions taken.
- 407-1** Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk.
- 408-1** Operations and suppliers at significant risk for incidents of child labor.
- 409-1** Operations and suppliers at significant risk for incidents of forced or compulsory labor.
- 410-1** Security personnel trained in human rights policies or procedures.
- 411-1** Incidents of violations involving rights of indigenous peoples.
- 412-1** Operations that have been subject to human rights reviews or impact assessments.
- 412-2** Employee training on human rights policies or procedures.
- 412-3** Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening.
- 413-1** Operations with local community engagement, impact assessments, and development programs.
- 414-1** New suppliers that were screened using social criteria.
- 414-2** Negative social impacts in the supply chain and actions taken.
- EU22** Number of physically or economically displaced people and the compensation granted, detailed by type of project.

## Sustainable Development Goals



## Human rights in the supply chain

Since human rights started to be addressed institutionally in 2011, EPM has concentrated much of its efforts to promote their management throughout its supply chain, with the purpose of having its entire value chain aligned with the commitment to respect and promote HR, recognizing the risks that operations through third parties may entail.

In line with this approach and considering that it is important to strengthen this management in the country's corporate practice, the company has been working on the conceptual approach, the insertion of practices, and the adoption of instruments consistent with respect for HR along with the contractors of the group's companies.

Based on this framework, during 2017, part of the efforts of Grupo EPM's companies in Colombia and their suppliers were focused on identifying risks and designing strategies to address them, as well as on raising awareness among companies regarding this matter.

### Management in 2017

As part of the risk updating exercise, in 2017, the operations of the contractors with whom the organization has a business relationship were evaluated, in order to identify operational situations that may entail possible negative effects on HR. Among the most relevant findings, potential risk situations that had already been identified in previous exercises and that can generally take place in any outsourcing practice were identified.

The aspects to which attention was drawn and which are currently addressed through different actions have to do with conditions of decent work, health and safety at work, and employment of child labor. Although suppliers were not analyzed individually, an analysis of the risks of the supply chain operation process has been made in all its stages.

The aforementioned and other matters are explicitly addressed in the organization's HR policy which is included in the bid specifications and which contractors agree to accept at the time of formalizing the contractual relationship.

In addition to this, the organization developed an exercise to identify and assess risks in the different stages of supplier management, which allows classifying them to determine if they ensure the continuity of their business or are at high risk regarding sustainability. For each stage of the supplier management process, initiatives have been defined to identify, assess, and classify risks in sustainability at each moment of interaction between the supplier and the organization. Thus, in the stage of implementation of the contract, compliance with the obligations associated with health and safety at work is monitored, and payment of labor and contractual obligations is verified.



During 2017, the second version of the code of conduct for the group's suppliers and contractors was drawn up, considering the adjustments that were identified based on different assessments (Dow Jones Sustainability Index, Satisfaction Index, and internal audits). This code is included in the contract documents, in order to urge each supplier and contractor to disseminate, among its employees, the institutional guidelines related to different topics, including HR.

At EPM, the institutional mechanism for human rights incidents for employees of contractor companies is still in operation. This tool was designed to facilitate the relationship with this group and identify actions to strengthen processes related to contractual management and respect for HR among contractors and their personnel. It is coordinated by the Supplier Diversity and Development Unit, an area that, based on the particular features of each incident, makes up a team with representatives from different areas of the company, conducts the investigation, and gives a final recommendation.

In 2017, EPM participated actively in the development of the guideline for the supply chain management, while meeting criteria of HR, promoted by Guías Colombia, an initiative that fosters and supports business-environment relationships under minimum standards of compliance and respect for HR and the International Humanitarian Law (IHL) in the country. The guideline was officially launched in November and is available for companies at [www.ideaspaz.org/tools/guias-colombia](http://www.ideaspaz.org/tools/guias-colombia).

At the energy affiliated companies in Colombia, work began on awareness-raising and training of suppliers and contractors in order to formally incorporate the topic of HR in the operations.

| Indicators of the mechanism for addressing complaints for suppliers and contractors' employees |      |      |      |
|------------------------------------------------------------------------------------------------|------|------|------|
|                                                                                                | 2015 | 2016 | 2017 |
| Received                                                                                       | 8    | 5    | 10   |
| Solved                                                                                         | 5    | 4    | 8    |
| Under analysis                                                                                 | 3    | 1    | 2    |

Source: Vice Presidency of Shared Services and Supplies and T&D

## GRI Standards and EPM indicators

- 103-2** The management approach and its components.
- 408-1** Operations and suppliers at significant risk for incidents of child labor.
- 409-1** Operations and suppliers at significant risk for incidents of forced or compulsory labor.
- 412-3** Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening.

# Human rights management in projects under construction

Commitment to the respect for and promotion of human rights is a business activity premise in the development of all the projects conducted by the organization. The institutional approach to this matter, delimited within the institutional procedure of due diligence, the HR policy, and its supplementary guidelines, provides a basis so that each department responsible for implementing a project defines priorities and lines of action, according to the needs identified in the environment through the relationship with stakeholders.

To this end, every time the organization starts the construction of an infrastructure project that involves an intervention with significant impacts, it carries out an assessment to define specific strategies to deal with the risks identified in the territories. In the projects whose construction time is considerably extended, assessments are conducted periodically in order to keep findings up-to-date. In this type of projects, HR grievance mechanisms are also available, so that the communities can inform the organization of situations of current or potential violation in the matter.

## Management in 2017

In the development of the Ituango Hydroelectric Project, steps were taken before the Ministry of the Interior to define the process to be followed in the recognition of the indigenous community Nutabe of Orobal in 2017. We are currently awaiting the decision of the Ministry of the Interior, Directorate of Prior Consultation.

## Ituango Hydroelectric Project

The Ituango Hydroelectric Project, which is being built by EPM in northern Antioquia, is currently the largest one in terms of power generation in the country. It is located 171 km from the city of Medellín. This project is driving huge transformations in Antioquia and Colombia. From the entry into operation of the first unit in December 2018 and the final production of 2,400 megawatts in 2022 (18% of the country's total energy once it is fully operational), the territory will undergo a major change with the 79 km long reservoir—which runs from Santa Fe de Antioquia to the municipality of Ituango—and 2,720 million cubic meters of water.

In order to integrate the project into the region and responsibly manage environmental and social impacts, various strategies were developed, such as involvement in development initiatives with a gender perspective, with the aim of contributing to the prevention of gender violence; training in sexual health and sexual and reproductive health rights; and, in general, strengthening gender equality in the area of direct influence of the project.

In the cultural dimension, the characterizations carried out in the rural settlements of direct local influence were systematized, and the rural settlements subject to restoration of connectivity were socio-culturally characterized, due to the loss of the Bocas de Niquía bridge located between the municipalities of Peque and Sabanalarga.

Concerning the integral restitution of living conditions, progress was made in 98% of the agreements with families that are subject to an integral restitution in the municipalities of Sabanalarga, Peque, Valdivia, and San Andrés de Cuerquia.

Since 2015, the project has had a HR grievance mechanism, which serves the population of the 12 municipalities in the area of influence through the Community Service offices and other means such as email, EPM's building service offices in Medellín, and rural tours by field professionals. This mechanism groups the following seven service lines:

- Inclusion in the census
- Agreement and negotiation
- Negative impact on infrastructure and labor claims
- Environmental and socio-cultural impacts
- Relationship of employees and contractors with stakeholders
- Public safety / private safety / International Humanitarian Law
- Sustainable territories

## Nueva Esperanza

This project is part of the National Transmission System (NTS) and aims at increasing the capacity of power transmission, as well as the reliability of the electrical system for Bogotá, Cundinamarca, northern Tolima, Meta, and Guaviare. It includes the construction of a line of 500,000 volts, another of 230,000 volts, and a 500/230 kV transformer substation, which was awarded to EPM by the Mining and Energy Planning Unit through a call for bids.

During 2017, EPM's environmental and social management in the project made it possible to establish mutually beneficial relationships with the inhabitants in the area of influence of the project, strengthening the relationship with the various stakeholders and the construction of trusting relationships with the municipal administrations, ombudsman's offices, community action boards, social organizations, and the community in general, within the framework of compliance with the commitments established in the environmental management plan and with the environmental and corporate social responsibility policies of EPM.

All of this contributed directly to generate feasibility conditions for the project in the territory, as well as the completion of the construction process and the entry into operation of the transmission lines.

Throughout the year, six offices to address complaints from different communities impacted by the project, as well as the human rights grievance mechanism, remained operational.

## BGA line

Bello – Guayabal – Ancón is a 230 kV power transmission project that will increase the capacity of transmission of power generated in Antioquia and benefit other regions of the country offering greater reliability to the electricity system that supplies the municipalities of the Valle de Aburrá.

In 2017, the project continued with the information and community participation processes in the 30 territorial units identified in the six municipalities of influence (Copacabana, Bello, Medellín, Envigado, Sabaneta, and La Estrella). Programs and strategies were developed to share, with the different stakeholders, the programs of the environmental management plan and the technical aspects during the construction and operation of the project. The implementation of these activities designed in the environmental management plan allowed to establish a direct and continuous communication between EPM and the population within the area of influence.

## Ethnic minorities

As part of the work on human rights and in line with the provisions of its institutional policy on the matter, when the appropriate authority certifies the presence of ethnic communities in the areas where projects are being developed, EPM initiates a protocol that is regulated by law to ensure respect for their customs and cultures.

A special case regarding this matter occurred with the Ituango Hydroelectric Project. Before the start of the construction phase, a notice was received from the competent authorities certifying that there were no ethnic communities in the area. Under this scenario and within the framework of the Colombian regulations, the respective communication and negotiation processes were carried out with the communities that would be impacted, without including a prior consultation process, as there was no a collective subject to which apply it.

In 2014, when the project was already under construction, the Orobajo community in the municipality of Sabanalarga recognized itself as the Nutabe Indigenous Council and requested recognition as such from the Directorate of Indigenous Affairs, Roma community, and Minorities of the Ministry of the Interior (abbreviated DAIRM in Spanish). This community is directly impacted by the project because it is located in the reservoir filling area and consequently, it is necessary to relocate it.

Given this fact, EPM informed the DAIRM and requested the Directorate of Prior Consultation of the Ministry of the Interior to certify the presence of indigenous communities or ethnic minorities in the area of the project, specifically in the area of the reservoir (Sabalalarga – Orobajo), in order to define the process to be followed, as prior consultation can only be started when such certification is issued. In response, the Ministry of the Interior, through administrative act 657 of May 15, 2015, certified the non-presence of indigenous communities, black communities, or any other ethnic group, further specifying that, consequently, there was no need for prior consultation by the Ituango Hydroelectric Project.

In this scenario, the development of the project continued, and it was possible to negotiate with the 36 families of the community of Orobajo, object of a management measure, their transfer to the rural settlements of Ituango and the urban area of Sabanalarga. Additionally, in a meeting with the community, the families agreed with the project on the management measures to be implemented regarding their community infrastructure, which are currently being implemented.

Later, on May 19, 2017, the Ministry of the Interior issued Resolution 071 "by which the Nutabe indigenous community of Orobajo is included in the record of indigenous communities, with family units located in the Orobajo, La Loma, La Aurora, and La Meseta rural settlements in the jurisdiction of the municipality of Sabanalarga."

This event gave the members of the community of Orobajo the occasion to file a writ for protection of constitutional rights in which they claimed, among others, the right to prior consultation by the project. On June 23, 2017, the High Court of Medellín rejected this action declared as inadmissible, and then, on August 15, 2017, the Supreme Court of Justice denied the action for protection granted.

In view of this situation, on September 4, 2017, EPM sought a decision from the Directorate of Prior Consultation of the Ministry of the Interior regarding the legal effects derived from the certification 657 and resolution 071. In response, the Directorate of Prior Consultation scheduled a technical committee with EPM on September 28, 2017 and agreed to conduct a verification visit which took place between October 9 and 13, 2017. We are currently awaiting the result of the visit and the decision of the Ministry of the Interior, Directorate of Prior Consultation, determining whether a prior consultation is required or not.

Moreover, during the implementation of the expansion plan for the RTS, ESSA consulted the Ministry of the Interior, Directorate of Prior Consultation, on the presence or not of ethnic groups within the area of the project. In response, this institution certified that there is no presence of indigenous communities, minorities, and the Roma community in the area of interest of the projects.

| HR grievance - Ituango project                               |                  |              |              |              |
|--------------------------------------------------------------|------------------|--------------|--------------|--------------|
| Concept/Indicator                                            |                  | 2015         | 2016         | 2017         |
| Inclusion in the census                                      | Received         | 193          | 2,017        | 202          |
|                                                              | Cleared          | 193          | 2,017        | 202          |
| Negotiation and agreement                                    | Received         | 68           | 127          | 70           |
|                                                              | Addressed        | 68           | 127          | 70           |
| Negative impact on infrastructure and labor claims           | Received         | 60           | 47           | 17           |
|                                                              | Addressed        | 60           | 47           | 17           |
| Environmental and socio-cultural impacts                     | Received         | 66           | 245          | 4            |
|                                                              | Addressed        | 66           | 245          | 4            |
| Relationship of employees and contractors with stakeholders  | Received         | 3            | 1            | 3            |
|                                                              | Addressed        | 3            | 1            | 3            |
| Public safety/private safety/ International Humanitarian Law | Received         | 8            | -            | 2            |
|                                                              | Addressed        | 8            | -            | 2            |
| Sustainable territories                                      | Received         | 37           | 151          | 134          |
|                                                              | Addressed        | 37           | 151          | 134          |
| <b>Total</b>                                                 | <b>Received</b>  | <b>435</b>   | <b>2,588</b> | <b>432</b>   |
|                                                              | <b>Addressed</b> | <b>435</b>   | <b>2,588</b> | <b>432</b>   |
| Social management team                                       | Received         | 787          | 839          | 591          |
|                                                              | Addressed        | 787          | 839          | 553          |
| <b>Grand total</b>                                           | <b>Received</b>  | <b>1,222</b> | <b>3,427</b> | <b>1,023</b> |
|                                                              | <b>Addressed</b> | <b>1,222</b> | <b>3,427</b> | <b>985</b>   |

Source: Ituango Hydroelectric Project.

| Legal actions filed in the Ituango project    |           |        |           |        |           |        |
|-----------------------------------------------|-----------|--------|-----------|--------|-----------|--------|
| Concept/Indicator                             | 2015      |        | 2016      |        | 2017      |        |
|                                               | Addressed | Solved | Addressed | Solved | Addressed | Solved |
| Official letters                              | 12,496    | 12,496 | 865       | 865    | 548       | 527    |
| Rights to petition                            | 442       | 280    | 2,874     | 2,863  | 948       | 916    |
| Writs for protection of constitutional rights | 11        | 8      | 8         | 8      | 7         | 5      |
| Claims addressed                              | -         | -      | 7         | 2      | 31        | 6      |

Source: Vice Presidency of Projects and Engineering.

In the case of claims addressed, it should be noted that court proceedings against the project and issued by the project against third parties were included.

| Jobs created - Ituango project |       |        |        |
|--------------------------------|-------|--------|--------|
| Concept/Indicator              | 2015  | 2016   | 2017   |
| Total jobs created             | 7,984 | 10,307 | 11,210 |
| People from the region hired   | 2,644 | 2,593  | 2,457  |
| Percentage of total            | 18%   | 25%    | 22%    |

Source: Vice Presidency of Projects and Engineering.

Given the current stage of the project—the first generation unit starts operations at the end of 2018—, employee recruitment has increased. However, the installation of electromechanical equipment requires qualified labor that is not found in the region.

| Legal actions filed in the Nueva Esperanza project |           |        |           |        |           |        |
|----------------------------------------------------|-----------|--------|-----------|--------|-----------|--------|
| Concept/Indicator                                  | 2015      |        | 2016      |        | 2017      |        |
|                                                    | Addressed | Solved | Addressed | Solved | Addressed | Solved |
| Official letters                                   | 68        | 45     | 49        | 20     | 84        | 38     |
| Rights to petition                                 | 21        | 18     | 22        | 18     | 69        | 34     |
| Writs for protection of constitutional rights      | -         | -      | 1         | 1      | 1         | 1      |
| Claims addressed                                   | -         | -      | 1         | 1      | -         | -      |

Source: Vice Presidency of Projects and Engineering.

| Jobs created - Nueva Esperanza project |      |       |      |
|----------------------------------------|------|-------|------|
| Concept/Indicator                      | 2015 | 2016  | 2017 |
| Total jobs created                     | 870  | 1,509 | 60   |
| People from the region hired           | 426  | 231   | 10   |
| Percentage of total                    | 49%  | 15%   | 80%  |

Source: Vice Presidency of Projects and Engineering.

This variation is a consequence of the fact that only construction activities were developed in one of the lines and in very few tower sites and of the lack of availability of local labor in the area due to the lack of interest by the community because of the short duration of the contracts.

| Legal actions filed in the BGA project        |           |        |           |        |
|-----------------------------------------------|-----------|--------|-----------|--------|
| Concept/Indicator                             | 2016      |        | 2017      |        |
|                                               | Addressed | Solved | Addressed | Solved |
| Official letters                              | 6         | 5      | 35        | 35     |
| Rights to petition                            | 1         | 1      | 1         | 1      |
| Writs for protection of constitutional rights | -         | -      | -         | -      |
| Claims addressed                              | -         | -      | -         | -      |

Source: Vice Presidency of Projects and Engineering.

All official letters were answered, considering the impacts caused and establishing agreements for compensation due to the negative effects generated.

## GRI Standards and EPM indicators

- 411-1** Incidents of violations involving rights of indigenous peoples.
- 412-1** Operations that have been subject to human rights reviews or impact assessments.
- 413-1** Operations with local community engagement, impact assessments, and development programs.
- 414-1** New suppliers that were screened using social criteria.
- 414-2** Negative social impacts in the supply chain and actions taken.
- EU22** Number of physically or economically displaced people and the compensation granted, detailed by type of project.



## Institutional management in human rights

Although since its adhesion to the United Nations Global Compact in 2006, EPM has been committed to incorporate, in its practices, the respect for human rights, the organization has undertaken, since 2011, the task of implementing a specific work scheme on the subject, as a fundamental step towards the strengthening of its relationships with all its stakeholders. With this endeavor, the company formally assumed the transversal management of this topic, in all its business operations.

By proclaiming its institutional HR policy in 2012, the organization ratified, announced, and made explicit its commitment to the respect for human rights in its business activities and laid the formal foundations for its implementation in the entire Grupo EPM. This approach also includes the promotion of the aforementioned respect in the companies that are part of its supply chain.

Grupo EPM is currently making gradual progress in the implementation process regarding HR, with the aim of achieving, by 2019, the development of the due diligence procedure in all the national and international companies that comprise it. To this end and based on the UN Guiding Principles, it identified the following aspects as elements of management for each affiliated company: identification and prioritization of risks in HR, design and development of a management plan, internal and external training in HR in the companies, adoption of the institutional policy, implementation of a HR grievance mechanism, and a communication plan for stakeholders on the commitment and management in this regard.

The institutional management on this subject comprises the development of actions regarding respect for HR in the operations and the adoption of instruments and tools to strengthen the company's management, promote respect, and account for the progress in its implementation. In this work, the organization makes a permanent reference to the progresses made in terms of human rights and the companies worldwide, and in particular, it embraces and applies the UN Guiding Principles as a guideline in the internal approach of this matter.

### Management in 2017

Based on the guidelines of the UN Guiding Principles and in order to identify new situations that have occurred as a result of changes in the socio-political environment of the country, during 2017 EPM updated the current and potential risks regarding HR in its operations in the department of Antioquia. Based on the findings, the treatment plan to be implemented in 2018 was defined.

With the fundamental purpose of ensuring the process of due diligence in HR in its operations and by adopting the recommendations of the UN Guiding Principles, EPM updated, in 2017, its risk map in human rights to identify and assess the nature of the actual and potential adverse impacts in which it may be involved.

Seeking for a complete overview of this matter, the organization developed an identification exercise with the direct participation of the EPM Community, Customers and Users, Suppliers and Contractors, and People groups in the regions of Urabá, eastern Antioquia, and Valle de Aburrá. The field work carried out included the identification of environmental and operational vulnerabilities; the former defined as those facts and circumstances that lead to general fragility in the environment and that enable or create interest in agents to generate damages, while the latter is defined as the conditions or situations of the operation that can predispose an agent to cause damage. Based on the identified findings, actions were defined in matters related to the supply chain, safety practices, and property management to be implemented in the coming year.

Including this, there are already three risk identification works that the organization has conducted since 2011, as a starting point to define the prioritized actions in terms of HR.

In accordance with its concern for developing business practices that promote the respect for HR in the country, EPM maintained an active participation in different initiatives related to this subject. One of the most notable initiatives in this regard is the Energy Mining Committee (abbreviated CME in Spanish), an opportunity to study, reflect, and receive recommendations on how to improve the performance of both the industry and the Colombian official institutions regarding respect for HR with regard to public and private security. The company is also actively involved in Guías Colombia, an initiative consisting of companies, members of the civil population, and the government and focused on the promotion and guidance of company-environment relationships, under minimal criteria of observance and respect for human rights and the International Humanitarian Law in Colombia. In 2017, the guidelines for institutional strengthening and supply chain management were officially launched.

There is freedom of association at EPM. A total of 99.8% of the employees are members, directly or by extension, of one or more than one of the three existing labor unions. The membership percentage at Grupo EPM is 98.6%. In 2017, no discrimination claims were reported in the organization.

In the road map for the implementation of the work scheme in HR in all Grupo EPM's companies, during 2017 the affiliated companies Aguas Regionales, Aguas de Malambo, Emvarias, and Eegsa in Guatemala started the process in which the risks were identified, the treatment plans for the prioritized risks were elaborated, and the institutional human rights policy was adopted. Additionally, a conceptual standardization plan was developed on the subject, with the areas involved in the management of said risks in these companies.

Although it was planned to start the implementation of the institutional work in HR in the affiliated company Delsur in El Salvador, this was not possible due to the contractual procedures that had to be carried out. This work will be restarted at the beginning of 2018.

During the reporting period, we highlight the implementation of risk treatment plans regarding human rights in the energy affiliated companies operating in Colombia (CENS, ESSA, EDEQ, and CHEC), as well as the development of training and dissemination programs on the institutional HR policy. At ESSA, actions were taken to prevent impacts on the rights of users with special protection in the provision of energy services, the adoption of the gender equality declaration, and the inclusion of gender equality aspects in the rules for the selection process in the human talent recruitment.

As part of the capacity building, promotion, and dissemination exercise, CHEC held the Human Rights and Business forum - A commitment to more sustainable and competitive territories, which was attended by more than 180 people including suppliers, representatives of communities, colleagues, employees, and media.

| Training on human rights - Grupo EPM |              |            |
|--------------------------------------|--------------|------------|
| Employees trained in HR              | 2017         |            |
|                                      | People       | Hours      |
| ESSA                                 | 246          | 41         |
| CENS                                 | 65           | 87         |
| CHEC                                 | 315          | 43         |
| Eegsa                                | 866          | 39         |
| <b>Total</b>                         | <b>1,492</b> | <b>210</b> |

Source: Vice Presidency of Power Transmission and Distribution

For more information, see labor unions (Complementary aspect: Working environment).

## GRI Standards and EPM indicators

- 103-2** The management approach and its components.
- 406-1** Incidents of discrimination and corrective actions taken.
- 407-1** Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk.
- 411-1** Incidents of violations involving rights of indigenous peoples.
- 412-1** Operations that have been subject to human rights reviews or impact assessments.
- 412-2** Employee training on human rights policies or procedures.

## Security and human rights

Grupo EPM is aware of the importance of conducting a preventive approach in human rights as part of the development of its security strategies. Therefore and as a business principle, management actions aimed at ensuring the protection of its operations, employees, and assets are carefully developed both, in the operations carried out by private security agencies and in those operations derived from the fulfillment of agreements with public security forces in the cases in which these are established, in accordance with the regulations of the country in which the operation is carried out.

Based on its institutional HR policy, the organization is committed to *“include, in the security service contracts and agreements signed with private firms and official security organisms, explicit commitments to respect and promote human rights. In no case will the company accept the provision of these services by social actors who are outside the constitutional and legal framework.”*

As a member of the Energy Mining Committee—a Colombian multi-actor initiative—, EPM embraces and applies the provisions of the Voluntary Principles which propose a set of guiding principles for the companies regarding public security forces, private security organizations, and the civil society, in the development of its security strategies.

With the purpose of continuously monitoring the operations in its areas of influence, the company has implemented mechanisms to address complaints and claims from the communities. The management of security contractors, among other aspects, is also monitored through these mechanisms.

### Management in 2017

In 2017, EPM started preparing a protocol to regulate the institutional response actions regarding social protest events that involve *de facto* proceedings. In this way, the purpose is to provide a framework of action to the national companies of Grupo EPM for the comprehensive and timely response to these situations, articulating the actions based on the different levels of the organization, within a framework of respect for human rights.

The protocol for social protest events with *de facto* proceedings is in the process of validation and standardization with different areas of the organization that may be involved in this type of situations. It takes up concepts of the United Nations Guiding Principles for the implementation of the “Protect, Respect, and Remedy” framework, as well as the Voluntary Principles that guide business security practices in a manner that respects human rights. Also, an important part of the inputs that it incorporates in its scope are consensuses developed within the Energy Mining Committee (abbreviated CME in Spanish), an alliance between the national government, the civil society, and the private sector for the study, reflection, and recommendation of HR practices regarding operation on security issues, in which EPM has been participating.

A relevant decision in terms of security has to do with the disarmament of the security contractor personnel. As an organizational policy, the optimal scheme is determined based on the threat identified in terms of physical security and security of facilities. With this analysis, it is determined which facilities should have armed security guards. Today, 79% of security guards do not use firearms in their operations.

In the territories affected by the armed conflict, it is recommended to have unarmed security guards, in order to avoid situations that may entail impacts on the human rights of private security personnel and the community regarding the use of said elements.

During 2017, EPM signed agreements with the National Police, the National Army, and the Office of the Attorney General of Colombia, in order to receive technical-operative assistance to strengthen the protection and security conditions required in the facilities, infrastructure, and activities associated with the organization's operation. The agreements explicitly included the obligation to "be respectful of the international human rights treaties and the International Humanitarian Law signed by the Colombian government, by promoting their preservation and defense."

It is important to highlight that cooperation agreements with the Colombian public security force are signed, and that EPM has no authority or responsibility to give operational instructions to the members of the Police or the Army. However, by embracing the recommendations of the Energy Mining Committee, the organization has placed an explicit emphasis on framing the operations derived from these agreements within the permanent respect for HR. To this end, besides including specific recommendations in the agreements, the organization fosters permanent monitoring and analysis spaces with security personnel, police district commanders, and Army commanders in the areas in which the company operates. In the structure of the agreements, the personnel from the Army, the Police, and the Attorney General's Office receive permanent face-to-face training in HR with an instructor besides their training in the institutions to which they belong.

As an important aspect in the structure of the agreements with the public security force, it is stipulated that, for their development, the institutions must act under the parameters of the Constitution, the international human rights treaties, and the International Humanitarian Law signed by the Colombian government.

With regard to the private security companies, EPM demands from the service providers the strict fulfillment of the legal provisions currently in force in Colombia and, specially, of the regulation issued by the Superintendency of Private Surveillance and Security, including the background check to the personnel hired by contractors.

In 2017, the firms Colviseg, Interglobal, and G4S were hired for the provision of security and monitoring of technological media services in all the company's facilities. A total of 1,557 security guards were assigned for this purpose, and 93% of them received training on human rights during the induction process. Nevertheless, the coverage of this subject is considered to be 100% because it is a requirement for the contracting process that the security company includes training on human rights as part of the general training provided to its entire personnel and that the company performs a permanent follow-up in this regard.

With the purpose of continuously monitoring the operations in its areas of influence, the company has implemented mechanisms to address complaints and claims regarding human rights. The management of security contractors' employees is also monitored through these mechanisms. There were no complaints related to this service during the reporting period.

| Security staff trained in HR |        |       |
|------------------------------|--------|-------|
| Company                      | People | Hours |
| EPM                          | 1,460  | 9     |
| ESSA                         | 68     | 12    |
| EDEQ                         | 50     | 8     |
| CHEC                         | 109    | 304   |

**Source:** Vice Presidencies of Shared Services and Supplies and T&D.

## GRI Standards and EPM indicators

- 103-2** The management approach and its components.
- 410-1** Security personnel trained in human rights policies or procedures.
- 413-1** Operations with local community engagement, impact assessments, and development programs.
- 414-1** New suppliers that were screened using social criteria.
- 414-2** Negative social impacts in the supply chain and actions taken.
- EU22** Number of physically or economically displaced people and the compensation granted, detailed by type of project.



**Fees and prices**



**Grupo·epm®**





## Fees and prices

Fees for the services provided by Grupo EPM are regulated; therefore, a continuous management is carried out with the government and regulatory authorities so that the pricing methodologies implemented will always be fair and efficient for users. One of Grupo EPM's purposes is to have competitive fees, and therefore, the group also works on a business efficiency scheme regarding its costs and production processes.

In the case of large energy consumers, Grupo EPM offers rates to be negotiated with its customers in the commercialization margin and value of the supply components. In this case, the rest of the components are regulated (transport, distribution, and others).

### Stakeholders' vision

Customers and users identify asymmetries in the pricing issue when comparing their financial situation with the results the company disseminates.

**Electrical energy:** This is the most expensive service, especially because its relative cost in the bill is always the highest and its increase is constant; every month the cost of public services, such as street lighting, is included.

**Natural gas or pipeline network:** This service is inexpensive. The perception of a low price is based on the lower value of the bill.

**Water supply:** This service is inexpensive, both for its relative price in the bill and the perceived value.

**Sanitation:** This service is considered "expensive." This perception is based on the fact that there is no actual measurement of its use or consumption. It is "estimated" based on water consumption.

### Relevance

One of Grupo EPM's purposes is to have competitive fees. It is an aspect of high social and economic sensitivity, both for companies and for customers and users.

### Risk in sustainability associated with this topic

- Perception of imbalance between fees and prices of the services, customers' ability to pay, and profits of the company.

For more detailed information on the analysis of risks associated with material topics, see Material aspects and boundaries (General information).



## Main achievements

| Goals                                                                                                                                                                                                                                                   | Achievements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Accomplishment   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Get a DEA score for EPM higher than the current one.                                                                                                                                                                                                    | With Statute CRA 791 of 2017, the Drinking Water and Basic Sanitation Regulatory Commission (abbreviated CRA in Spanish) defined the variables to calculate the DEA model. Based on this new rule, the Water Regulation Directorate and the Vice Presidency of Water and Sanitation are negotiating with the CRA and the Ministry of Housing with the purpose of adjusting the model of said statute in relation to the theoretical concepts of its application.                                                                                                                                                                                                                                                                                                                                                            | Partial          |
| Apply pricing gradualness for EPM in the relevant markets where new charges are approved and where, due to competitiveness, the maximum charges cannot be applied. For this action, it should be noted that its application is not possible below cost. | The accomplishment of the challenge depends on the approval of distribution charges and the way of application established by the Energy and Gas Regulatory Commission (abbreviated CREG in Spanish) for pricing gradualness. Since 2015, requests for charges have been submitted to the CREG. After that, they have issued several statutes with changes and requests for new information. As for EPM, the company has met the requirements and submitted a new application. EPM is waiting for a response from the regulatory body. It is not possible to establish the date of completion of the activity.<br>In December 2017, the CREG issued new charges, which could not be applied because the National Fund of Royalties filed an appeal for reinstatement. It is expected to apply the charges in February 2018. | Partial          |
| Manage the approval of revenues for power transmission and distribution for the next five years for Grupo EPM.                                                                                                                                          | The interaction with the CREG and the government for the approval of the definitive remuneration rule continues and the approval of revenues is expected for 2018.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Not accomplished |
| Start the process of price adjustment for pruning, final disposal, and treatment of leachate in the sanitation service provided by Emvarias.                                                                                                            | <u>Pruning</u> : The collection of the new fee started on November 1, 2017.<br><u>Leachate</u> : It was submitted for the board of directors' approval in October 2017.<br><u>Final disposal</u> : It is in the stage of information collection.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Partial          |

## Challenges

| Challenge                                                                                                                                                                                                                     | Year in which it is achieved | Scope and coverage   |                   |                                        | Achievement indicator    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|-------------------|----------------------------------------|--------------------------|
|                                                                                                                                                                                                                               |                              | Territory            | Business          | Company                                |                          |
| Define the market to be requested to the CRA for the regional fee of water supply and sewerage.                                                                                                                               | 2018                         | Colombia – Antioquia | Water supply      | Empresas Públicas de Medellín - EPM    | Completion of work plan. |
| Continue the pricing modification processes for leachate treatment and final disposal.                                                                                                                                        | 2018                         | Colombia – Antioquia | Sanitation        | Empresas Varias de Medellín - Emvarias | Completion of work plan. |
| Apply pricing gradualness in the relevant markets where new charges are approved and where, due to competitiveness, the maximum charges cannot be applied. Consider that this activity should not be applied below the costs. | 2018                         | Colombia – Antioquia | Gas               | Empresas Públicas de Medellín - EPM    | Completion of work plan. |
| Request approval of Grupo EPM's Colombian affiliate revenue for the 2019-2013 regulatory period.                                                                                                                              | 2018                         | Colombia             | Electrical energy | All the companies                      | Completion of work plan. |

## GRI Standards and EPM indicators

- 103-1** Explanation of the material topic and its boundary.
- 103-2** The management approach and its components.
- 103-3** Evaluation of the management approach.
- EPM-13** Rates by service type.

## Sustainable Development Goals



## Bill - Cuéntame

The EPM bill, Cuéntame, is the company's means of invoicing the services it provides and communicating with users through a modern, clear, close and easy-to-interpret format that seeks to facilitate the understanding of the values billed and keep the community updated with information on different topics of interest.

The Cuéntame format reaches all the customers in Antioquia and consists of the public utilities bill, which is the document that contains the values invoiced and the detail of consumptions and fees of each service, and the newsletter, a contact instrument used by the company to get close to people through contents of interest to the community.

### Management in 2017

In 2017, there were no regulatory changes that impacted the behavior of fees in energy, water supply, sewerage, and gas services. The variations presented are the result, mainly, of fluctuations of some of the external variables associated with the fees, such as the consumer price index, the producer price index, the market representative rate, among others. All these were within the remuneration schemes considered by the different regulatory commissions. The sanitation service presented a regulatory change that had an impact on the fees; some additional activities were charged in the bill for this service, with the purpose of fulfilling the integrated solid waste management plan of the city of Medellín.

When interpreting the bill, it is important that users understand the concepts that affect the values billed; the main elements to be considered are the consumption units and the fees of each service, as well as the credits, consumption days, works, among other factors.

The consumption of each service depends mainly on customer's use habits. Variables such as the number of people living in the house, the technical conditions of the installations and the features of the appliances and equipment of the home modify the value of the bill, as well as the days of consumption included, since they may change in some months of the year due to variables such as the number of days and holidays.

The fees for each of the services are defined by the respective regulatory commissions through pricing formulas, their application and the different variables that are defined for each of the services. Fees may increase or decrease.

Other concepts that should also be taken into account when checking the bill values include interests due to accounts outstanding or paid after the due date, financing of consumption, works, new services or purchases made with the Somos credit, and charges for service cutoffs or reconnections. Additionally, EPM has agreements in some municipalities for billing the services provided by other entities, including sanitation, public lighting, and other products such as Vital and Red Hogar insurances.

Diverse subjects of interest were addressed in the different sections of the Cuéntame newsletter during 2017. Some of the most important ones are listed below:

- Justification of the fees in the services of energy, water supply, sewerage, and sanitation, as well as tips on savings and security topics to raise awareness about their use.
- Information about the programs of the company—such as Somos—, visits to the plants, business approaches, energy efficiency, reactive energy, a special issue celebrating 50 years of Christmas lighting, and advances of projects—such as the Aguas Claras wastewater treatment plant in Bello, Centro Parrilla, Gas without Borders, La Alpujarra's district cooling, and the aerial water piping in Urabá.
- Explanation and presentation of different offers for users such as vehicular natural gas, electric mobility, regular reviews of the gas service, online invoice, electronic collection, online frequently asked questions, among others.

Finally, thinking about the well-being derived from the enjoyment of public utilities, EPM has implemented different **purchasability** and **education** actions to make the payment process easier and to encourage an optimal use of public utilities and an understanding of the bill.

## Water supply and sewerage fees

Fees for the services provided by Grupo EPM are regulated; therefore, a continuous management is carried out with the government and regulatory authorities so that the pricing methodologies implemented will always be fair and efficient for users. One of Grupo EPM's purposes is to have competitive fees, and therefore, the group also works on a business efficiency scheme regarding its costs and production processes.

### Management in 2017

EPM participated in 2017 in different spaces established by the Colombian government to share the vision and knowledge of the group, with the purpose of contributing to the construction of standards and the institutional strengthening. The regulatory developments in which EPM participated include the decree for the provision of water supply and basic sanitation services through differential schemes in areas with special conditions, as well as the statute that established the pricing framework for small providers. On the other hand, adjustments were made to the fees to follow the criteria established by the Drinking Water and Basic Sanitation Regulatory Commission (abbreviated CRA in Spanish).

In 2017, there were events for the regulatory management process with the participation in the construction of different standards and the implementation of some changes that the regulation authorized. As for the management of new standards, Decree 1272 on differential schemes in urban areas is highlighted, which will allow the provision of services in areas with special conditions that complicated meeting the needs of customers. Another important rule was statute CRA 825, which establishes the pricing framework for small providers. This must be applied in Aguas del Oriente from July 2018.

In addition to the activities carried out, an important discussion took place with the Ministry of Housing, City, and Territory and the CRA on the methodologies for calculating the efficiency score that measures the large water and sewerage service providers—companies with over 100,000 subscribers. This did not have definitive results and dialogs will continue in 2018.

The company began the process for the authorization of incorporation of the particular cost of wastewater treatment corresponding to the future entry into operation of the Aguas Claras WWTP. This is to remunerate the WWTP operating costs at the moment it enters into operation and thus guarantee the sustainability of the provision of this service to improve the quality of the water that flows through the Medellín River.

Statute CRA 783 of 2016 was implemented, both in EPM and in its affiliates Aguas Regionales and Aguas de Malambo, to make some corrections to the fees applied in the water supply and sewerage services.

| Regular bill for Medellín corresponding to water supply |        |        |        |
|---------------------------------------------------------|--------|--------|--------|
| Use                                                     | 2015   | 2016   | 2017   |
| Stratum 1                                               | 9,274  | 11,099 | 11,992 |
| Stratum 2                                               | 13,911 | 16,648 | 17,988 |
| Stratum 3                                               | 20,286 | 24,279 | 26,232 |
| Stratum 4                                               | 23,184 | 27,747 | 29,980 |
| Stratum 5                                               | 34,776 | 41,621 | 44,970 |
| Stratum 6                                               | 37,095 | 44,396 | 47,968 |
| Commercial                                              | 34,776 | 41,621 | 44,970 |
| Industrial                                              | 30,139 | 36,072 | 38,974 |
| Official/Special                                        | 23,184 | 27,747 | 29,980 |

Source: Commercial Directorate of Water and Sanitation

Rates as of December of each year in ordinary prices, where the evolution of fees charged can be observed. To calculate the fee, the following is taken into account: the fixed charge plus the consumption charge multiplied by 12.07. The latter rate corresponds to the average consumption of EPM users in the residential sector in the Medellín interconnected system in 2017. Variations correspond to the implementation of the new pricing framework established by the CRA since July 2016 and to the indexation of the reference cost of the fees according to the increase in the consumer price index (CPI), in order to keep the value of money over time, thus allowing the recovery of costs and the provision of a quality service.

| Regular bill for Medellín corresponding to sewerage |        |        |        |
|-----------------------------------------------------|--------|--------|--------|
| Use                                                 | 2015   | 2016   | 2017   |
| Stratum 1                                           | 10,349 | 9,948  | 10,284 |
| Stratum 2                                           | 15,523 | 14,921 | 15,425 |
| Stratum 3                                           | 22,638 | 21,760 | 22,495 |
| Stratum 4                                           | 25,872 | 24,869 | 25,709 |
| Stratum 5                                           | 38,808 | 37,303 | 38,563 |
| Stratum 6                                           | 41,396 | 39,790 | 41,134 |
| Commercial                                          | 38,808 | 37,303 | 38,563 |
| Industrial                                          | 33,634 | 32,330 | 33,421 |
| Official/Special                                    | 25,872 | 24,869 | 25,709 |

Source: Commercial Directorate of Water and Sanitation

Rates as of December of each year in ordinary prices, where the evolution of the rates charged can be appreciated. To calculate the fee, the following is taken into account: the fixed charge plus the consumption charge multiplied by 11.99. The latter rate corresponds to the average consumption of EPM users in the residential sector in the Medellín interconnected system in 2017. Variations correspond to the implementation of the new pricing framework established by the CRA since July 2016 and to the indexation of the reference cost of the fees according to the increase in the consumer price index (CPI), in order to keep the value of money over time, thus allowing the recovery of costs and the provision of a quality service.

| EPM water supply - Full rate (stratum 4) |                            |       |       |       |
|------------------------------------------|----------------------------|-------|-------|-------|
| Type                                     | System                     | 2015  | 2016  | 2017  |
| Fixed charge (\$/user)                   | Medellín metropolitan area | 8,564 | 8,303 | 8,566 |
| Variable charge (\$/m <sup>3</sup> )     | Interconnected system      | 1,212 | 1,612 | 1,776 |
|                                          | Caldas system              | 1,286 | 1,414 | 1,507 |
|                                          | Barbosa system             | 1,071 | 1,178 | 1,309 |

Source: Commercial Directorate of Water and Sanitation

Rates as of December of each year in ordinary prices, where the evolution of fees charged can be observed. In 2016, a variation is observed as a result of the implementation of the pricing framework defined by the CRA in Statute CRA 688. These values correspond to the full rate, that is, they do not include the subsidies or contributions that each municipality determines.

| EPM sewerage - Full rate (stratum 4) |                            |       |       |       |
|--------------------------------------|----------------------------|-------|-------|-------|
| Type                                 | System                     | 2015  | 2016  | 2017  |
| Fixed charge (\$/user)               | Medellín metropolitan area | 3,915 | 4,458 | 4,598 |
| Variable charge (\$/m <sup>3</sup> ) | Interconnected system      | 1,831 | 1,702 | 1,761 |
|                                      | Caldas system              | 503   | 554   | 648   |
|                                      | Barbosa system             | 775   | 860   | 952   |

Source: Commercial Directorate of Water and Sanitation

Rates as of December of each year in ordinary prices, where the evolution of fees charged can be observed. In 2016, a variation is observed as a result of the implementation of the pricing framework defined by the CRA in Statute CRA 688. These values correspond to the full rate, that is, they do not include the subsidies or contributions that each municipality determines.

## Aguas Regionales – Aguas de Occidente

| Aguas Regionales water supply - Full rate (stratum 4) |                               |       |       |       |
|-------------------------------------------------------|-------------------------------|-------|-------|-------|
| Type                                                  | System                        | 2015  | 2016  | 2017  |
| Fixed charge (\$/user)                                | Santa Fe de Antioquia         | 5,807 | 7,626 | 7,868 |
|                                                       | San Jerónimo, Sopetrán, Olaya | 5,612 |       |       |
| Variable charge (\$/m <sup>3</sup> )                  | Olaya                         | 619   | 638   | 760   |
|                                                       | San Jerónimo                  | 1,651 | 1,566 | 1,619 |
|                                                       | Santa Fe de Antioquia         | 1,492 | 1,469 | 1,518 |
|                                                       | Sopetrán                      | 892   | 919   | 1,098 |

Source: Commercial Directorate of Water and Sanitation

Rates as of December of each year in ordinary prices, where the evolution of fees charged can be observed. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing the recovery of costs and the provision of a quality service. In 2016, a variation is observed as a result of the implementation of the pricing framework defined by the CRA in Statute CRA 688. These values correspond to the full rate, that is, they do not include the subsidies or contributions that each municipality determines.

| Aguas Regionales sewerage - Full rate (stratum 4) |                               |       |       |       |
|---------------------------------------------------|-------------------------------|-------|-------|-------|
| Type                                              | System                        | 2015  | 2016  | 2017  |
| Fixed charge (\$/user)                            | Santa Fe de Antioquia         | 3,434 | 4,434 | 4,574 |
|                                                   | San Jerónimo, Sopetrán, Olaya | 3,319 |       |       |
| Variable charge (\$/m <sup>3</sup> )              | Olaya                         | 236   | 246   | 350   |
|                                                   | San Jerónimo                  | 1,045 | 1,297 | 1,674 |
|                                                   | Santa Fe de Antioquia         | 961   | 1,135 | 1,166 |
|                                                   | Sopetrán                      | 485   | 493   | 643   |

Source: Commercial Directorate of Water and Sanitation

Rates as of December of each year in ordinary prices, where the evolution of fees charged can be observed. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing the recovery of costs and the provision of a quality service. In 2016, a variation is observed as a result of the implementation of the pricing framework defined by the CRA in Statute CRA 688. These values correspond to the full rate, that is, they do not include the subsidies or contributions that each municipality determines.



## Aguas Regionales

| Aguas Regionales water supply - Full rate (stratum 4) |                                    |       |       |       |
|-------------------------------------------------------|------------------------------------|-------|-------|-------|
| Type                                                  | System                             | 2015  | 2016  | 2017  |
| Fixed charge (\$/user)                                | Apartadó                           | 7,605 | 6,565 | 6,773 |
|                                                       | Carepa, Belén de Bajirá, El Reposo | 4,407 |       |       |
|                                                       | Chigorodó                          | 6,453 |       |       |
|                                                       | Mutatá                             | 7,009 |       |       |
|                                                       | Turbo                              | 8,039 |       |       |
| Variable charge (\$/m <sup>3</sup> )                  | Apartadó                           | 1,235 | 1,351 | 1,396 |
|                                                       | El Reposo                          | 1,649 |       |       |
|                                                       | Carepa                             | 641   | 666   | 739   |
|                                                       | Chigorodó                          | 1,419 | 14    | 1,501 |
|                                                       | Mutatá                             | 1,487 | 1,402 | 1,755 |
|                                                       | Bajirá                             | 1,578 |       |       |
|                                                       | Turbo                              | 1,373 | 1,571 | 1,742 |

Source: Commercial Directorate of Water and Sanitation

Rates as of December of each year in ordinary prices, where the evolution of fees charged can be observed. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing the recovery of costs and the provision of a quality service. In 2016, a variation is observed as a result of the implementation of the pricing framework defined by the CRA in Statute CRA 688. These values correspond to the full rate, that is, they do not include the subsidies or contributions that each municipality determines.

| Aguas Regionales sewerage - Full rate (stratum 4) |                |       |       |       |
|---------------------------------------------------|----------------|-------|-------|-------|
| Type                                              | System         | 2015  | 2016  | 2017  |
| Fixed charge (\$/user)                            | Apartadó       | 1,192 | 3,789 | 3,909 |
|                                                   | Carepa, Mutatá | 2,181 |       |       |
|                                                   | Chigorodó      | 4,008 |       |       |
|                                                   | Turbo          | 2,181 |       |       |

| Aguas Regionales sewerage - Full rate (stratum 4) |           |       |       |       |
|---------------------------------------------------|-----------|-------|-------|-------|
| Type                                              | System    | 2015  | 2016  | 2017  |
| Variable charge (\$/m <sup>3</sup> )              | Apartadó  | 1,361 | 1,481 | 1,633 |
|                                                   | Carepa    | 967   | 1,003 | 1,103 |
|                                                   | Chigorodó | 1,082 | 1,405 | 1,636 |
|                                                   | Mutatá    | 726   | 1,050 | 1,071 |
|                                                   | Turbo     | 925   | 1,050 | 1,086 |

Source: Commercial Directorate of Water and Sanitation

Rates as of December of each year in ordinary prices, where the evolution of fees charged can be observed. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing the recovery of costs and the provision of a quality service. In 2016, a variation is observed as a result of the implementation of the pricing framework defined by the CRA in Statute CRA 688. These values correspond to the full rate, that is, they do not include the subsidies or contributions that each municipality determines.

## Aguas de Malambo

| Aguas de Malambo water supply - Full rate (stratum 4) |       |       |       |
|-------------------------------------------------------|-------|-------|-------|
| Type / System                                         | 2015  | 2016  | 2017  |
| Fixed charge (\$/user) - Malambo                      | 3,854 | 6,480 | 6,685 |
| Variable charge (\$/m <sup>3</sup> ) - Malambo        | 1,389 | 1,541 | 1,590 |

Source: Commercial Directorate of Water and Sanitation

Rates as of December of each year in ordinary prices, where the evolution of fees charged can be observed. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing the recovery of costs and the provision of a quality service. In 2016, a variation is observed as a result of the implementation of the pricing framework defined by the CRA in Statute CRA 688. These values correspond to the full rate, that is, they do not include the subsidies or contributions that each municipality determines.

| Aguas de Malambo sewerage - Full rate (stratum 4) |       |       |       |
|---------------------------------------------------|-------|-------|-------|
| Type / System                                     | 2015  | 2016  | 2017  |
| Fixed charge (\$/user) - Malambo                  | 1,858 | 3,311 | 3,415 |
| Variable charge (\$/m <sup>3</sup> ) - Malambo    | 667   | 758   | 783   |

Source: Commercial Directorate of Water and Sanitation

Rates as of December of each year in ordinary prices, where the evolution of fees charged can be observed. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing the recovery of costs and the provision of a quality service. In 2016, a variation is observed as a result of the implementation of the pricing framework defined by the CRA in Statute CRA 688. These values correspond to the full rate, that is, they do not include the subsidies or contributions that each municipality determines.

## Aguas de Oriente

| Aguas del Oriente water supply - Full rate (stratum 4) |       |       |       |
|--------------------------------------------------------|-------|-------|-------|
| Type / System                                          | 2015  | 2016  | 2017  |
| Fixed charge (\$/user) - El Retiro                     | 5,127 | 5,000 | 5,804 |
| Variable charge (\$/m <sup>3</sup> ) - El Retiro       | 1,518 | 1,615 | 1,719 |

Source: Commercial Directorate of Water and Sanitation

Rates as of December of each year in ordinary prices, where the evolution of fees charged can be observed. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing the recovery of costs and the provision of a quality service. These values correspond to the full rate, that is, they do not include the subsidies or contributions that each municipality determines.

| Aguas del Oriente sewerage - Full rate (stratum 4) |             |       |       |       |
|----------------------------------------------------|-------------|-------|-------|-------|
| Type                                               | System      | 2015  | 2016  | 2017  |
| Fixed charge (\$/user)                             | El Retiro   | 2,261 | 2,405 | 2,559 |
| Variable charge (\$/m <sup>3</sup> )               | Los Salados | 327   | 354   | 377   |
|                                                    | El Retiro   | 205   | 224   | 239   |
|                                                    | Santa Elena | 436   | 470   | 500   |

Source: Commercial Directorate of Water and Sanitation

Rates as of December of each year in ordinary prices, where the evolution of fees charged can be observed. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing the recovery of costs and the provision of a quality service. These values correspond to the full rate, that is, they do not include the subsidies or contributions that each municipality determines.

## GRI Standards and EPM indicators

**EPM-13** Rates by service type.

## Sanitation fees

Fees for the services provided by Grupo EPM are regulated; therefore, a continuous management is carried out with the government and regulatory authorities so that the pricing methodologies implemented will always be fair and efficient for users. One of Grupo EPM's purposes is to have competitive fees, and therefore, the group also works on a business efficiency scheme regarding its costs and production processes.

### Management in 2017

EPM participated in 2017 in different spaces established by the Colombian government to share the vision and knowledge of the group, with the purpose of contributing to the construction of standards and the institutional strengthening. The regulatory developments in which EPM participated include the decree that will allow the ordinary solid waste treatment through new more eco-friendly technologies. Additionally, the company effectively included the reclaiming in the public utility fee and updated the cost of the tree pruning component in accordance with Statute CRA 783.

In 2017, there were important events for the regulatory management process with the participation in the construction of different standards and the implementation of some changes that the regulation authorized. As for the management of new standards, Decree 1272 on differential schemes in urban areas is highlighted, which will allow the provision of services in areas with special conditions that complicated meeting the needs of customers. Another important rule is Decree 1784 that provides clarity in the possibilities for the treatment of solid waste, thus opening new opportunities for sustainable management of urban solid waste. This same decree will also allow the remuneration of the treatment of biogas in landfills, which will help reduce the impact of greenhouse gases produced in the final disposal sites.

In addition, making use of Statute CRA 783, the company modified the fees associated with the tree pruning component in the sanitation service, with the purpose of complying with the obligations presented by Medellín's Integrated Solid Waste Management Plan, which seeks that the process provides the best guarantees to avoid any damage to the tree component of the city.

EPM started to include the reclaiming of ordinary solid waste in the bill as part of the provision of the sanitation service. In addition to Emvarias' incursion into this activity, it can also be noted that the company began to transfer resources to recyclers that became suppliers and complied with the legal requirements in accordance with the transition scheme defined by the regulations.

| Rates by user of sanitation ordinary service in Medellín |        |        |        |
|----------------------------------------------------------|--------|--------|--------|
| Concept / Indicator                                      | 2015   | 2016   | 2017   |
| Stratum 1                                                | 6,337  | 6,934  | 7,620  |
| Stratum 2                                                | 8,451  | 9,647  | 10,556 |
| Stratum 3                                                | 11,972 | 13,992 | 15,275 |
| Stratum 4                                                | 14,523 | 17,419 | 18,914 |
| Stratum 5                                                | 28,324 | 36,120 | 38,829 |
| Stratum 6                                                | 38,490 | 44,408 | 47,258 |
| Small commercial generators                              | 49,592 | 46,800 | 48,740 |
| Variable rate m <sup>3</sup> - Large generators          | 47,537 | 47,275 | 48,634 |

Source: Emvarias

Rates as of December of each year in ordinary prices, where the evolution of fees charged can be observed. Variations correspond to the rate indexation regarding indexes such as the consumer price index, the monthly minimum wage, the fuel oil and diesel oil index, and the levelling works index, in order to maintain the value of money over time, thus allowing the recovery of costs and the provision of a quality service. In 2016, a variation is observed as a result of the implementation of the pricing framework defined by the CRA in Statute CRA 720, which incorporated new activities.

## GRI Standards and EPM indicators

**EPM-13** Rates by service type.

## Electricity fees

Due to their nature, residential public utility fees are subject to regulations. The fees EPM charges its users are not chosen freely, but they are subject to the provisions determined by the regulatory body based on the law. In this case, that regulatory body is the Energy and Gas Regulatory Commission (abbreviated CREG in Spanish). This entity sets rules establishing the methodologies to calculate fees; they are based on efficiency criteria so that efficient costs and expenses are transferred to the consumer. In all regions where it provides its services, EPM seeks to maintain competitive fees, favoring cost recovery and corporate sustainability. In 2017, EPM performed proactive management before the regulatory body and the government, so that the rules issued for the next pricing period reflect fair and efficient fees.

The costs covered with the fees include the assets, the costs of managing, operating, and maintaining them to bring electrical energy from the energy sources to the end user, and the entire support process for customer service.

### Management in 2017

Regarding the issuance of regulatory proposals for the remuneration of power transmission and distribution in Colombia for the next pricing period, Grupo EPM submitted, directly and through the sector's guilds, observations and counterproposals aimed at achieving fair and efficient fees for users.

This year no regulatory changes took place in the commercialization, distribution, and transmission components affecting the fees.

| <b>Evolution of energy fees (COP/kWh) - EPM</b> |             |             |             |
|-------------------------------------------------|-------------|-------------|-------------|
| <b>Concept / Indicator</b>                      | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| Stratum 1                                       | 178         | 199         | 206         |
| Stratum 2                                       | 222         | 249         | 257         |
| Stratum 3                                       | 371         | 401         | 399         |
| Stratum 4                                       | 436         | 472         | 463         |
| Stratum 5                                       | 523         | 566         | 556         |
| Stratum 6                                       | 523         | 566         | 556         |
| Commercial                                      | 523         | 566         | 556         |
| Industrial                                      | 523         | 566         | 556         |

**Source:** Vice Presidency of Power Transmission and Distribution, Commercial Management

| <b>Evolution of energy fees (COP/kWh) - Central Hidroeléctrica de Caldas (CHEC)</b> |             |             |             |
|-------------------------------------------------------------------------------------|-------------|-------------|-------------|
| <b>Concept / Indicator</b>                                                          | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| Stratum 1                                                                           | 205         | 217         | 226         |
| Stratum 2                                                                           | 250         | 265         | 276         |
| Stratum 3                                                                           | 388         | 434         | 436         |
| Stratum 4                                                                           | 456         | 511         | 513         |
| Stratum 5                                                                           | 547         | 613         | 616         |
| Stratum 6                                                                           | 547         | 613         | 616         |
| Commercial                                                                          | 547         | 613         | 616         |
| Industrial                                                                          | 547         | 613         | 616         |

**Source:** Vice Presidency of Power Transmission and Distribution, Commercial Management

| <b>Evolution of energy fees (COP/kWh) - Empresa de Energía del Quindío (EDEQ)</b> |             |             |             |
|-----------------------------------------------------------------------------------|-------------|-------------|-------------|
| <b>Concept / Indicator</b>                                                        | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| Stratum 1                                                                         | 192         | 212         | 221         |
| Stratum 2                                                                         | 231         | 265         | 276         |
| Stratum 3                                                                         | 366         | 451         | 422         |
| Stratum 4                                                                         | 430         | 530         | 497         |
| Stratum 5                                                                         | 517         | 636         | 596         |
| Stratum 6                                                                         | 517         | 636         | 596         |
| Commercial                                                                        | 517         | 636         | 596         |
| Industrial                                                                        | 517         | 636         | 596         |

**Source:** Vice Presidency of Power Transmission and Distribution, Commercial Management

| <b>Evolution of energy fees (COP/kWh) - Centrales Eléctricas del Norte de Santander (CENS)</b> |             |             |             |
|------------------------------------------------------------------------------------------------|-------------|-------------|-------------|
| <b>Concept / Indicator</b>                                                                     | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| Stratum 1                                                                                      | 182         | 201         | 210         |
| Stratum 2                                                                                      | 228         | 252         | 262         |
| Stratum 3                                                                                      | 378         | 411         | 414         |
| Stratum 4                                                                                      | 445         | 484         | 487         |
| Stratum 5                                                                                      | 534         | 580         | 584         |
| Stratum 6                                                                                      | 534         | 580         | 584         |
| Commercial                                                                                     | 534         | 580         | 584         |
| Industrial                                                                                     | 534         | 580         | 584         |

**Source:** Vice Presidency of Power Transmission and Distribution, Commercial Management



| <b>Evolution of energy fees (COP/kWh) - Electrificadora de Santander (ESSA)</b> |             |             |             |
|---------------------------------------------------------------------------------|-------------|-------------|-------------|
| <b>Concept / Indicator</b>                                                      | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| Stratum 1                                                                       | 185         | 200         | 208         |
| Stratum 2                                                                       | 231         | 250         | 260         |
| Stratum 3                                                                       | 382         | 416         | 419         |
| Stratum 4                                                                       | 450         | 489         | 493         |
| Stratum 5                                                                       | 540         | 587         | 591         |
| Stratum 6                                                                       | 540         | 587         | 591         |
| Commercial                                                                      | 540         | 587         | 591         |
| Industrial                                                                      | 540         | 587         | 591         |

**Source:** Vice Presidency of Power Transmission and Distribution, Commercial Management

Criterion is property of assets from the operator at level one and applied with pricing option.

### Evolution of energy fees in affiliates outside of Colombia

| <b>Evolution of energy fees (USD/kWh) - ENSA</b> |             |             |             |
|--------------------------------------------------|-------------|-------------|-------------|
| <b>Use</b>                                       | <b>2014</b> | <b>2015</b> | <b>2016</b> |
| Residential                                      | 0.176       | 0.194       | 0.145       |
| Commercial                                       | 0.217       | 0.236       | 0.174       |
| Industrial                                       | 0.190       | 0.207       | 0.150       |

**Source:** Rates and Economic Studies Management at ENSA

| <b>Evolution of energy fees (USD/kWh) - Delsur</b> |             |             |             |
|----------------------------------------------------|-------------|-------------|-------------|
| <b>Use</b>                                         | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| Residential                                        | 0.219       | 0.178       | 0.198       |
| Commercial                                         | 0.198       | 0.158       | 0.178       |
| Industrial                                         | 0.161       | 0.126       | 0.148       |

**Source:** Rates and Economic Studies Management at ENSA

| Evolution of energy fees (USD/kWh) - Eegsa |       |       |       |
|--------------------------------------------|-------|-------|-------|
| Use                                        | 2015  | 2016  | 2017  |
| Simple low voltage                         | 0.161 | 0.147 | 0.150 |

Source: Planning, Regulation, and Control Management at Eegsa

## GRI Standards and EPM indicators

**EPM-13** Rates by service type.

## Gas fees

The fees of the residential public utility of natural gas through pipelines are regulated by the Energy and Gas Regulatory Commission (abbreviated CREG in Spanish) which, based on the definition of methodologies of specific remuneration for each activity of the natural gas value chain (production, transport, distribution, and commercialization), ensures the transference of efficient costs of investment, administration, operation, and maintenance to the users.

It is understood that every fee is of a comprehensive nature, since it involves a coverage and a level of service quality. In all regions where it provides its services, EPM seeks to maintain competitive fees, favoring cost recovery and corporate sustainability. In 2017, proactive actions were carried out before the regulatory body and the Colombian government, so that, during the next pricing period, the rules established for the remuneration of each activity reflect fair and efficient prices for users, to ensure always the financial soundness of the company and the competitiveness of the natural gas business.

The commercialization cost, collected through a fixed charge, remunerates the entire support process for customer service.

### Management in 2017

Regarding the issuance of regulatory proposals for the remuneration of retail distribution and commercialization of natural gas through pipelines for the next pricing period in Colombia, EPM submitted to the regulatory body a request of approval of temporary charges for natural gas distribution through pipelines. Moreover, directly and through the guilds Naturgas and Andesco, EPM submitted observations to the regulatory body's proposals to remunerate the retail commercialization of natural gas, focusing its recommendations on achieving efficient fees for users.

EPM worked in a responsive and proactive way before the regulatory body and the national government in the preparation of comments and suggestions regarding the development of the activities of gas wholesale commercialization and transportation, trying to ensure the reliable supply to the gas demand and an efficient pricing in these two links of the value chain.

During 2017, no regulatory changes took place in these components of the unit cost of the service provision, since the definitive methodologies have not been promulgated yet by the CREG.

| Evolution of gas fees in Valle de Aburrá (COP/m <sup>3</sup> ) - EPM |       |       |       |
|----------------------------------------------------------------------|-------|-------|-------|
| Concept / Indicator                                                  | 2015  | 2016  | 2017  |
| Stratum 1                                                            | 532   | 644   | 677   |
| Stratum 2                                                            | 664   | 802   | 843   |
| Stratum 3                                                            | 1,257 | 1,451 | 1,484 |
| Stratum 4                                                            | 1,246 | 1,439 | 1,472 |
| Estrato 5                                                            | 1,435 | 1,664 | 1,701 |
| Estrato 6                                                            | 1,380 | 1,605 | 1,641 |
| Non residential (commercial + industrial)                            | 1,164 | 1,363 | 1,392 |
| Commercial                                                           | 1,166 | 1,365 | 1,394 |
| Industrial                                                           | 1,162 | 1,360 | 1,390 |
| Vehicular natural gas                                                | 837   | 922   | 894   |

Source: Vice Presidency of Gas, Commercial Management

| Evolution of gas fees in municipalities with pipeline network outside of Valle de Aburrá (COP/m <sup>3</sup> ) - EPM |       |       |       |
|----------------------------------------------------------------------------------------------------------------------|-------|-------|-------|
| Concept / Indicator                                                                                                  | 2015  | 2016  | 2017  |
| Stratum 1                                                                                                            | 539   | 639   | 672   |
| Stratum 2                                                                                                            | 679   | 809   | 851   |
| Stratum 3                                                                                                            | 1,308 | 1,508 | 1,553 |
| Stratum 4                                                                                                            | 1,306 | 1,495 | 1,540 |
| Estrato 5                                                                                                            | 1,533 | 1,768 | 1,820 |
| Estrato 6                                                                                                            | 1,568 | 1,808 | 1,862 |
| Non residential (commercial + industrial)                                                                            | 1,310 | 1,510 | 1,552 |
| Commercial                                                                                                           | 1,309 | 1,509 | 1,554 |
| Industrial                                                                                                           | 1,312 | 1,512 | 1,551 |
| Vehicular natural gas                                                                                                | 0     | 1,154 | 1,114 |

Source: Vice Presidency of Gas, Commercial Management

| Evolution of compressed natural gas fees (COP/m <sup>3</sup> ) - EPM |       |       |       |
|----------------------------------------------------------------------|-------|-------|-------|
| Concept / Indicator                                                  | 2015  | 2016  | 2017  |
| Stratum 1                                                            | 1,964 | 2,152 | 2,281 |
| Stratum 2                                                            | 1,718 | 1,934 | 2,029 |
| Stratum 3                                                            | 1,580 | 1,775 | 1,884 |
| Stratum 4                                                            | 1,433 | 1,625 | 1,715 |
| Stratum 5                                                            | 1,369 | 1,666 | 1,710 |
| Stratum 6                                                            | 1,414 | 1,718 | 1,724 |
| Commercial                                                           | 1,019 | 1,189 | 1,170 |
| Industrial                                                           | 1,368 | 1,550 | 1,535 |
| Vehicular natural gas                                                | 1,368 | 1,550 | 1,535 |

**Source:** Vice Presidency of Gas, Commercial Management

*The increase of fees for 2017 is the result of the increase of the cost of gas in accordance with the CREG 089 of 2013 and the increase of the market representative rate. Increases also took place in the distribution charges due to the behavior of the producer price index at the end of 2015 and to the high calorific value in some months of 2016 and 2017. The variation of fees in strata one and two corresponds to the first 20 m<sup>3</sup>. The variation is not comparable since the calculation depends on the behavior of the consumer price index and the maximum percentages of allowed subsidies.*

## GRI Standards and EPM indicators

**EPM-13** Rates by service type.



**Transparency and disclosure of information for stakeholders**

**Grupo·epm®**





# Transparency and disclosure of information for stakeholders

Grupo EPM's companies develop communication, education, and engagement strategies, based on truthfulness, completeness, appropriateness, timeliness, and clarity of the information delivered concerning the company's management, in order to guarantee the stakeholders' trust.

## Stakeholders' vision

We will continue making progress especially with three stakeholder groups:

**Customers and users:** The company should continue providing them with clear, true, and timely information (active transparency), regarding changes in the environment and safety or health. Likewise, the company should use tools that allow it to keep a clear record of the number of users or customers that had been benefited through the delivery of this type of information.

**Suppliers and contractors:** It is important that the company has an appropriate tool to keep record of the impact related to the delivery of information on its policies or programs addressed to suppliers.

**Grupo EPM people:** The mechanisms to encourage and get to know the suggestions of employees should be implemented again. This is a good practice in terms of dialog and engagement with these stakeholders.

## Relevance

Transparency and disclosure of information provides opportunities to strengthen stakeholders' trust and allow them to make decisions that benefit them in the social, environmental, and economic aspects.

This reduces corruption and extra costs, development barriers, and reputational risks.

## Risk in sustainability associated with this topic

- Lack of reliable, pertinent, timely, and clear information for the decision making of stakeholders and the society in general.

For more detailed information on the analysis of risks associated with material topics, see Material aspects and boundaries (General information).

## Main achievements

| Goals                                                                                                                                | Achievements                                                                                                                                                                                                                                                                                                                                                                            | Accomplishment |
|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Prepare, write, and disclose the group's code of ethics.                                                                             | Approval of the code of ethics in the board of directors, adherence of the affiliates, and launching in Grupo EPM.                                                                                                                                                                                                                                                                      | Total          |
| Define the organizational structure for the group's ethical management, with its responsibilities.                                   | Design and implementation of the organizational structure for the ethical management: Ethics Committee, Ethical Agents and Promoters of Ethical Practices, definition of responsibilities, formalization of General Management by decree, taking as reference the ethical management model for governmental entities defined by the United States Agency for International Development. | Total          |
| Develop actions for the integrated change management in Grupo EPM.                                                                   | Ethical assessment 2017.<br>Dissemination of principles and values of the business group.<br>Introductory course in ethical principles and values for the new employees who started working between July and November 2017.<br>18 workshops and 53 ethical interviews covering 3,053 people in EPM.                                                                                     | Partial        |
| Make the progress required in Open Governance, Services, Management and Safety, and Information Privacy at the Colombian affiliates. | Strengthening of the offer of online procedures and services, the citizen participation scheme called EPM Te Escucha (EPM Listens to You), the IT management in line with the IT architecture of the Colombian government, and the implementation of critical recommendations derived from the assessment consultancy in security and cybersecurity 2016.                               | Total          |



## Challenges

| Challenge                                                                                                                                                   | Year in which it is achieved | Scope and coverage  |                    |                   | Achievement indicator                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------|--------------------|-------------------|------------------------------------------------|
|                                                                                                                                                             |                              | Territory           | Business           | Company           |                                                |
| Actively participate in the collective action of the electricity sector against corruption.                                                                 | 2018                         | Colombia            | Electrical energy  | All the companies | (Actions developed / Actions projected) * 100% |
| Contribute to the implementation of the UNODC program Towards Integrity: An Alliance between the Public and Private Sectors against Corruption in Colombia. | 2018                         | Colombia            | All the businesses | EPM               | (Actions developed / Actions projected) * 100% |
| Define and develop a plan for the implementation of the ethical management in Grupo EPM.                                                                    | 2018                         | All the territories | All the businesses | All the companies | (Actions developed / Actions projected) * 100% |
| Adopt the new proposed scheme for the management of the Digital Government policy.                                                                          | 2018                         | Colombia            | All the businesses | All the companies | (Actions developed / Actions projected) * 100% |
| Verify compliance with the data protection baseline for Grupo EPM affiliates in Colombia and define plans to close the gaps.                                | 2018                         | Colombia            | All the businesses | All the companies | (Actions developed / Actions projected) * 100% |
| Implement an integrating mechanism in the ML / TF risk prevention front for the affiliates of Grupo EPM in Colombia.                                        | 2018                         | Colombia            | All the businesses | All the companies | (Actions developed / Actions projected) * 100% |

| Challenge                                                                                                                       | Year in which it is achieved | Scope and coverage |                    |                   | Achievement indicator                          |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|--------------------|-------------------|------------------------------------------------|
|                                                                                                                                 |                              | Territory          | Business           | Company           |                                                |
| Refine the mechanism to analyze risks and impacts of alerts (reputations, ML/FT, fraud/corruption/ bribery, legal, and others). | 2018                         | Colombia           | All the businesses | All the companies | (Actions developed / Actions projected) * 100% |
| Comply with the legal framework associated with the Anti-corruption and Citizen Services Plan.                                  | 2018                         | Colombia           | All the businesses | All the companies | (Actions developed / Actions projected) * 100% |
| Adopt the Transparency Statement and the Conflict of Interest Statement at the Colombian energy affiliates.                     | 2018                         | Colombia           | Electrical energy  | All the companies | (Actions developed / Actions projected) * 100% |
| Adopt the group's Code of Business Conduct at the Colombian energy and water and sanitation affiliates.                         | 2018                         | Colombia           | All the businesses | All the companies | (Actions developed / Actions projected) * 100% |

## GRI Standards and EPM indicators

- 103-1** Explanation of the material topic and its boundary.
- 103-2** The management approach and its components.
- 103-3** Evaluation of the management approach.
- 205-2** Communication and training about anti-corruption policies and procedures.
- EPM-14** Transparencia por Colombia indicator.
- EPM-15** External communication strategy and mechanisms.

## Sustainable Development Goals



## Information for stakeholders

Grupo EPM shares its business management with its stakeholders directly and through mass media as one of the mechanisms to strengthen and transcend the informative purpose and strengthen the relationships with stakeholders.

To achieve this, the following are the main mechanisms:

**Press management:** It is the management of information and relations with mass media based on respect, equity, transparency, opportunity, truthfulness, openness, and service vocation, in accordance with EPM's Communication Policy and EPM's Manual of Relations with Mass Media.

**External media:** This media's management aims at external audiences and stakeholders in the areas of influence of each of the companies of Grupo EPM, with relevant information on the interaction with the territory, matters related to public utilities, and as a promotional mechanism of communities and customers.

**Social media:** They offer permanent communication with virtual communities through conversations in the interest of stakeholders aimed at strengthening relationships and transparency, as well as building sustainability and protecting reputation.

**Sustainability Report:** It is a balanced report on the economic, social, and environmental management of the previous year, and its positive or negative impact on society. It is a corporate sustainability management tool to identify gaps, risks, and opportunities, as well as prioritize actions and keep track on the initiatives reported.

**Public accountability:** It is carried out annually in order to inform the main achievements and challenges of the corporate management and its alignment with stakeholders, based on the contents collected in the Sustainability Report.

### Management in 2017

- Camino al Barrio (On the Way to the Neighborhood), a broadcast television program sponsored by EPM, changed its live format to prerecorded format in 2017, acquiring a new narration that allows space and time changes without losing interaction with the audience.
- Effective press management to highlight important issues of the organization, as well as support and training to executives on press and media management aspects.
- In 2017, followers of all EPM's social media increased.

## Press management

- 15 press releases to the public opinion.
- 1,151 requests from journalists addressed.
- 25 press conferences organized, summoned to, and held.
- Six meetings with the media and and opinion leaders.
- 15 visits to strategic projects with the media.
- Support in 38 face-to-face interviews with EPM's CEO.
- Support to the organization's spokesperson for the crisis periods, training of spokesperson, communication strategy, and advice to the organization's executives on press and media management aspects.
- 306 newsletters on strategic issues of the group.

## External media

- **Estamos Ahí newsletter:** Monthly publication aimed at opinion leaders and large customers, focused on innovation, social and environmental responsibility, and the overall business dynamics. Nine editions were published between February and October 2017.
- **Línea Directa newsletter:** Quarterly publication that had four editions in 2017, with topics such as success stories shared by our customers, promotion of new eco-friendly offers, and information of interest about new EPM infrastructure projects, among others.
- **Camino al Barrio:** Broadcast television program sponsored by EPM, which makes the communities of Medellín visible. In 2017, its live format changed to prerecorded format. 31 chapters were broadcasted addressing issues such as the Ituango hydroelectric plant, Centro Parrilla, Parque Arví, and visits to neighborhoods and communities.
- **EPM radio:** This collaborative radio model between EPM and the community generates interaction with its users regarding the services, programs, projects, and products offered by Grupo EPM.

In 2017, Aló EPM had 243 broadcasts in its daily format for Valle de Aburrá.

In its weekly format it had 22 broadcasts for 61 radio stations in the regions.

The program Aló EPM en la hidroeléctrica: con vos (Aló EPM at the Hydroelectric Plant: with You), broadcast weekly on 8 radio stations in the northern and western Antioquia, had 52 broadcasts.

## Social media

In 2017, followers of all EPM's social media increased:

- Facebook: 124,641. 14.06% growth.
- Twitter: 53,958. 11.53% growth.
- Instagram: 16,222. 89.95% growth.
- Youtube: 6,736. 54.63% growth.

The main topics addressed on social media include the construction of territories, commercial offers, progress in works, and EPM Te Escucha (EPM Listens to You).

In addition, an engagement strategy was implemented with social media influencers to bring EPM closer to opinion leaders in digital media and thus strengthen the ties of closeness with the community and increase its knowledge regarding the matters managed by EPM.

## Sustainability Report

Most of Grupo EPM's companies prepare their sustainability reports using the GRI methodology. As for EPM, the GRI Standards are used, which enables organizations to prepare their sustainability report regardless of their size, industry, or location. Moreover, this report is in line with the International Integrated Reporting Council (IIRC) framework.

Grupo EPM's report preparation is a continuous organizational learning process evolving permanently. Content and quality principles established by GRI are applied.

Grupo EPM's reports are presented at shareholders' meetings and to employees and the community in different spaces for dialog, such as meetings with community action boards and municipal councils.

The Global Reporting Initiative (GRI) is an organization that promotes the use of sustainability reports so that organizations can become more sustainable and contribute to sustainable development.  
[www.globalreporting.org/information/about-gri/Pages/default.aspx](http://www.globalreporting.org/information/about-gri/Pages/default.aspx)

For more information on the Sustainability Report, see Report profile (General information).

The management and sustainability reports of Grupo EPM's affiliates are available at each company's website.

## Public accountability

The annual public accountability event took place on March 17, 2017 and was broadcast on the institutional program Aló EPM on Radio Paisa and La Esquina Radio stations. It addressed the management carried out by Grupo EPM during 2016.

Around 300 people attended the event and around 48,000 people—number of Radio Paisa listeners according to the general study of media in 2017—were potential listeners to it. (La Esquina Radio data is not available).

The event streamed for the internal audience. 250 Grupo EPM's employees connected.

## GRI Standards and EPM indicators

**EPM-15** External communication strategy and mechanisms.

## Transparency practices

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To preserve trust and credibility of all its stakeholders, Grupo EPM incorporates in its management clear rules regarding organizational culture standards and principles, and its mechanisms for engagement, interaction, and verification of objective and goal accomplishment.

This set of actions raise stakeholders' awareness so that they become responsible, engage, get to know and exercise their rights and obligations, actively promote integrity, and fight corruption.

Grupo EPM aims to be a corporate benchmark in transparency practices by including international standards in its compliance management, actively participating in collective actions that generate high impact on society, and managing best transparency practices.

The current practices are:

**Ethics and transparency mechanisms:** They are practices and tools implemented to minimize the materialization of risk situations related to fraud, corruption, bribery, money laundering, and terrorist financing. Some of them are Code of Ethics, Manual of Business Behavior, Corporate Governance Manual, Code of Conduct for Suppliers and Contractors, and Zero Tolerance Policy to Fraud, Corruption, and Bribery, as well as the ethics hotline report channel Transparent Contact.

**Transparency assessment:** Grupo EPM's companies participate voluntarily in the assessment of transparency practices of the public utility providers in Colombia, in order to identify their degree of development and encourage them to implement improvement plans and actions in their activities, recognize the companies committed to ethical and transparent relationships with their stakeholders, and foster compliance with international standards.

**Online governance:** The purpose of this strategy is to improve efficiency, promote transparency, encourage citizens' collaboration and participation, strengthen their management with stakeholders, and favor the conditions to enhance the competitiveness of institutions engaged with the Colombian government, using the information and communications technology as leverage.

## Management in 2017

- In the fight against corruption, EPM is a strategic ally of the United Nations Office on Drugs and Crime (UNODC). Along with its energy affiliates in Colombia, EPM participates in the collective action of the electricity sector.
- On July 26, 2017, the business group formally introduced the Code of Ethics as a result of a collective construction that began in 2016 and involved employees of EPM and its affiliates.
- Grupo EPM obtained the seal of excellence by the online governance strategy in the Open Government category and strengthened the citizen participation initiative EPM Te Escucha (EPM Listens to You) for the interaction and dialog with stakeholders.
- A toll-free number was created in the Transparent Contact ethics hotline, as well as a mobile application for IOS and Android.

## Ethics and transparency mechanisms

EPM and its energy affiliates in Colombia are part of the collective action of the electricity sector for the fight against corruption, promotion of free competition, and prevention of ML / FT, complying with the agreed activities and engaging annually and actively to the Forum of Ethics of the Electricity Sector. Likewise, the company contributes to and is one of strategic partners of the UNODC program Towards Integrity: An Alliance between the Public and Private Sectors against Corruption in Colombia.

In 2017, EPM developed internal actions to strengthen the ethical management and promote practices such as employees' appropriate behaviors, compliance with standards, investigation of ethical cases, and proper risk management.

Moreover, the preparation of the Code of Ethics for the entire business group was completed through a collective construction that involved employees of EPM and its affiliates. The code was approved by the board of directors and was adopted by the affiliates. It was officially published on July 26, 2017.

EPM also developed actions to boost and strengthen the ethical management, which include the design of an organizational structure to support the ethical management at the corporate level, the redesign of the Ethics Committee, and the definition and activation of ethical agents and promoters of ethical practices.

A toll-free number was created in the Transparent Contact ethics hotline for all the territories where the group's companies operate and a mobile application to report incidents and make relevant cases public was developed for IOS and Android.

Furthermore, with the purpose of strengthening trust in the company-employee and company-citizenship relationships and as a mechanism to strengthen transparency in the work of Grupo EPM, the Transparency Statement—voluntary initiative accepted by 91% of collaborators—was established.

The affiliates outside of Colombia, including Max Seguros, adopted the Policy of Zero Tolerance to Fraud, Corruption, and Bribery. In this way, all the companies of Grupo EPM have adopted this policy.

EPM assessed the ethical climate for the second time. 5,904 employees took part in the assessment, in which the model proposed by the United States Agency for International Development was applied. In addition, EPM incorporated the personal data protection policy into the recruitment process and updated the habeas data procedure.

As part of the management with the supply chain, Grupo EPM published and updated the Code of Conduct for Suppliers and Contractors, containing chapters related to the prevention of corruption and topics such as antitrust and fair competition.

Likewise, EPM and its energy affiliates encouraged the participation of suppliers and contractors in the workshop led by the United Nations held in May, with the purpose of promoting transparency and integrity and formulating joint strategies for prevention and fight against corruption. Moreover, the company permanently invited suppliers to participate in the workshops of the Global Compact lecture, which addresses issues related to the environment, labor rights, human rights, and anti-corruption.

## Transparency assessment

The Business Transparency Assessment is conducted by Corporación Transparencia por Colombia since 2008 with a group of companies including EPM and its affiliates in Colombia. It is conducted periodically and independently, assessing the degree of transparency and business ethics of governance and the management of companies.

In 2017, Grupo EPM did not participate in the assessment, since the minimum number of companies participating in the public utility sector was not achieved in order to make the assessment viable. However, the goals set for 2020 are still on.

The main booster of the improvement opportunities proposed for 2017 was the progress in the definition of the elements for the ethical management, which is evidenced in the ethical climate assessments, in the management of the Ethics Committee, and in the adoption of a Code of Ethics by the group.



| Transparency assessment goals 2018-2020 - Grupo EPM and affiliates |       |       |       |
|--------------------------------------------------------------------|-------|-------|-------|
| Company / Indicator                                                | 2018  | 2019  | 2020  |
| Grupo EPM                                                          | 82.98 | 87.87 | 92.77 |
| EPM parent company                                                 | 90.63 | 93.75 | 96.88 |
| Empresa de Aguas del Oriente Antioqueño                            | 71.75 | 79.50 | 87.25 |
| Aguas Nacionales                                                   | 84.73 | 88.15 | 91.58 |
| Aguas Regionales                                                   | 70.33 | 78.55 | 86.78 |
| Aguas de Malambo                                                   | 62.00 | 73.00 | 84.00 |
| Emvarias                                                           | 77.23 | 83.15 | 89.08 |
| CHEC                                                               | 89.08 | 92.05 | 95.03 |
| EDEQ                                                               | 86.53 | 90.35 | 94.18 |
| ESSA                                                               | 83.45 | 88.30 | 93.15 |
| CENS                                                               | 84.65 | 89.10 | 93.55 |

**Source:** Vice Presidency of Corporate Auditing

## Online governance

The following specific achievements stand out for 2017:

In the services component, EPM strengthened the offer of online procedures and services, such as the payment of the digital bill and the filling out and submission of electronic forms.

In the Open Government component, the company updated the information on its website and strengthened the citizen participation scheme EPM Te Escucha (EPM Listens to You), covering several convergence and digital reach exercises. In terms of accountability, the organization implemented the citizen participation plan in digital media, complementing with the Sustainability Report. As for the open data scheme, EPM strengthened its offer and quality and, finally, launched the second version of Innóvate (Innovate Yourself), an open innovation initiative.

In the management component, the company strengthened IT management, use, application, and institutional capabilities, in line with the IT architecture requirements established by the Colombian government.

In the information security component, the organization implemented recommendations from the security and cybersecurity diagnostic consultancy conducted in 2016 and approved the formulation of the security and cybersecurity project for the entire group.

| Progress in the implementation of online governance - Energy affiliates |     |      |      |      |      |
|-------------------------------------------------------------------------|-----|------|------|------|------|
| Online governance component / Index (%)                                 | EPM | CHEC | ESSA | CENS | EDEQ |
| ICT for services                                                        | 98  | 85   | 92   | 65   | 100  |
| ICT for open governance                                                 | 100 | 99.5 | 90   | 31   | 93.5 |
| ICT for management                                                      | 93  | 57   | 64   | 77   | 45.1 |
| Information security and privacy                                        | 60  | 58   | 70   | 53   | 38   |

Source: Vice Presidency of Communications and Corporate Relations

## GRI Standards and EPM indicators

**205-2** Communication and training about anti-corruption policies and procedures.

**EPM-14** Transparencia por Colombia indicator.



**Complementary  
aspects**



**Grupo·epm®**





**Corporate  
Citizenship**



**Grupo·epm<sup>®</sup>**





## Corporate citizenship

The social responsibility model of Grupo EPM promotes actions that are directly related to its role as public utility provider. Moreover, either directly or through Fundación EPM, it takes actions that meet the needs of the communities in the areas where it operates: social investment, programs, and contributions to public policies that are part of the concept of corporate citizenship. This way, it promotes, among communities, their development, inclusion in the urban dynamics, economic activities, and access to information and cultural, educational, social, job, and financial opportunities.

### GRI Standards and EPM indicators

- 103-1** Explanation of the material topic and its boundary.
- 103-2** The management approach and its components.
- 203-1** Infrastructure investments and services supported.
- 203-2** Significant indirect economic impacts.

# Christmas lighting

Christmas lighting in the regions where Grupo EPM operates is one of the most important activities to get closer to its stakeholders, since it offers recreational spaces to the communities it serves and improves inclusion of all socioeconomic strata. It is a unique opportunity in which inhabitants and visitors enjoy, live, and go down the illuminated localities during the most festive season of the year.

For almost five decades, EPM has conceived, designed, produced, and assembled the Christmas lighting in Medellín, thus contributing to boost the economy of the city. This situation is replicated in other regions of the country by the energy affiliated companies.

Since 2013, the Christmas lighting has extended its boundaries to be appreciated in other regions of Colombia thanks to the "Turn on the joy" contest, which provides winning municipalities with a set of pieces for their Christmas lighting, based on the proposals submitted by the community.

From the garlands with yellow, blue, green, red, and white bulbs that adorned Medellín in the 1960s, EPM's Christmas lighting has evolved through the installation of large and colorful figures hand-woven by artisans, most of them single mothers.

Technology has also evolved. With the aim of making a rational use of energy, LED bulbs are used nowadays, which consume less energy and, in some areas of the city, solar panel pilots are being implemented.

## Management in 2017

- In 2017, EPM bet on a more innovative lighting with new sensory and digital interactive systems.
- 2017 was the year in which CHEC illuminated more urban and rural points (24 in Manizales and 9 in rural settlements of the municipality).

In 2017, the budget for the EPM Christmas lighting was increased in relation to the previous year. The investment made it possible to extend the light route coverage, thus illuminating 13 new sites of Medellín, for a total of 40 points illuminated.

This year, the company bet on a more innovative lighting for Medellín, with new sensorial and digital interactive systems for users, such as the video mapping, the interactive invitation box, dance floor and swings, among others.

EPM celebrated the 5th edition of the “Turn on the joy” contest. The winning municipalities of the Christmas lighting contest in Antioquia were: Angelópolis, Arboletes, Barbosa, Buriticá, Cañasgordas, Caracolí, Cisneros, Guadalupe, La Pintada, La Unión, Peque, Salgar, San Pedro de los Milagros, and Santa Rosa de Osos.

CENS also held this contest, which allowed administrations and inhabitants of the participating municipalities of Norte de Santander to commit themselves and participate actively in the Christmas lighting.

The Christmas lighting present in Manizales and other municipalities thanks to the affiliate CHEC continues to be a benchmark of high social impact that has involved the participation of the community.

| EPM Christmas lighting          |        |        |        |
|---------------------------------|--------|--------|--------|
| Impact                          | 2015   | 2016   | 2017   |
| Direct jobs                     | 602    | 310    | 286    |
| Indirect jobs (street peddlers) | 350    | 350    | 350    |
| Beneficiaries                   | 1,350  | 1,350  | 1,350  |
| Investment (million COP)        | 18,500 | 12,000 | 15,000 |

Source: Vice Presidency of Power Transmission and Distribution

| Christmas lighting - Energy affiliates |           |           |           |
|----------------------------------------|-----------|-----------|-----------|
| Impact                                 | 2015      | 2016      | 2017      |
| Direct jobs                            | 435       | 549       | 478       |
| Indirect jobs (street peddlers)        | 161       | 454       | 460       |
| Beneficiaries                          | 2,744,961 | 2,373,169 | 2,430,627 |
| Investment (million COP)               | 5,044     | 7,879     | 8,863     |

Source: Vice Presidency of Power Transmission and Distribution

## GRI Standards and EPM indicators

**203-2** Significant indirect economic impacts.

## Events and sponsorships

Grupo EPM develops and supports events and open advertising engagements that strategically aim at generating, supporting, and strengthening its relationships with the stakeholders, to seek the development of the regions where it operates and enhance the business group's reputation.

With a sense of social responsibility, the organization supports local and regional initiatives that have a positive impact on the community and deal with issues such as conservation of natural resources, and other technical matters that favor the sustainable culture, safe use of public utilities, and proper use of recyclable materials. It also contributes to human, economic, cultural, social, and environmental development processes in the territories where the group's companies operate.

EPM's Corporate Identity Management is in charge of working with the entities that lead the events on subjects relevant to the company. As a sponsor, EPM makes a significant contribution to the creation of spaces for knowledge, recreation, environmental education, culture, and sports.

### Management in 2017

In 2017, we managed to generate more spaces of contact and engagement with our stakeholders at the local, regional, and national levels, spreading key messages for our organization such as sustainability, environmental conservation, innovation, and safe and efficient use of public utilities, for the development of the territories where we are present.

Within the EPM's management in 2017, there are some remarkable actions:

- Engagement and participation events for the community, such as the "We are there for you" program and the information and awareness activities in Ituango.
- Protection of the archaeological heritage and conservation of the environment, such as the archaeological sample of the Centro Parrilla project and the United for Water program.
- Innovation in the use of alternative energies with participation in events such as ExpoSolar and the Solar Circuit fair.
- Advertising engagement in local and national events such as the Flowers Marathon, the Book and Culture Festival, and the Flowers' Festival, among others.
- Emvarias developed pedagogical and recreational strategies for the Buen Comienzo Festival, which received more than 80,000 people. Moreover, it provided cleaning services at important city events such as the Flowers' Festival.
- Regarding direct sponsorships, it participated in the Senior Citizens' Week and the celebration of the 20 years of its local allied channel, Telemedellín.
- Aguas del Oriente sponsored cultural and sporting events, activities aimed at the elderly, and municipal prevention campaigns.



- Aguas Regionales participated in educational and environment preservation events.
- Aguas de Malambo was present at sporting, educational, and cultural events in the municipality.
- For its part, CHEC designed and developed a software to request sponsorships that optimized its management.
- CENS, in turn, took part in cultural activities of the city, such as festivals and educational, sporting, and artistic events.
- Adasa participated in major cultural, sporting, and environmental events such as the Zicosur Antofagasta International Book Festival (FILZIC) and the Zicosur International Theater Festival (FITZA).

| EPM events            |      |      |      |
|-----------------------|------|------|------|
| Number of events      | 2015 | 2016 | 2017 |
| Commercial events     | 112  | 145  | 111  |
| Non-commercial events | 127  | 49   | 363  |

Source: Corporate Identity Management

| Investment in EPM events    |       |       |       |
|-----------------------------|-------|-------|-------|
| Contributions (million COP) | 2015  | 2016  | 2017  |
| Commercial events           | 710   | 1,635 | 706   |
| Non-commercial events       | 2,157 | 1,298 | 3,149 |

Source: Corporate Identity Management

| EPM sponsorships       |      |      |      |
|------------------------|------|------|------|
| Number of sponsorships | 2015 | 2016 | 2017 |
| Local (Medellín only)  | 68   | 69   | 61   |
| National               | 36   | 41   | 46   |
| International          | 1    | 0    | 0    |

Source: Corporate Identity Management

| <b>Investment in EPM sponsorships</b> |             |             |             |
|---------------------------------------|-------------|-------------|-------------|
| <b>Contributions (million COP)</b>    | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| Local (Medellín only)                 | 6,548       | 7,153       | 4,022       |
| National                              | 1,140       | 3,187       | 3,867       |
| International                         | 33          | 0           | 0           |

Source: Corporate Identity Management

| <b>Total events - Energy affiliates</b> |             |             |             |
|-----------------------------------------|-------------|-------------|-------------|
| <b>Energy affiliates in Colombia</b>    | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| Number of events held                   | 184         | 27          | 118         |
| Contributions for events (million COP)  | 3,348       | 1,473       | 1,404       |
| Coverage (people benefited)             | 1,418,974   | 34,944      | 52,095      |

Source: Vice Presidency of Power Transmission and Distribution

| <b>Total sponsorships - Energy affiliates</b> |             |             |             |
|-----------------------------------------------|-------------|-------------|-------------|
| <b>Number of sponsorships</b>                 | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| Local                                         | 42          | 149         | 149         |
| National                                      | 19          | 2           | 3           |

Source: Vice Presidency of Power Transmission and Distribution

| <b>Investment in sponsorships - Energy affiliates</b> |             |             |             |
|-------------------------------------------------------|-------------|-------------|-------------|
| <b>Contributions (million COP)</b>                    | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| Local                                                 | 1,743       | 2,150       | 1,758       |
| National                                              | 424         | 18          | 12          |

Source: Vice Presidency of Power Transmission and Distribution

| Total events - Water and sanitation affiliates |        |         |         |
|------------------------------------------------|--------|---------|---------|
| Total water and sanitation affiliates          | 2015   | 2016    | 2017    |
| Number of events held                          | 163    | 119     | 169     |
| Contributions for events (million COP)         | 418    | 500     | 423     |
| Coverage (people benefited)                    | 12,600 | 124,760 | 806,686 |

Source: Vice Presidency of Water Supply and Sanitation

| Total sponsorships - Water and sanitation affiliates |      |      |      |
|------------------------------------------------------|------|------|------|
| Figures of water and sanitation affiliates           | 2015 | 2016 | 2017 |
| Number of local sponsorships                         | 65   | 59   | 152  |
| Contributions local sponsorships (million COP)       | 297  | 191  | 265  |

Source: Vice Presidency of Water Supply and Sanitation

## GRI Standards and EPM indicators

**203-2** Significant indirect economic impacts.

# Fundación EPM

Fundación EPM was created in 2000 to contribute to the development of competitive and sustainable territories in the current and potential areas of influence of Grupo EPM, with programs and projects of social and environmental management that favor the conservation of natural resources and the proper use of public utilities.

In this sense, the foundation takes actions aimed at strengthening closeness to communities, improving coverage of residential public utilities, and promoting care for the environment; thus contributing to fulfill the corporate strategy of Grupo EPM.

As part of its work, it manages initiatives such as Water for Education, Articulated Life Units (UVAs), the EPM Water Museum, the EPM Library, the Library Network, the Deseos Park and House of Music, the Nueva Esperanza Project and the Environmental Management, Monitoring, and Follow-up Plans of Nueva Esperanza, the Malambo Source of Life Fund, and the projects of Customers and Community Training, Basic Sanitation, and Social Appropriation of ICT.

## Management in 2017

In 2017, a social investment of COP 28.48 billion was made in six departments of the country, thus meeting the objectives set for the year and exceeding the goal of beneficiaries of programs and projects by more than 5 million. The resources of the foundation come from contributions made by EPM, affiliated companies, strategic allies, as well as own resources.

During 2017, Fundación EPM strengthened its commitment to expand coverage in Colombia, reaching five departments with the Water for Education, Education for Water program. During this period, 84 water purification solutions were installed, benefiting 7,042 people.

With the institutional support of EPM, in 2017 the foundation put into operation two UVAs, to reach a total of 14 UVAs operating this year. More than 1,500,000 people in Valle de Aburrá were impacted with the promotion of education, culture, protection of natural resources, and efficient use of public utilities in these spaces.

Also, in coordination with EPM, the foundation started to operate the EPM Customers and Community Training project, carrying out educational activities for the efficient, safe, and responsible use of the residential public utilities provided by the company. This project reached 15,547 people in eight territories of the department of Antioquia.

In addition, with the programs EPM Water Museum, EPM Library, Deseos Park and House of Music, and Library Network, Fundación EPM carried out different educational, cultural, and integration activities to promote access to knowledge and use of ICT to contribute to the sustainable development of the territories.

For its part, the Antioquia's Higher Education Scholarship Fund benefited 10,808 young people from the department, who received a scholarship covering tuition fees and maintenance expenses in order to carry out studies of higher education, at a technical, technological, and university level. This program is developed in alliance with the Antioquia Governor's Office and the Antioquia Development Institute (IDEA).

The foundation's initiatives provide the space for citizens to get together, contributing to improve the relationship with the communities and to position the institutional message of Grupo EPM.

| Fundación EPM                                  |           |           |           |
|------------------------------------------------|-----------|-----------|-----------|
| Program/ Beneficiaries                         | 2015      | 2016      | 2017      |
| Museo del Agua EPM                             | 96,439    | 106,711   | 99,574    |
| Parque de los Deseos y Casa de la Música       | 1,973,094 | 2,342,565 | 1,891,617 |
| Library Network                                | 916,074   | 1,045,901 | 1,013,502 |
| Biblioteca EPM                                 | 487,190   | 537,903   | 508,811   |
| Water for Education, Education for Water       | 17,891    | 14,341    | 7,042     |
| Antioquia's Higher Education Scholarship Fund* | 3,239     | 937       | 595       |
| UVAs (14) **                                   | 446,860   | 1,390,803 | 1,743,881 |
| TIC Appropriation                              | 106,383   | 69,441    | 7,497     |
| Customers and Community Training               | N.A.      | N.A.      | 15,547    |
| Malambo Source of Life Fund                    | N.A.      | 4,232     | 4,297     |
| Basic Sanitation                               | N.A.      | N.A.      | 703       |

Source: Fundación EPM / Vice Presidency of Communications and Corporate Relations

\* The figures of the Antioquia's Higher Education Scholarship Fund correspond to contributions by Fundación EPM and the Antioquia Governor's Office. Figures corresponding to the Municipality of Medellín were not reported in order to avoid duplications on the report. The Alliance receives an investment of COP 118.53 billion, of which COP 22 billion correspond to contributions by Fundación EPM. These resources are administered by the Corporation for the Promotion of Higher Education.

\*\*The information provided on the resources invested corresponds only to the educational and cultural components of the foundation.

## GRI Standards and EPM indicators

**203-1** Infrastructure investments and services supported.

## City projects

Grupo EPM, aware of its role in the construction of a fair, educated, and sustainable society, defines projects with a visible impact on the quality of life of the inhabitants in the territories where it operates.

### Management in 2017

The affiliate Aguas Regionales developed the Piragua Empresarial (Corporate Canoe) project, a voluntary initiative to contribute to the protection of the region's water resource, benefiting 165 families in 19 municipalities where Grupo EPM is present.

After putting into operation two new Articulated Life Units (UVA) in 2017, a total of 14 UVAs are now in operation during this year, reaching more than one million five hundred people in Valle de Aburrá with the promotion of education, culture, protection of natural resources, and efficient use of public utilities.

Likewise, the affiliate CENS invested COP 556 million in urban spaces, which generated seven direct jobs and benefited 3,700 people.

As for ESSA, the affiliate invested COP 1.25 billion in urban spaces.

Moreover, the affiliate ENSA in Panama maintains a cooperation agreement with the Fundación Pro Niños de Darién (Foundation for Children from Darién) organization; this agreement includes the participation in social support sessions and activities, such as donations. In addition, it continues supporting financially Fundación Centro de Ciencias y Arte EXPLORA (EXPLORA Science and Art Center Foundation) that promotes saving habits and safe use of energy in children.

The affiliate Adasa, in Chile, signed an agreement with the municipality of Antofagasta to build summer recreational facilities and thus improve the city's community infrastructure with an investment of COP 281 million, which generated 20 direct jobs and benefited 150,000 people.

| Management of urban spaces owned by EPM                                      |         |         |         |
|------------------------------------------------------------------------------|---------|---------|---------|
| Impact                                                                       | 2015    | 2016    | 2017    |
| Visitor assistance service – city guides (million COP)                       | 367     | 386     | 387     |
| Maintenance of Parque de los Pies Descalzos and Puerta Urbana (million COP)* | 144     | 90      | 243     |
| Cost of toilet units for community use (million COP)                         | 288     | 290     | 289     |
| Number of visitors to Parque de los Pies Descalzos and Puerta Urbana         | 634,140 | 335,544 | 281,024 |

Source: Vice Presidency of Shared Services and Supplies / Administrative Support Management / Fundación EPM

\* For 2017, the reported figure of COP 243 million is the sum of the maintenance of civil works (COP 122 million) plus the maintenance related to cleaning activities (COP 121 million). The latter had not been reported in previous years, and, in 2017, it is considered for the first time in the maintenance costs of Parque de los Pies Descalzos and Puerta Urbana, which justifies the increase of over 100% in 2017 compared to 2016.

| Plots delivered in free lease by EPM to the community |       |       |       |
|-------------------------------------------------------|-------|-------|-------|
| Indicator                                             | 2015  | 2016  | 2017  |
| Free-lease contracts signed                           | 74    | 64    | 63    |
| Benefit for the community (million COP)*              | 2,380 | 2,804 | 3,528 |

Source: Vice Presidency of Shared Services and Supplies

\* The reported value is the estimated percentage of profitability of assets in free lease, which is equivalent to the cost of leasing that commodataries do not pay, since this type of contracts are legally free of charge.

## GRI Standards and EPM indicators

**203-2** Significant indirect economic impacts.



**Development  
and innovation**



**Grupo·epm®**







## Development and innovation

EPM grows with people through innovation and operation efficiency to contribute to the development of sustainable and competitive territories. Therefore, it conceptualizes, incubates, and escalates options to develop new businesses, and identifies and transfers new technologies to strengthen current businesses while optimizing the existing processes. Innovation is a skill whose purpose is to develop new or better solutions and new scalable, replicable, and sustainable businesses that, framed by EPM's strategy, contribute to it and the BHAG of the group in its social, environmental, and economic components.

The portfolio of development and innovation initiatives and projects is aligned with the following areas or axes of innovation that allow organizing and balancing efforts so that the business group continues moving forward, stays up-to-date on competitive dynamics, and is in line with the trends in technological development, customer expectations, and opportunities of the environment. In this way, the company seeks to serve the people, creating new products and services that meet the needs of its customers and generating added value for stakeholders and for Grupo EPM.



- Optimize and make profitable.
- Renewable energy, energy efficiency, storage, valorization, and use of solid waste, among others.
- Network and measurement intelligence, incorporation of digital technologies and applications.
- Non-conventional treatments of water, reuse, and distributed solutions.
- Efficient, comprehensive, and sustainable solutions, the internet of things, relationships with stakeholders.
- Infrastructure for electric mobility, new gas applications, and incorporation of technologies to offer new solutions to current and new markets.

## Main achievements

| Goals                                                                                                                                                                                                                                                                                                                                                                                                                                                | Achievements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Accomplishment |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Implement EPM's Innovate Yourself program in the areas of influence of Medellín and Manizales.                                                                                                                                                                                                                                                                                                                                                       | EPM's Innovate Yourself program oriented to the university audience was implemented with the participation of young people from the departments of Antioquia and Caldas. Its first training cycle included workshops of competitive intelligence and technology surveillance, design thinking, project tuning, and pitch with the 70 teams classified. Upon the evaluation of these projects, the best 20 were selected to carry out workshops of innovation and business models, effective presentations, and prototype creation. In November, the final event took place with the presentation of the five finalist projects and the selection of the winner team. | Total          |
| Expand the commercialization of EPM Green Energy to large regulated customers and customers in the residential sector.                                                                                                                                                                                                                                                                                                                               | The procedure for the sale and billing of I-REC by JDE, the contract draft for the sale, and the redemption procedure of the certificates acquired were developed. I-REC was sold to some customers of the energy regulated market. The value proposition for the residential sector is pending definition, which will be addressed in 2018.                                                                                                                                                                                                                                                                                                                         | Partial        |
| Organize efficient, comprehensive, and sustainable solutions (ECSS) with the aim of consolidating EPM's service offer for the society of the future. The objective is to leverage economic and social transformations in the territories in which we operate, to offer customers the comprehensive management of their energy, water, and solid waste needs, integrating solutions such as renewable energy, water reuse, and solid waste recycling. | In partnership with Comfama, the conceptual designs of the ECSS were organized to apply them as a case of study in any of its recreational headquarters and in a housing project led by this fund.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Partial        |

## Challenges

| Challenge                                                                                                                                                                                                                                                                                                        | Year in which it is achieved | Scope and coverage   |            |                                     | Achievement indicator   | Achievements and progress in the management                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|------------|-------------------------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                  |                              | Territory            | Business   | Company                             |                         |                                                                                                                                                                                                                                                                                                    |
| Develop the Power Generation in Water Supply Pipelines pilot project.                                                                                                                                                                                                                                            | 2020                         | Colombia - Antioquia | Water      | Empresas Públicas de Medellín - EPM | Scheduled / implemented | In 2017, the contracting process for the development of the pilot was carried out. In 2018, it is expected to have the design and to define the site and the equipment for power generation in water supply pipelines. The equipment will be acquired, installed, and put into operations in 2019. |
| Develop the telemetry pilot project in Sucre, small town of the municipality of Olaya, Antioquia.                                                                                                                                                                                                                | 2019                         | Colombia - Antioquia | Water      | Empresas Públicas de Medellín - EPM | Scheduled / implemented | In 2017, the contracting process for the development of the pilot was carried out. In 2018, the telemetry equipment of the pilot will be installed and put into operations. In 2019, the pilot will be monitored, controlled online, and diagnosed.                                                |
| Solution of use of biosolids:<br>Conduct market research, potential market exploration, and definition of opportunities; define business model associated, according to the defined strategy; create conceptual design of fertilizer production plant (100–120 TPD); and estimate budget for the implementation. | 2018                         | Colombia - Antioquia | Sanitation | Empresas Públicas de Medellín - EPM | Scheduled / implemented |                                                                                                                                                                                                                                                                                                    |

| Challenge                                                                                                                                                                                            | Year in which it is achieved | Scope and coverage   |                    |                                     | Achievement indicator                                                                                                                                                                                               | Achievements and progress in the management |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|--------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|                                                                                                                                                                                                      |                              | Territory            | Business           | Company                             |                                                                                                                                                                                                                     |                                             |
| Thermal coating project:<br>Achieve the technology assimilation in the power generation business assets, doing the required coating with the APS equipment and the robot.                            | 2018                         | Colombia - Antioquia | Electrical energy  | Empresas Públicas de Medellín - EPM | Scheduled / implemented                                                                                                                                                                                             |                                             |
| ST+i Fair program:<br>Develop the Solar Circuit; EPM Innovate Yourself; and Science, Technology, and Innovation Fair projects.                                                                       | 2018                         | Colombia - Antioquia | All the businesses | Empresas Públicas de Medellín - EPM | EPM Innovate Yourself: Have three cities engaged in 2018.<br>ST+i Fair: Be present in 25 municipalities of Antioquia.<br>EPM Solar Circuit: Engage 25 municipalities and develop one stretch of water on the track. |                                             |
| Organize project of 1,500 electric taxis for the next three years.                                                                                                                                   | 2018                         | Colombia - Antioquia | Electrical energy  | Empresas Públicas de Medellín - EPM | 500 electric taxis rolling in 2018.                                                                                                                                                                                 |                                             |
| Continue the adaptation and operation of five quick charging equipment and 15 slow charging equipment to charge electric cars.                                                                       | 2018                         | Colombia - Antioquia | Electrical energy  | Empresas Públicas de Medellín - EPM |                                                                                                                                                                                                                     |                                             |
| Receive the electric articulated bus and acquire the standard electric bus in agreement with the municipality of Medellín, Metroplús, Metro de Medellín, and Área Metropolitana del Valle de Aburrá. | 2018                         | Colombia - Antioquia | Electrical energy  | Empresas Públicas de Medellín - EPM | Put articulated bus in operation and award standard bus.                                                                                                                                                            |                                             |

| Challenge                                                                                                                                                                                                                 | Year in which it is achieved | Scope and coverage   |                   |                                         | Achievement indicator           | Achievements and progress in the management |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|-------------------|-----------------------------------------|---------------------------------|---------------------------------------------|
|                                                                                                                                                                                                                           |                              | Territory            | Business          | Company                                 |                                 |                                             |
| Promote the conversion of more vehicles to vehicular natural gas.                                                                                                                                                         | 2018                         | Colombia - Antioquia | Gas               | Empresas Públicas de Medellín - EPM     | 3,000 vehicles converted.       |                                             |
| Build two water purification plants in rural educational institutions.                                                                                                                                                    | 2018                         | Colombia - Quindío   | Water             | Empresa de Energía del Quindío - EDEQ   | Two plants built.               |                                             |
| Promote the use of the electric and electric-assisted bicycle, financed through the Social Financing Program (SFP) for students of associate degree programs. Install a public charging station in the city of Manizales. | 2018                         | Colombia - Caldas    | Electrical energy | Central Hidroeléctrica de Caldas - CHEC | Charging station installed.     |                                             |
| Implement the model of electric data in EPM's infrastructure.                                                                                                                                                             | 2018                         | Colombia - Caldas    | Electrical energy | Central Hidroeléctrica de Caldas - CHEC | Model of data 100% implemented. |                                             |
| Connect substations and localities according to the allocated budget.                                                                                                                                                     | 2018                         | Colombia - Caldas    | Electrical energy | Central Hidroeléctrica de Caldas - CHEC |                                 |                                             |
| Loss management project: Improve the effectivity of the loss indicator in the operation of processes by implementing automatic interfaces, models with statistical inference, and quality data management.                | 2018                         | Colombia - Caldas    | Electrical energy | Central Hidroeléctrica de Caldas - CHEC |                                 |                                             |

| Challenge                                                                                                                                                                     | Year in which it is achieved | Scope and coverage   |                   |                                         | Achievement indicator                                         | Achievements and progress in the management |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|-------------------|-----------------------------------------|---------------------------------------------------------------|---------------------------------------------|
|                                                                                                                                                                               |                              | Territory            | Business          | Company                                 |                                                               |                                             |
| Develop 14 critical maneuvers in the maintenance management of aerial and underground networks.                                                                               | 2018                         | Colombia - Caldas    | Electrical energy | Central Hidroeléctrica de Caldas - CHEC | (No. of maneuvers scheduled / No. of maneuvers developed)*100 |                                             |
| Define the business model to sell CHEC's laboratory services to external customers and offer the services.                                                                    | 2018                         | Colombia - Caldas    | Electrical energy | Central Hidroeléctrica de Caldas - CHEC |                                                               |                                             |
| Put into commercial operation three semi-quick and one quick charging eco-stations and define the internal charging offer.                                                    | 2018                         | Colombia - Quindío   | Electrical energy | Empresa de Energía del Quindío - EDEQ   | Eco-stations in operation.                                    |                                             |
| Define phase-based projects, focused on energy efficiency, smart measurement, and how to solve the quality issue associated with the vegetation interfering with the network. | 2018                         | Colombia - Quindío   | Electrical energy | Empresa de Energía del Quindío - EDEQ   | Projects defined.                                             |                                             |
| Acquire two electric vehicles that will be part of ESSA's fleet and install three public charging stations.                                                                   | 2018                         | Colombia - Santander | Electrical energy | Electrificadora de Santander - ESSA     | Public charging stations installed.                           |                                             |
| Smart measurement: Integrate readings to the SAC for billing and portfolio management and real-time display of consumptions on the ESSA app.                                  | 2018                         | Colombia - Santander | Electrical energy | Electrificadora de Santander - ESSA     |                                                               |                                             |

| Challenge                                                                                  | Year in which it is achieved | Scope and coverage   |                    |                                     | Achievement indicator                                     | Achievements and progress in the management |
|--------------------------------------------------------------------------------------------|------------------------------|----------------------|--------------------|-------------------------------------|-----------------------------------------------------------|---------------------------------------------|
|                                                                                            |                              | Territory            | Business           | Company                             |                                                           |                                             |
| Smart measurement: Integrate with SCADA - Energis and new developments on the application. | 2018                         | Colombia - Santander | Electrical energy  | Electrificadora de Santander - ESSA |                                                           |                                             |
| Implement the Innovation Management System (IMS) and obtain the NTC 5801 certification.    | 2019                         | Colombia - Santander | All the businesses | Electrificadora de Santander - ESSA | ESSA's IMS certification in accordance with the NTC 5801. |                                             |
| Install smart measurement for all large customers (demanding over 100 kW).                 | 2019                         | Panama               | Electrical energy  | Elektra Noreste - ENSA              | Percentage of large customers with smart measurement.     |                                             |
| Sustainable mobility: Install charging points in the city of Panama.                       | 2019                         | Panama               | Electrical energy  | Elektra Noreste - ENSA              | Charging points installed.                                |                                             |

## GRI Standards and EPM indicators

- 103-1** Explanation of the material topic and its boundary.
- 103-2** The management approach and its components.
- 103-3** Evaluation of the management approach.

# Technological developments

In order to optimize the infrastructure performance in the different operating processes and be at the forefront of technological advances, EPM develops research, development, and innovation projects aimed at the production of new materials, products, and devices, and at the establishment and improvement of new processes, systems, and services.

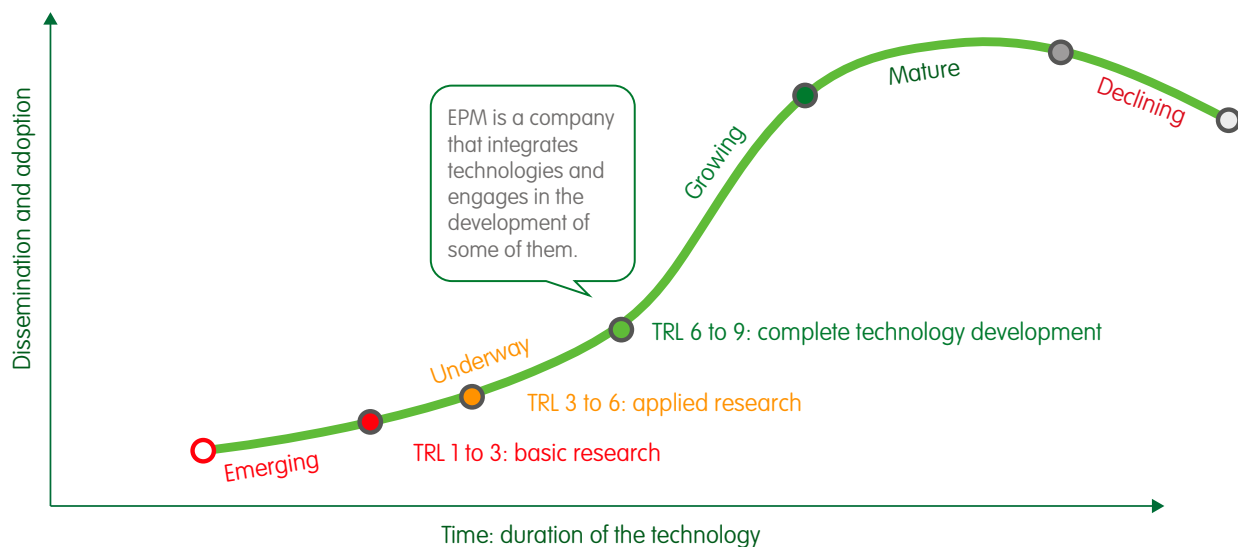
These developments strengthen the skills of the company's operation staff and help the research groups of the universities involved to generate new knowledge. In addition, important inventions of intellectual property protection can be obtained or possible business developments can be achieved and introduced into the market, which is an innovation.

To achieve the corporate goals and provide new solutions, EPM bets on the integration of technologies and participates in the development of some of them.

The following graphic shows the moment when EPM intervenes.

## Technology progress:

Observable dynamic of the development of knowledge bases and physical resources. New ways to achieve corporate goals or human needs.



Source: Adapted from Tidd & Bessant, 2012; Calacanis, J., 2017.



## Management in 2017

EPM completed the project of commercial validation of the Rotor Diagnostic System (RDS) technology and signed, along with the National University of Colombia in Medellín and the company A-MAQ, a licensing contract. A-MAQ will be in charge of commercializing this technological development, useful for hydraulic power plants.

It is worth mentioning that it is the first time that this university establishes a licensing contract, which makes this achievement more relevant for EPM as a public company.

Grupo EPM's energy companies work day-to-day to find solutions for smart measurement, increase efficiency, and reduce losses, through the implementation of technological development projects such as the (MPLS) telecommunications network expansion project to interconnect the networks of all the national affiliates.

As for EPM's water business, the leachate treatment system technology installed at the La Pradera landfill is unique in the country. It has a membrane bioreactor infrastructure, high-efficiency ultrafiltration system that improves the leachate effluent conditions to the Medellín river.

In energy, two technological development projects implemented with the National University of Colombia in Medellín were completed, and the staff was trained in them. It is expected to replicate the results to find opportunities to turn them into new businesses.

1. Commercial validation of the RDS technology.
2. Thermal barrier coatings.

Moreover, progress was made in the development of the Smart Terminal Board Holder with the installation of equipment to detect non-technical losses, identify irregularities in electrical installations, and locate the place of the fault.

CHEC worked on loss management through process automation, pilot tests for the use of units in regulated and nonregulated markets, support in data analysis to create multivariate classification models, and training in data analysis.

ESSA prepared and published the smart measurement technical standard and made progress in the Picadilly pilot project.

ENSA, affiliate in Panama, made progress in smart measurement for the large customer segment and in a study to reduce the consumption of its public lighting system.

For its part, Eegsa's Metric laboratory, in Guatemala, obtained the ISO 17025 certification for loss reduction and control and energy efficiency in consumption and collection.

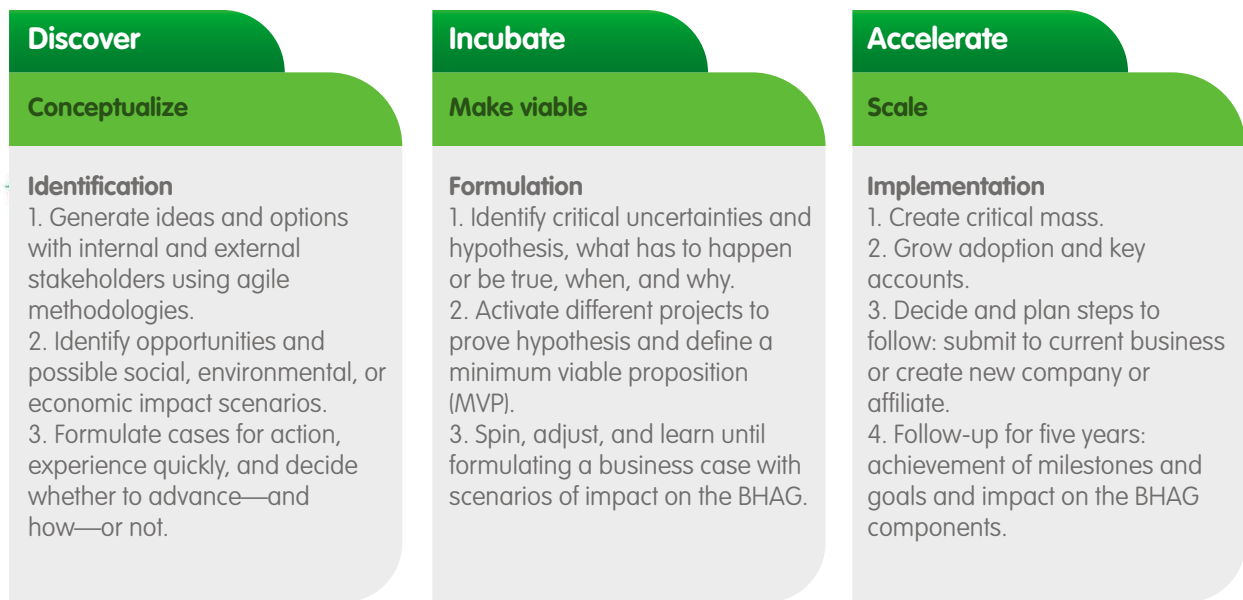
| Investments in technological development                                    |      |       |       |
|-----------------------------------------------------------------------------|------|-------|-------|
| Name of the project / million COP                                           | 2015 | 2016  | 2017  |
| Thermal barrier coatings                                                    | 492  | 399   | 178   |
| Smart Terminal Board Holder                                                 | 508  | 464   | 393   |
| RDS prototype development and validation                                    | 165  | 116   | 0     |
| Electric data model (EDM) unification - CHEC                                | 0    | 0     | 80    |
| Loss management - CHEC                                                      | 0    | 31    | 728   |
| Software development to make training possible using 3D environments - CHEC | 0    | 0     | 71    |
| Smart measurement - ESSA                                                    | 0    | 0     | 77    |
| Smart measurement for large customers - ENSA                                | 0    | 3,182 | 2,762 |
| Metric laboratory certification - Eegsa                                     | 0    | 107   | 0     |

**Source:** EPM's and energy affiliates' Development and Innovation Management

The table shows EPM's and some of its affiliates' technological development projects underway and the amount invested.

# Innovation management

EPM has come a long way in the management of innovation, understanding it as the process required from the conception of innovative ideas, following with the prioritization, execution of pilot projects, and the validation of prototypes, until getting to solutions, upgrades, or new products or services required by our customers. This can be seen in the innovation model figure that begins with discovery, continues with incubation, and ends with acceleration and scaling of these new options.



Development and integration of technologies

Development of the value proposition and business model

**Source:** Adapted from O'Connor et al., 2008. Tidd & Bessant, 2010. Ries, E., 2017. Tendayi, V. et al., 2017.

We recognize the importance of strengthening innovation processes, keeping a continuous learning, and having a network of allies to identify people, entrepreneurs, entities, and companies, in order to create alliances for a collaborative work, get possible acquisitions through the Equity Fund for Innovation and Entrepreneurship, and establish a win-win relationship that enables the construction of the required solutions.

## Management in 2017

EPM requested and obtained the recognition by Colciencias for its Research, Development, and Innovation Unit, through Statute 0235 of March 2017, which enables it to apply independently to different calls promoted by this entity. This was possible thanks to the dedication in innovation management, the allocation of significant resources, the organizational structure that includes innovations in its processes, the work with entrepreneurs, and the possibility of having an equity fund for innovation and entrepreneurship, as well as the demonstration of tangible results that have generated benefits to the organization.

In 2017, EPM diagnosed innovation management in its affiliates, identified challenges and goals, and enabled a network with the purpose of incorporating best practices and winning synergies. Several companies participated in the call of the AMBAR Award for research and development in the electric power industry. The 3D Interactive Training in Power Distribution Networks project submitted by CHEC was the winner. The Smart Terminal Board Holder project presented by EPM was also recognized.

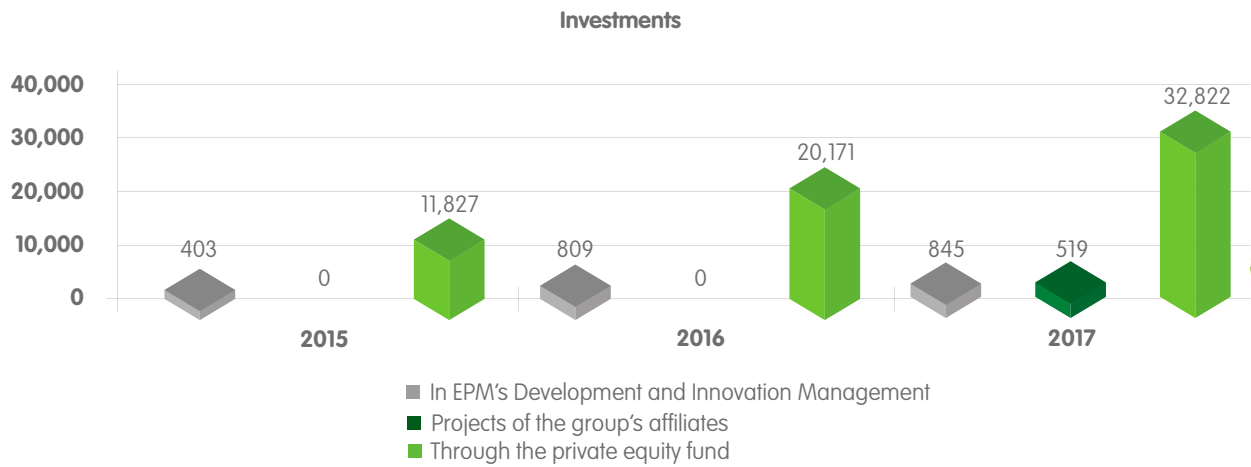
Interactions with the academic community took place in the University-Industry-Government Committee, with the purpose of strengthening relationships, discussing initiatives, and specifying projects. With the intention of strengthening the engagement with the young audience, the following projects were developed:

- EPM Innovate Yourself: University audience from Medellín and Manizales participated submitting projects in thematic lines related to residential public utilities.
- ST+i Fair: 420 school projects were submitted, with the support of 305 teachers and the participation of over 1,500 primary and high school students from Antioquia.
- EPM Solar Circuit: 169 students from 13 municipalities of Antioquia participated; Federico Sierra High School and La Enseñanza High School were the winners.

EPM's corporate Innovation and Entrepreneurship Fund acquired shares in Reciclados Industriales de Colombia, leading company in the production of sustainable construction materials made from rubble or construction and demolition waste (CDW), and Kingo Energy, company providing the electrical energy service with prepaid solar systems.

EDEQ formulated energy efficiency projects for small merchants and green economy alternatives.

From Panama, the ENSA Innovates initiative makes progress in the Héroes de Verdad (True Heroes) platform, where collaborators express their ideas and may receive recognitions and rewards.



**Source:** Vice Presidency of Strategy and Growth - Development and Innovation Management

The bar chart shows the investments per projects developed by EPM and the group's affiliates, including the investments by the Innovation and Entrepreneurship Private Equity Fund.

# Urban solid waste management

Solid waste in Medellín and its metropolitan area requires a planned management to design solutions according to the characteristics and conditions of the region. These solutions must be socially inclusive and sustainable from the health, environmental, and economic perspectives.

This is how Grupo EPM develops a long-term strategic vision, prioritizing the projects that shall be developed in the different horizons of time, in order to achieve a comprehensive and efficient management; offering solutions to handle ordinary, special, and (short-term) hazardous solid waste; and taking the business model to a level that encourages minimization from the source and promotes the reuse, recycling, and recovery of materials and energy from waste. The purpose of this management is to maximize the use of by-products and achieve their efficient management for the benefit of everyone.

## Management in 2017


Grupo EPM worked on the definition of the strategic planning for the waste business and on how EPM and its affiliates will participate in said line of business. The efforts focused on making the current operation of Emvarias profitable and evaluating alternatives for growth in different lines of waste management. Likewise, the company participated in the construction of the public policy, the regulatory development, and the regulatory framework that will make possible to provide a higher-level service.

EPM made progress in the evaluation of different waste assessment options for Medellín and Valle de Aburrá.

As for the management of biosolids generated from waste water treatment, EPM expects to define the technical, economic, and environmental feasibility of producing fertilizers, as an alternative solution for the current problems with this by-product, and the analysis of this solution as a new business option. In 2018, it is expected to conduct the market research, define opportunities, and consider scenarios for the feasibility of this solution.

In 2017, Emvarias made progress in the Puntos Naranja (Orange Points) initiative, both fixed and mobile points, as an option for the disposal of special or dangerous waste including used batteries, streetlights, expired medicines, pesticidal containers, computers and peripherals, and used cooking oil. Such points have made the selective collection of recyclable materials (plastic, paper, cardboard, glass, and metal) easier and are important to raise users' awareness about the proper handling of solid waste.

Currently, there are three mobile Puntos Naranjas in the city and it is expected to install eight more in 2018. The goal is to duplicate the number of mobile Puntos Naranjas by 2022, that is 24. The implementation of one fixed Punto Naranja in Medellín downtown is scheduled for 2018.



✦ The agreements with post-consumption waste managers of Grupo ASEI, Grupo Retorna, and Ecogras were important accomplishments for the proper management of this waste.

Grupo EPM invested COP 846 million during 2017.



## Sustainable mobility

Efficiency and sustainability in transport and mobility continue being priority subjects in world urban planning, since they have a direct impact on the quality of life of human beings. In Medellín, emissions from vehicles and motorbikes are one of the main causes of air pollution. For instance, there are today critical problems of accumulation of particles such as PM 2.5 (pollutant that, for its size, goes directly to the respiratory and circulatory systems).

To counteract this situation and favor a sustainable mobility, EPM makes progress in both internal actions and city solutions, through public-private alliances. These alliances contribute to the development of electric mobility and the strengthening of vehicular natural gas as cleaner transport alternatives, thus obtaining environmental benefits and reducing noise emissions and atmospheric pollutants.

The program's success depends on the joint commitment of government institutions, transportation companies, automobile manufacturers, charging station suppliers, other public utilities companies, and the community.

### Management in 2017

In 2017, most companies of Grupo EPM took on a leading role in boosting and promoting sustainable mobility. They made investments, created partnerships, and developed projects that are in process of implementation with the support of the national and local government and other stakeholders. Their contribution is then to the construction of more sustainable and more eco-friendly territories for those who inhabit them.

Grupo EPM works on the promotion of sustainable urban electric mobility and the introduction of electric vehicles in its operations and areas of influence. EPM, EDEQ, CHEC, ESSA, Eegsa, and Delsur have been encouraging the transition and widespread use of electric mobility in private and public transportation.

EPM's Air Quality Program has a sustainable mobility plan as a strategic line that works on the modernization of the company's vehicles and promotes the implementation of technologies, electric energy, and natural gas as clean energies.

As part of said plan, EPM promotes teleworking (currently with 223 public servants), cycling-to-work campaigns (428 public servants enrolled), and flexible staggered shifts; in addition, the organization transports public servants to EPM's building on the first electric bus and raises staff's awareness about the Naturalmente (Naturally) program on the air quality and the situation of atmospheric pollution.

Furthermore, the company installed ten public charging stations to supply electric vehicles and financed the purchase of its customer's bicycles and electric motorcycles with the Somos credit card.

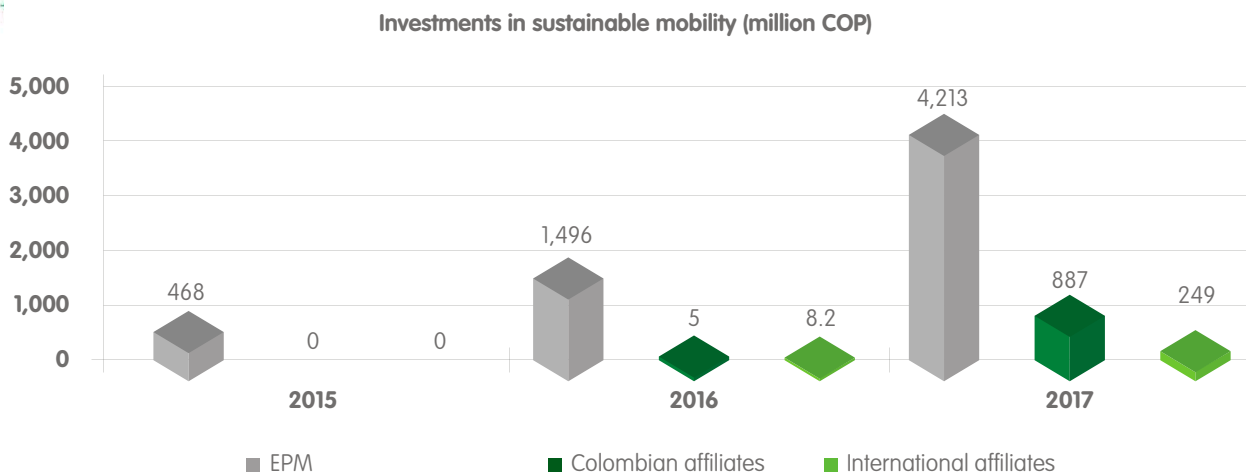


The year ended with 200 electric vehicles distributed among individuals, companies, Localiza, and brands offering electric vehicles.

In the gas business, EPM had several accomplishments. Vehicular natural gas (VNG) systems were installed in around 54,000 vehicles. Natural gas vehicles were exempt from vehicle restriction in peak hours. Passes were granted to make access to the product easier. A total of 427 buses of the mass transit system and 62 Emvarias garbage compactor vehicles started operating with natural gas. The company opened 15 natural gas service stations in Valle de Aburrá—including one for the Integrated Transport System of Valle de Aburrá (SITVA) and one for garbage compactor vehicles—and another one in Apartadó, the only one in Urabá.

CHEC installed one charging station and created the national group made up of energy affiliates of the group to encourage and launch the Sustainable Electric Mobility Ecosystem in 2019.

Finally, ENSA signed strategic alliances with the Technological University of Panama and Build Your Dreams.



*Investments by EPM and the group's affiliates.*

*A significant increase is observed in 2017 as a result of the investment in VNG passes, the replacement of obsolete trucks for 20 biofuel trucks, and the installation of public charging stations.*

## Nonconventional solutions for the water business

They are nontraditional solutions related to other forms of catching water for human consumption, use of new water sources, new structures, new materials, other practices of removing microorganisms or pollutants, among others; the objective is to implement sustainable solutions through the use of the most appropriate technology, considering investment, operation, and maintenance costs and the environmental conditions where they will be implemented.

### Management in 2017

In 2017, EPM continued the aerial water piping pilot project, with the purpose of providing the residential public utility of water in areas with unfavorable conditions for underground piping. In addition, it continued putting into operation a biosolid (thermal drying) treatment plant at the Bello waste water treatment plant.

The company also formulated two pilot projects related to the power generation in water supply pipelines and the remote management of rural water supply systems.

In 2017, EPM worked on the development of nonconventional solutions for the water business with new alternatives for the better and sustainable use of the water resource.

EPM continued the pilot project for the construction of aerial water piping in the municipality of Turbo; it built a 1.3-kilometer overhead network which underwent technical tests that met the operation expectations. Furthermore, a 400-meter stretch was pressurized at the beach; it operated properly. The investment was COP 577 million.

Of the 940 meters pending, 140 meters were implemented for the transport network. It is expected to build 500 meters of distribution network and install the different connection pipes for the pilot.

As for new initiatives, EPM formulated two pilot projects. One evaluates the pump-as-turbine (PAT) technology as a system to regulate the pressure or to relieve the excess energy from EPM's water supply network flow and use it for power generation.

The second project consists in monitoring in a remote way the water supply system of the small town of Sucre (in the municipality of Olaya), located in the western area of the department of Antioquia. This project is the result of a collaboration agreement between EPM and Aguas Regionales (Western Region) and Telemetrik.

It will be developed throughout the water supply system, including the purification plant, its pipelines, and the distribution pipelines.

Finally, the affiliate Aguas Nacionales made progress in the implementation of a biosolid (thermal drying) treatment plant at the Aguas Claras waste water treatment plant, located in Bello. The challenge is to complete the construction of the plant, put it into operation, and achieve its stabilization. The investment in 2017 was COP 67.65 billion.

| Investment (million COP)                  |        |        |
|-------------------------------------------|--------|--------|
| Concept / Indicator                       | 2016   | 2017   |
| Aerial water piping pilot project         | 559    | 577    |
| Biosolid (thermal drying) treatment plant | 28,999 | 67,653 |

**Source:** Vice Presidency of Water Supply and Sanitation



**Working  
environment**



**Grupo·epm®**





## Working environment

Grupo EPM understands the working environment based on the objective and subjective conditions that form the environment for work performance, seeking that people have a satisfactory experience when developing their activities in the company. This dynamic includes factors such as health and safety.

**Training and development:** The learning management process focuses on ensuring a smart organization, capable of learning through the training of its people and strengthening their employability through education.

**Employment and equality:** They consist of aspects related to the company-employee relationship, including remuneration, gender equality and equal employment opportunities, as well as the exercise of trade union and association rights.

Today, companies focus their strategies and efforts toward improving the quality of life of their collaborators, motivating them and building a sense of belonging to the organization. A suitable working environment helps people do their work under optimal conditions, which makes them more productive and gives them balance between personal and professional development.

### Main achievements

| Main achievements                                                                                                                                                     |                                                                                                                                                                                                                                                           |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Goals for 2017                                                                                                                                                        | Achievements in 2017                                                                                                                                                                                                                                      | Accomplishment |
| EPM: Meet the schedule of the training, cultural, social, recreational, and sports programs, which contribute to the improvement of the quality of life of Grupo EPM. | Each one of the corporate, cultural, recreational, sports, training, and social programs defined in the planning for 2017 and included in the schedule were developed.                                                                                    | Total          |
| EPM: Achieve milestones to implement the HCM project for benefits.                                                                                                    | It was found that the affiliates have similar needs to those of EPM and other exclusive needs. This shows that, just as in EPM, the module of benefits in HCM does not meet the minimal requirements to be implemented at the national energy affiliates. | Total          |

| Main achievements                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Goals for 2017                                                                                                                                                                                                       | Achievements in 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Accomplishment |
| EPM: Apply and spread the segmentation of benefits carried out for the EPM affiliate, orienting it towards the improvement of the quality of life of our people.                                                     | EPM increased the portfolio of benefits, including health benefits (to pay complementary health plan, policy, or prepaid medicine), which covered 2,293 public servants (31.5% of the total population).                                                                                                                                                                                                                                                                                                  | Total          |
| EPM: Satisfy customers through the periodic inspection of processes, improve service and prepare satisfaction surveys.                                                                                               | EPM assessed customer satisfaction in 2017 and the rating was 4.75 out of 5.0. The goal of the indicator in 2017 was 4.34. The established goal was surpassed.                                                                                                                                                                                                                                                                                                                                            | Total          |
| EPM: Continue with the optimization of the housing process, reducing service-level agreements (SLA) and developing initiatives to offer an improved service. Support negotiation of collective bargaining agreement. | EPM identified the existing deficiencies in the process and developed strategies to minimize SLAs, going from 54 to 31 calendar days.                                                                                                                                                                                                                                                                                                                                                                     | Total          |
| EPM: Achieve low-/nonexistent-risk population in the total risk indicator.                                                                                                                                           | With the purpose of improving the assessment of Work Environment in the Quality of Life component, three dimensions were taken as basis. These dimensions increased with regards to the assessment for 2016 in the low-/nonexistent-risk level: <ul style="list-style-type: none"> <li>• Role clarity: <b>2016:</b> 43.06 – <b>2017:</b> 46.39</li> <li>• Social relationships at work: <b>2016:</b> 49.34 – <b>2017:</b> 54.84</li> <li>• Leadership: <b>2016:</b> 40.67 – <b>2017:</b> 45.58</li> </ul> | Total          |
| EPM: Apply performance management cycle.                                                                                                                                                                             | The performance management cycle was applied and it covered 90% of the active population of EPM.                                                                                                                                                                                                                                                                                                                                                                                                          | Total          |
| EPM: Map human resources.                                                                                                                                                                                            | The organization assessed talents in 5,782 people, which is equivalent to 98.6% of the target population (5,862) to meet the requirements defined to be analyzed in this practice (performance commitments for 2016 completed and talent test).                                                                                                                                                                                                                                                           | Total          |

| Main achievements                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Goals for 2017                                                                                                                                                        | Achievements in 2017                                                                                                                                                                                                                                                                                                                                                                                                               | Accomplishment |
| EPM: Develop leadership.                                                                                                                                              | EPM met the goal of the Leadership School in phases I and II and implemented the Executive Coaching program with all the executive staff.                                                                                                                                                                                                                                                                                          | Total          |
| EPM: Design curricula for the development of skills.                                                                                                                  | Six of the eight curricula proposed were designed.                                                                                                                                                                                                                                                                                                                                                                                 | Partial        |
| EPM: Train to develop actions required in the achievement of performance goals.                                                                                       | Number of people trained / Number of people to be trained in the adaptability action = 1,000.                                                                                                                                                                                                                                                                                                                                      | Total          |
| EPM: Comply with the old age and disability retirement guideline and request procedure before the pension plan administrator to acknowledge the right to the benefit. | 39 retirements for pension acknowledgement. 53% of the population decides to stay.                                                                                                                                                                                                                                                                                                                                                 | Total          |
| EPM: Sign Sinpro and Sintraemsdes conventional agreements.                                                                                                            | Collective agreements with both union organizations were signed, which improved benefits for workers.                                                                                                                                                                                                                                                                                                                              | Total          |
| EPM: Train the negotiators of the Colombian affiliates of the group in addressing bargaining processes.                                                               | Affiliates were trained in the collective bargaining process and assisted in the preparation of bargaining processes.                                                                                                                                                                                                                                                                                                              | Total          |
| EPM: Review the internal work rules of the affiliates of the group.                                                                                                   | All the internal work rules of the Colombian affiliates were reviewed, making the pertinent remarks and recommendations.                                                                                                                                                                                                                                                                                                           | Total          |
| EPM: Implement an action plan that would cover approximately 1,400 vacancies in 2017.                                                                                 | Internal and external joint actions to make up a work team capable of handling the massive recruitment of people to cover the prioritized vacancies: consolidation of the internal team reinforced by people hired for temporary missions, displacement of professionals from human resource departments, and agreement with the firm Adecco.<br>Recruitment and promotion processes were carried out for 1,760 vacancies in 2017. | Total          |

| Main achievements                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Goals for 2017                                                                                                                                                                                                | Achievements in 2017                                                                                                                                                                                                                                                                                                                                                                                           | Accomplishment |
| EPM: Define an SLA for the recruitment process of 32 days per process.                                                                                                                                        | The SLA is not a standard compliance agreement; it depends on the particular condition of the process and the vacancy to be filled. There is time difference to handle the hiring of an associate degree holder—which is easier for the amount of candidates in the recruitment—and the hiring of a professional expert—more difficult to find. This involves different times that do not always meet the SLA. | Total          |
| EPM: Reduce disabling injury frequency rate (DIFR).                                                                                                                                                           | Reduction of 40% in the DIFR and the accident rate at EPM.<br>The DIFR of 0.25 was met in 2017.                                                                                                                                                                                                                                                                                                                | Total          |
| Aguas Nacionales: Put into operation the social welfare plan.                                                                                                                                                 | The occupational welfare plan for Aguas Nacionales' employees was achieved.                                                                                                                                                                                                                                                                                                                                    | Total          |
| Aguas Nacionales: Strengthen the occupational and organizational climate.                                                                                                                                     | The activities scheduled to achieve the established goal were developed.                                                                                                                                                                                                                                                                                                                                       | Partial        |
| Aguas Nacionales: Achieve the intervention plan depending on the results of the assessment for 2016.                                                                                                          | The activities scheduled to achieve the established goal were developed.                                                                                                                                                                                                                                                                                                                                       | Total          |
| Aguas Nacionales: Generate basic elements for the definition of the Individual Performance and Development Plans (IPDP), from the goals and planning actions set by the organization to the individual scale. | All the employees of Aguas Nacionales were evaluated with the IPDP tool.                                                                                                                                                                                                                                                                                                                                       | Total          |
| Aguas Regionales: Achieve the attendance of the target audience to each one of the activities scheduled.                                                                                                      | The staff invited attended and participated in the scheduled activities.                                                                                                                                                                                                                                                                                                                                       | Total          |
| Aguas Regionales: Evaluate the appropriateness of the welfare activities executed.                                                                                                                            | The appropriateness of some of the activities performed in the welfare plan were evaluated using surveys.                                                                                                                                                                                                                                                                                                      | Partial        |



| Main achievements                                                                                                                                                                |                                                                                                                                                                             |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Goals for 2017                                                                                                                                                                   | Achievements in 2017                                                                                                                                                        | Accomplishment   |
| Aguas Regionales: Unify the collective bargaining agreement benefits.                                                                                                            | The signature of the 2016-2018 collective bargaining agreement unified the extralegal benefits for all employees of Aguas Regionales EPM who are beneficiaries of the same. | Total            |
| Aguas Regionales: Prepare and execute an improvement plan based on the results of the quality of life survey carried out with the support of EPM.                                | The improvement plan was documented and executed based on the results of the quality of life survey carried out in November 2016.                                           | Total            |
| Aguas Regionales: Execute the employee welfare plan.                                                                                                                             | It was executed in its entirety.                                                                                                                                            | Total            |
| Aguas Regionales: Execute welfare activities intended to strengthen competences of the being that impact the perception of improvement of the occupational environment.          | Activities oriented to strengthen competences of the being were executed as part of the employee welfare plan.                                                              | Total            |
| Aguas Regionales: Meet the schedule of performance assessment for 2017.                                                                                                          | The schedule of performance assessment for 2017 was met.                                                                                                                    | Total            |
| Aguas Regionales: Certify the occupational skills of operation and administrative staff.                                                                                         | 84 people from the area of Operations were certified in different occupational skills of water supply and sewerage.                                                         | Total            |
| Aguas Regionales: Update the organizational structure in the light of the merger carried out in 2016 and the business rules defined to evaluate the staff required in each area. | The organizational structure was updated in the light of the merger until the leader level, and the evaluation for the positions of Aguas Regionales EPM is underway.       | Total            |
| Ticsa: Certify technician positions in the operation of the plants.                                                                                                              | The certification was not completed due to budget issues.                                                                                                                   | Not accomplished |
| Ticsa: Develop the PMI program for the management of the entire organization.                                                                                                    | The PMI methodology was developed in the project area.                                                                                                                      | Partial          |

| Main achievements                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                 |                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Goals for 2017                                                                                                                                                                                                                                                                                                                                              | Achievements in 2017                                                                                                                                                                                                                                            | Accomplishment |
| Aguas Nacionales: Solve specific learning needs and develop the organization's human resources through the integration of actions to expand the knowledge basis, strengthen the skills, and modify the attitudes in the interest of improving the employees' performance and contributing to their comprehensive development following the corporate goals. | The training and learning plan was executed.                                                                                                                                                                                                                    | Total          |
| Aguas Regionales EPM: Train operation and administrative staff in associate degree programs with the support of SENA.                                                                                                                                                                                                                                       | The associate degree in Water and Sanitation—offered at SENA but currently closed—was requested, and its opening has been scheduled for 2018.<br>Pending notice for the staff's enrollment process.                                                             | Partial        |
| Aguas Nacionales: Complete the arbitration stage.                                                                                                                                                                                                                                                                                                           | The arbitrators are defined for the beginning of the arbitration tribunal.                                                                                                                                                                                      | Partial        |
| Aguas Nacionales: Keep all the existing positions filled.                                                                                                                                                                                                                                                                                                   | The positions of Aguas Nacionales was filled by 96% of the total approved.<br>The position that has not been filled—because it has not been necessary—is that of the comprehensive management project.                                                          | Total          |
| Emvarias: Implement a performance assessment model for official positions.                                                                                                                                                                                                                                                                                  | The process was defined according to the group's guidelines and process model.<br>The indicator matrix was created to be implemented in 2018.<br>The organization established the template for the assessment of 2017 adjusted in the actions defined as group. | Partial        |
| Emvarias: Prepare a training plan to update employees in their duties.                                                                                                                                                                                                                                                                                      | The training plan was executed, oriented towards the development of technical and administrative skills and other skills regarding corporate context matters.                                                                                                   | Total          |

| Main achievements                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Goals for 2017                                                                      | Achievements in 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Accomplishment |
| Emvarias: Develop the occupational health plan.                                     | <p>The occupational safety and health management system was formulated. Improvement actions were implemented in the investigations of occupational injuries and incidents; a form of learned lessons was defined, so that employees become more aware of self-care.</p> <p>The Emvarias base of operations, maintenance, and emergency brigade was made up.</p> <p>The intervention plan defined to minimize the psychosocial risk was implemented according to the results of the quality of life survey.</p> | Total          |
| Emvarias: Implement the occupational health model following the group's guidelines. | <p>The occupational safety and health policy established by Grupo EPM was implemented.</p> <p>The guidelines and business rules were defined.</p>                                                                                                                                                                                                                                                                                                                                                              | Total          |

| Main achievements                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Goals for 2017                                                       | Achievements in 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Accomplishment |
| <p>CHEC: Implement a basic system of innovation management.</p>      | <p>CHEC started the implementation of a basic system of innovation management that integrates into Grupo EPM's innovation model. The following was accomplished:</p> <ol style="list-style-type: none"> <li>1. Construction of the innovation concept.</li> <li>2. Design of the innovation profile.</li> <li>3. Design of CHEC's innovation purpose.</li> <li>4. Identification of opportunities based on the environmental analysis.</li> <li>5. Definition of challenges and goals for 2030 included in the innovation agenda of Grupo EPM.</li> <li>6. Financing balancing entry for specialized training approved by Colciencias.</li> <li>7. International level-1 certification for CHEC, granted by the Global Innovation Management Institute, which certifies the organization as a company capable of designing, facing, and orienting disruptive innovations that generate value for a market.</li> <li>8. Award granted by Colciencias to attend the Boston Experience to get to know the (USA) Boston innovation ecosystem and receive specialized innovation training (business models).</li> </ol> | <p>Total</p>   |
| <p>CHEC: Develop training simulators for maintenance activities.</p> | <p>Software that makes training possible was developed using 3D, interactive, and immersive environments applied to power distribution networks, specifically to underground networks and aerial networks under the electrified line contact technique. The following was accomplished in 2017:</p> <ol style="list-style-type: none"> <li>1. Design of ten maneuvers in underground networks and one in aerial networks for voltage works.</li> <li>2. Development of controlled environments for training in high-risk tasks.</li> <li>3. Standardization of operation procedures and development until task level.</li> <li>4. Transfer of practicums with universities and research centers from the state of Morelos, Mexico.</li> <li>5. AMBAR Award 2017 for research and development in the Colombian power sector.</li> </ol>                                                                                                                                                                                                                                                                             | <p>Total</p>   |

| Main achievements                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Goals for 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Achievements in 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Accomplishment |
| CHEC: Implement the new methodological design of the company's orientation program.                                                                                                                                                                                                                                                                                                                                                                            | The methodological design of the orientation program was implemented. 1. Prioritization of the contents that must be submitted contributing to the employee's adaptation process. 2. Opportunity in the making of the induction program. 3. Understanding of concepts. 4. Availability of the information through the log.                                                                                                                                                                                            | Total          |
| CHEC: Obtain tax deductions for investments in research, development and innovation (R+D+i).                                                                                                                                                                                                                                                                                                                                                                   | In accordance with the statute 0377 of 2017 by Colciencias, the Interactive Training in Power Distribution Networks was rated as a technology development project, which was assigned a percentega of 125 for tax deduction due to the investments in purchase of software and recruitment of support staff; in other words, the possibility of an income tax deduction of COP 98,700 billion to the company.                                                                                                         | Total          |
| CHEC: Individual development. Discuss and publish development guidelines and define the assessment of their use and impact. Apply strategies of group development for actions, workshops, and movies CHEC, for the company. Implement the communication strategy for the action development library with actions, strategies, and links. Mobilize the definition of individual development plans for CHEC collaborators with performance commitments for 2017. | The self-management in the individual development activities were discussed, disseminated, and promoted with a communication strategy as follows: The assessment of actions for 930 employees whose performance was assessed in 2017 was mobilized. The new HCM tool for the performance management and the action assessment was gradually implemented. Employees were enabled to define goals and action assessment. Mobilizing the definition of development plans deserves an independent moment with assistance. | Total          |

| Main achievements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Goals for 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Achievements in 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Accomplishment |
| <p>CHEC: Development of leadership: Continue the pending sessions of individual development. Prepare individual potential report. Conduct group working sessions among leaders; six areas and one assistant manager's office pending for group session activation. Define leaders' individual development plan integrated into the programs and derived from the action results of 2016. Submit individual report according to the universe human development radar. Continue with the collaborative networking sessions for managers. Continue with meetings of project follow-up held by the Management Committee. Differentiate collaborative networks of all leaders. Recognize the first testimonies of living a collaborative culture. The challenges in practice continued feeding the matrix of results from the leadership exercise to make integrated feedback to the leaders, as requested or as scheduled, by Development.</p> | <p>Collaborative networks: The project that started in 2015 continued with the managers' sessions divided into two groups with meetings every two months. The closing of these two groups is scheduled for January and February 2018. The sessions continued working on the concept of collaborative networks (differentiation), and with the assessment of the moment for reflection (collaborative networking methodology), the first collaborative work testimonies have been identified. Sessions of human development in collaboration (HDC) were carried out. The Management Committee discussed the taking care of the internal coherence of the human development matters based on the collaborative networking project. Some sessions were replaced by interviews to deepen the potential assessment of 59 leaders. Upon submission of results, the planning for 2018 of this type of individual assistance was defined. CHEC's general leadership potential report was submitted to the Management Committee. Depending on the individual potential results, the reports will be submitted in the first three months of 2018. The integrated result matrix was updated with the assessments, and all the executives received feedback regarding the implementation of leadership, as well as the relationship and human status of the work teams.</p> | <p>Total</p>   |

| Main achievements                                                                                   |                                                                                                                                                                                                                                                                                                                                                                              |                |
|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Goals for 2017                                                                                      | Achievements in 2017                                                                                                                                                                                                                                                                                                                                                         | Accomplishment |
| EDEQ: Expand the coverage of the road safety training plan in accordance with Statute 1565 of 2014. | There was a coverage of 58% in the road safety trainings, which included the company's road safety policies and guidelines, as well as safe road driving techniques.                                                                                                                                                                                                         | Total          |
| EDEQ: Accomplish 90% of the learning plan 2017.                                                     | It had 20 lines of work; 18 of them were accomplished. The percentage that was not accomplished corresponds to the certification of control center operators, because suppliers are not authorized to provide certificates; they are limited to the attendance to training courses. Likewise, with regards to asset management, the supplier cancelled the events scheduled. | Total          |
| CENS: Execute 85% of the learning plan defined for the year.                                        | The execution of the planned activities was accomplished by 98%.                                                                                                                                                                                                                                                                                                             | Total          |
| Eegsa: Execute the training plan.                                                                   | It was 100% implemented.                                                                                                                                                                                                                                                                                                                                                     | Total          |
| ESSA: Implement the knowledge booster program.                                                      | The booster network was identified with key aspects of business knowledge at the company level.                                                                                                                                                                                                                                                                              | Partial        |

## Challenges

| Challenge                                               | Year in which it is achieved | Scope and coverage   |                    |                                     | Achievement indicator                                                       |
|---------------------------------------------------------|------------------------------|----------------------|--------------------|-------------------------------------|-----------------------------------------------------------------------------|
|                                                         |                              | Territory            | Business           | Company                             |                                                                             |
| Increase the usability of benefits.                     | 2018                         | Colombia - Antioquia | All the businesses | Empresas Públicas de Medellín - EPM | Increase by 1.2 percentage point the usability of benefits, that is 14.42%. |
| Implement the Strategic Mobility Plan (SMP) strategies. | 2018                         | Colombia - Antioquia | All the businesses | Empresas Públicas de Medellín - EPM | Tons of CO <sub>2</sub> emitted in the current year (2018) ≤ 10%.           |

| Challenge                                                                                | Year in which it is achieved | Scope and coverage   |                    |                                     | Achievement indicator                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------|------------------------------|----------------------|--------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                          |                              | Territory            | Business           | Company                             |                                                                                                                                                                                                                                                                                                                                                                               |
| Continue with the implementation of the healthy EPM action plan and expand its coverage. | 2018                         | Colombia - Antioquia | All the businesses | Empresas Públicas de Medellín - EPM | Schedule 100% accomplished and plan 80% covered (number of enrolled / total seats).                                                                                                                                                                                                                                                                                           |
| Achieve low-/ non-existent-risk population in the total risk indicator.                  | 2018                         | Colombia - Antioquia | All the businesses | Empresas Públicas de Medellín - EPM | 58.90%                                                                                                                                                                                                                                                                                                                                                                        |
| Check the quality of goals and performance indicators prepared during 2018.              | 2018                         | Colombia - Antioquia | All the businesses | Empresas Públicas de Medellín - EPM | Check, by the first three months of the year, minimum the 20% of the commitments assigned by each head and manager of the organization. Submit the return of the improvement opportunities and the aspects that are well prepared to do the corresponding corrections. Reveal such results during the performance commitment follow-up sessions, between May and August 2018. |
| Design and implement an online site that supports EPM's training.                        | 2018                         | Colombia - Antioquia | All the businesses | Empresas Públicas de Medellín - EPM | Online campus implemented and in operation, with implementation report.                                                                                                                                                                                                                                                                                                       |
| Manage knowledge.                                                                        | 2018                         | Colombia - Antioquia | All the businesses | Empresas Públicas de Medellín - EPM | Deliverables approved and implementation report. Identification of people with key knowledge, transfer of knowledge, and expert team.                                                                                                                                                                                                                                         |



| Challenge                                                                                                                                              | Year in which it is achieved | Scope and coverage            |                    |                                                    | Achievement indicator                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------|--------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                        |                              | Territory                     | Business           | Company                                            |                                                                                                                   |
| Take other companies as reference on the collective bargaining processes for the implementation of best practices.                                     | 2018                         | Colombia - Antioquia          | All the businesses | Empresas Públicas de Medellín - EPM                | Document about reference conclusions and submission of improvement plan about best practices.                     |
| Assist the Colombian power affiliates in the collective bargaining processes scheduled for 2018.                                                       | 2018                         | Colombia - Antioquia          | All the businesses | Empresas Públicas de Medellín - EPM                | Complete the direct arrangement stage of the collective bargaining processes.                                     |
| Address the DIFR.                                                                                                                                      | 2018                         | Colombia - Antioquia          | All the businesses | Empresas Públicas de Medellín - EPM                | 0.31                                                                                                              |
| Fill 400 vacant positions.                                                                                                                             | 2018                         | Colombia - Antioquia          | All the businesses | Empresas Públicas de Medellín - EPM                | Positions filled / Positions authorized for provision.                                                            |
| Discuss the Activate proposal (promotion of healthy habits and styles).                                                                                | 2018                         | Colombia - Caldas             | All the businesses | Central Hidroeléctrica de Caldas - CHEC            | People served.                                                                                                    |
| Increase the offer of cultural activities that promote the participation of employees and families that have not been benefited with these activities. | 2018                         | Colombia - Quindío            | Electrical energy  | Empresa de Energía del Quindío - EDEQ              | Coverage of employees and families that have not participated in the sports, recreational, and cultural programs. |
| Increase by 4% the housing fund coverage.                                                                                                              | 2018                         | Colombia - Quindío            | Electrical energy  | Empresa de Energía del Quindío - EDEQ              | Coverage of 85% of employees.                                                                                     |
| Design and accomplish 90% of the activities established in the Psychosocial Risk Intervention Plan.                                                    | 2018                         | Colombia - Norte de Santander | Electrical energy  | Centrales Eléctricas del Norte de Santander - CENS | 90% of activities accomplished.                                                                                   |

| Challenge                                                                                                                                                                           | Year in which it is achieved | Scope and coverage |                   |                                                | Achievement indicator                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|-------------------|------------------------------------------------|-------------------------------------------------------|
|                                                                                                                                                                                     |                              | Territory          | Business          | Company                                        |                                                       |
| Create the Skill-Based Performance Assessment program.                                                                                                                              | 2018                         | El Salvador        | Electrical energy | Distribuidora de Electricidad del Sur - Delsur | 100% participation of the collaborators.              |
| Accomplish the performance management scheduled annually.                                                                                                                           | 2018                         | Guatemala          | Electrical energy | Empresa Eléctrica de Guatemala - Eegsa         | 100% of employees with performance assessment result. |
| Negotiate the collective agreements of Eegsa and Enérgica, whose validity date is until June 30, 2016.                                                                              | 2018                         | Guatemala          | Electrical energy | Empresa Eléctrica de Guatemala - Eegsa         | Collective agreements signed.                         |
| Continue with the implementation of the Occupational Health and Safety Management System (OHSMS) and its continuous improvement to achieve an acceptable assessment of 86% minimum. | 2018                         | Colombia - Caldas  | Electrical energy | Central Hidroeléctrica de Caldas - CHEC        | % of implementation.                                  |
| Strengthen the OHSMS performance of contractors whose contractual purpose requires the provision of labor.                                                                          | 2018                         | Colombia - Quindío | Electrical energy | Empresa de Energía del Quindío - EDEQ          | Activities proposed / activities scheduled.           |
| Define and implement the wellbeing and training plans, which will be built based on the results obtained from the assessment of quality of life and organizational climate.         | 2018                         | Colombia           | Water             | Aguas Nacionales EPM                           | Accomplishment >=90%                                  |

| Challenge                                                                                                                                                                                                                  | Year in which it is achieved | Scope and coverage   |            |                                        | Achievement indicator                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|------------|----------------------------------------|----------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                            |                              | Territory            | Business   | Company                                |                                                                                                          |
| Start the educational stage for the staff enrolled in the Associate Degree in Water and Sanitation with the support of SENA and the certification of the work skills in water supply and sewerage for the operation staff. | 2018                         | Colombia - Antioquia | Water      | Aguas Regionales EPM                   | Staff at the beginning of the course / staff enrolled. No. of people certified / No. of people enrolled. |
| Establish new strategies that promote employees' quality of life by providing benefits.                                                                                                                                    | 2018                         | Colombia - Antioquia | Sanitation | Empresas Varias de Medellin - Emvarias | Two new strategies in the year.                                                                          |
| Implement a training program oriented to strengthen the elements of business culture (values, principles, actions, among others).                                                                                          | 2018                         | Colombia - Antioquia | Sanitation | Empresas Varias de Medellin - Emvarias | Program 100% implemented. Level of understanding of the staff.                                           |

## GRI Standards and EPM indicators

- 102-8** Information on employees and other workers.
- 102-41** Collective bargaining agreements.
- 103-1** Explanation of the material topic and its boundary.
- 103-2** The management approach and its components.
- 103-3** Evaluation of the management approach.
- EU14** Programs and processes to ensure the availability of a skilled workforce.
- EU15** Percentage of employees eligible to retire in the next 5 and 10 years, broken down by job category and by region.
- EU16** Policies and requirements regarding health and safety of employees, contractors, and subcontractors.
- EU17** Days worked by contractor and subcontractor employees involved in construction, operation, and maintenance activities.
- EU18** Percentage of contractor and subcontractor employees that have undergone relevant health and safety training.
- 401-1** New employee hires and employee turnover.

- 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees.
- 403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities.
- 403-3 Workers with high incidence or high risk of diseases related to their occupation.
- 403-4 Health and safety topics covered in formal agreements with trade unions.
- 404-1 Average hours of training per year per employee.
- 404-2 Programs for upgrading employee skills and transition assistance programs.
- 404-3 Percentage of employees receiving regular performance and career development reviews.
- 405-1 Diversity of governance bodies and employees.
- EPM-16 Percentage of employees surveyed in quality of life and psychosocial risk.

## Employee welfare and benefits

Grupo EPM develops educational, cultural, sports and recreational events and programs that contribute to the welfare, the comprehensive development, and the quality of life of its employees and their families, in order to promote opportunities for recognition, support, recreation, sports, and social and cultural projection, in a dynamic that favors motivation in its contribution to accomplishing the organizational goals.

The purpose of these programs is to plan, coordinate, manage, and provide conventional and nonconventional benefits, in order to contribute to the welfare, the comprehensive development, and the quality of life of the employees and their families. In this way, Grupo EPM motivates and builds employee loyalty, fosters harmony, establishes a sense of belonging, and strengthens corporate culture, which are basic social elements for values promotion and education, as well as for the development of personal and social principles. This has then a positive impact on the organizational climate and helps achieving the strategic vision of the group.

### Management in 2017

During 2017, EPM developed corporate, sports, recreational, cultural, educational, and social programs that had a positive impact on the quality of life of EPM People (employees, beneficiaries, retirees, and pensioners), promoting recreational, amusement, and free-time use opportunities.

CHEQ, EDEQ, CENS, ESSA, ENSA, and Eegsa expanded the benefit coverage. Likewise, Aguas Regionales, Aguas Nacionales, and Aguas de Malambo fulfilled their welfare plans.

Regarding the management of benefits, 89% of EPM's employees made use of at least one of the benefits granted by the company. Including a new health benefit for employees and beneficiaries, this means a total of 50,086 benefits amounting to COP 26 billion. This contributed to increasing the usability of the value granted in benefits and the celebration of events such as the Secretary's Day, the Family Day, and the EPM's Classic Day, with a total participation of 13,686 people. Furthermore, 479 people benefited from housing loans amounting to COP 56 billion.

The Sustainable Corporate Mobility Plan strategies, such as Cycling to Work—with 418 employees enrolled by the end of the year—, were designed and evaluated.

During 2017, Grupo EPM's affiliates developed different actions to increasingly improve the appropriateness and usability of benefits, such as recreational, cultural, and sports activities, offered to the employees and their families.

| Employee welfare programs - EPM |               |                     |               |                     |
|---------------------------------|---------------|---------------------|---------------|---------------------|
| Program                         | 2016          |                     | 2017          |                     |
|                                 | Beneficiaries | Value (million COP) | Beneficiaries | Value (million COP) |
| Social projection               | 8,259         | 1,105               | 5,612         | 484                 |
| Cultural events                 | 29,047        | 2,182               | 20,787        | 2,254               |
| Sports and recreation           | 13,750        | 2,586               | 17,198        | 2,778               |
| <b>Total</b>                    | <b>51,056</b> | <b>5,874</b>        | <b>43,597</b> | <b>5,516</b>        |

Source: Vice Presidency of Human Resources and Technology

| Program          | 2016          |                     | 2017          |                     |
|------------------|---------------|---------------------|---------------|---------------------|
|                  | Beneficiaries | Value (million COP) | Beneficiaries | Value (million COP) |
| Welfare programs | 81,640        | 17,772              | 87,134        | 18,264              |

Source: Grupo EPM's affiliates

| Total - Grupo EPM             | 2015   | 2016   | 2017   |
|-------------------------------|--------|--------|--------|
| Number of benefits            | 49,084 | 47,909 | 56,825 |
| Value (million COP)           | 54,156 | 61,162 | 60,685 |
| % of employees using benefits | 92%    | 86%    | 89%    |

Source: Grupo EPM's affiliates

| Loans disbursed - EPM Group      |               |               |               |
|----------------------------------|---------------|---------------|---------------|
| Total - Energy affiliates        | 2015          | 2016          | 2017          |
| Number of home loans             | 476           | 425           | 625           |
| Number of loans for other items  | 2,603         | 2,949         | 2,936         |
| <b>Total loans disbursed</b>     | <b>3,079</b>  | <b>3,374</b>  | <b>3,561</b>  |
| <b>Loans value (million COP)</b> | <b>41,693</b> | <b>40,989</b> | <b>68,683</b> |

## GRI Standards and EPM indicators

**401-2** Benefits provided to full-time employees that are not provided to temporary or part-time employees.

## Quality of life

The Quality of Life program is based on the identification, assessment, prevention, intervention, and ongoing monitoring of exposure of employees to psychosocial risk factors, at work and outside work. Health and safety at work transcend the traditional concepts and become a very important aspect associated with productivity in modern organizations. Therefore, the assessment of psychosocial risks gives us vital information to focus on the actions that foresee and prevent diseases caused by occupational stress.

### Management in 2017

For the development of the Quality of Life program, EPM strengthened the interactions among the departments involved in order to balance the working environment and the outside-work conditions.

With the purpose of improving the assessment of Work Environment in the Quality of Life component, EPM took as basis three dimensions whose assessment increased, compared to 2016:

- **Role clarity:** 2016: 43.06 – 2017: 46.39, increase in the low-/nonexistent-risk level.
- **Social relationships at work:** 2016: 49.34 – 2017: 54.84, increase in the low-/nonexistent-risk level.
- **Leadership:** 2016: 40.67 – 2017: 45.58, increase in the low-/nonexistent-risk level.

The activities of EDEQ during 2017 focused on developing skills to handle situations generating stress and uncertainty. They included workshops about development of interpersonal relationships, stress management, conflict resolution, and emotional intelligence. Also, the company strengthened the leadership skills of the Management Committee, the team managers, and some process leaders, through the managerial skill development program in conjunction with University of the Andes and the coaching provided by the occupational risks administrator.

CENS developed the psychosocial risk intervention plan for 2017 considering the most affected domains in the at-work conditions. They were control domain, work demand domain, leadership domain, and social relationships. The promotion, prevention, and intervention plan covered 74.71% of the total CENS population and 90.10% of the population identified with high and very high risk levels.

Among the challenges proposed for 2018, Emvarias includes to continue strengthening the skills of leaders to improve the assessments of leadership and relationships with the work teams. As for the challenges of Aguas de Malambo, the company expects to increase the coverage of the population assessed by 80%. Likewise, Aguas Nacionales will define the welfare and training plans, based on the results obtained from the assessment of quality of life and organizational climate.

| Quality of life survey - EPM |       |       |       |
|------------------------------|-------|-------|-------|
|                              | 2015  | 2016  | 2017  |
| Surveys completed            | 4,055 | 4,920 | 5,423 |
| % of surveys completed       | 72%   | 81%   | 80%   |

In 2017, a low-/nonexistent-risk level of 61.94 was obtained, increasing by 5.22 compared to 2016.

| Quality of life survey - Psychosocial risk at EPM's affiliates |                                         |                                         |
|----------------------------------------------------------------|-----------------------------------------|-----------------------------------------|
| Company                                                        | 2016                                    | 2017                                    |
|                                                                | % of employees who completed the survey | % of employees who completed the survey |
| CHEC                                                           | 75%                                     | 80%                                     |
| CENS                                                           | 100%                                    | 87%                                     |
| ESSA                                                           | 49%                                     | 81%                                     |
| EDEQ                                                           | 77%                                     | 73%                                     |
| Eegsa                                                          | N.A.                                    | 82%                                     |
| Aguas de Malambo                                               | 92%                                     | 65%                                     |
| Aguas Regionales                                               | 69%                                     | 91%                                     |
| Aguas Nacionales                                               | 79%                                     | 92%                                     |

Source: Vice Presidency of Human Resources and Technology

## GRI Standards and EPM indicators

**EPM-16** Percentage of employees surveyed in quality of life and psychosocial risk.



# Quality of working environment

It refers to the collective perception of the employees regarding the company's practices, policies, structure, processes, and systems, impacting the human environment in which daily work takes place.

Working environment has a direct influence on employees' satisfaction, commitment, and productivity, which allows for the achievement of the company's goals.

## Stakeholders' vision

Transparent communication expectations, creation of spaces of trust to express the feelings regarding organizational dynamics, coherence between strategic speeches and decisions, employees' emotional well-being, harmony between work and family life, and balance between professional contribution and recognition.

## Relevance

The quality of the working environment has a direct influence on employees' satisfaction, commitment, productivity and, therefore, on the achievement of the company's goals. It creates social value between Grupo EPM people and Grupo EPM's companies and extends it to the other stakeholder groups in terms of trust and legitimacy.

## Risk in sustainability associated with this topic

- Perception of incoherence between the behavior of leaders and workers and the declared values and the strategic planning of Grupo EPM.

For more detailed information on the analysis of risks associated with material topics, see Material aspects and boundaries (General information).

## Main achievements

| Goals for 2017                                                                           | Achievements in 2017                                                                                                                                                                    | Accomplishment |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| ESSA: Deliver the working environment measurement to nominal groups and the action plan. | The delivery of results for the measurement 2016 was agreed, planned, and executed in order to build the action plans under the nominal group methodology in 100% of ESSA's work teams. | Total          |

| Goals for 2017                                                                                                                                           | Achievements in 2017                                                                                                                                                                                                                                          | Accomplishment |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| ESSA: Perform the working environment measurement between October and November 2017.                                                                     | The contracting process was carried out and the working environment measurement was performed as planned between October 2 to 11, 2017.                                                                                                                       | Total          |
| ESSA: Increase the indicator in the items approved by the steering committee on January 30, 2017.                                                        | The result was exceeded by 2.9 points with respect to 2016.                                                                                                                                                                                                   | Total          |
| ESSA: Ensure that departments and work teams follow the proposed plan.                                                                                   | Managers of work teams and heads of departments were advised on the construction and implementation of the working environment plans.                                                                                                                         | Total          |
| CHEC: Perform the working environment measurement 2017, based on the decisions of the Corporate Core.                                                    | There was an increase of one point in the results of quality of working environment in relation to the measurement 2015, with a coverage of 80.7% of workers. 75 nominal groups were measured, corresponding to 97.5% of the total amount of teams and areas. | Total          |
| CENS: Execute the working environment measurement 2017.                                                                                                  | The company maintained its rating in the working environment measurement, which counted on the participation of 91% of the workers.                                                                                                                           | Total          |
| EDEQ: Deliver the results to the remaining 10 work teams, so that leaders can include activities for improving or keeping variables in their work plans. | Results were delivered to the 10 teams as planned.                                                                                                                                                                                                            | Total          |
| EDEQ: Perform the working environment measurement with 100% of the EDEQ's employees working on the date defined by the group.                            | The measurement had a participation of 78.42%.                                                                                                                                                                                                                | Partial        |
| HET: Draw up the Human Resource Management Plan.                                                                                                         | The work plan for ENSA was defined to allow integration and optimization of activities in the structuring of the human management in HET as of 2018.                                                                                                          | Total          |
| HET: Implement strategies of the human resource program.                                                                                                 | A budget reserve was set aside to carry out human management activities in 2018.                                                                                                                                                                              | Total          |
| Eegsa: Implement, permanently, the Working Environment Management Plan.                                                                                  | Improvement of the working environment in relation to the previous year, and greater follow-up to the execution of plans.                                                                                                                                     | Total          |
| Aguas de Antofagasta: Achieve a score equivalent to or greater than 71.6 in the working environment survey 2017.                                         | Goal achieved. The company reached a score of 72.01 in the working environment survey 2017.                                                                                                                                                                   | Total          |

| Goals for 2017                                                                                                                                                                                                                                                                                                                                         | Achievements in 2017                                                                                                              | Accomplishment |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------|
| Aguas Nacionales: Design and implement strategies to face situations that may alter well-being, generate negative or threatening changes in professional and non-professional conditions, or increase the levels of stress in the employees of the company, through spaces for integration, learning and professional, family, and social development. | The activities scheduled to achieve the established goal were developed.                                                          | Total          |
| Aguas Regionales EPM: Define and implement an action plan according to the results of the quality of life survey.                                                                                                                                                                                                                                      | The improvement plan was documented and executed based on the results of the quality of life survey carried out in November 2016. | Total          |

## Challenges

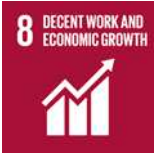
| Challenge                                                                                               | Year in which it is achieved | Scope and coverage            |                        |                                                    | Achievement indicator                                                                                                               |
|---------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------|------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                         |                              | Territory                     | Business               | Company                                            |                                                                                                                                     |
| Achieve a result of 59.4 in the working environment measurement.                                        | 2018                         | Antioquia -Colombia           | Energy, gas, and water | EPM                                                | Achieving 59.4                                                                                                                      |
| Disclose and deliver the measurement results to the executive staff, ten departments, and four regions. | 2018                         | Norte de Santander - Colombia | Energy                 | Centrales Eléctricas del Norte de Santander - CENS | Sessions scheduled / Sessions executed for the delivery of results to the required parties.                                         |
| Manage the results of the 2017 measurement through transversal actions and by work teams.               | 2018                         | Caldas - Colombia             | Energy                 | Central Hidroeléctrica de Caldas - CHEC            | Working environment management strategies implemented / Working environment management strategies planned.                          |
| Increase the indicator by one point in the 2018 measurement.                                            | 2018                         | Santander - Colombia          | Energy                 | Electrificadora de Santander - ESSA                | Difference between the results of the general working environment indicator measurement in 2018 and 2017 (Brought to present value) |

| Challenge                                                                                                                                                                                                                                 | Year in which it is achieved | Scope and coverage   |                        |                                        | Achievement indicator                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|------------------------|----------------------------------------|------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                           |                              | Territory            | Business               | Company                                |                                                                                          |
| Define and execute activities in an 80% at the organizational level together with the well-being and quality of life program for maintaining the working environment indicator.                                                           | 2018                         | Quindío - Colombia   | Energy                 | Empresa de Energía del Quindío - EDEQ  | Activities executed/ Activities planned.                                                 |
| Carry out the working environment measurement.                                                                                                                                                                                            | 2018                         | Antioquia            | Solid waste management | Empresas Varias de Medellín            | Definition of the baseline on which to take actions once the measurement is performed.   |
|                                                                                                                                                                                                                                           |                              | Mexico               | Water                  | Tecnológica Intercontinental -Ticsa    | Definition of the baseline on which to take actions once the measurement is performed.   |
| Keep current results.                                                                                                                                                                                                                     | 2018                         | Guatemala            | Energy                 | Empresa Eléctrica de Guatemala - Eegsa | Result equal to or higher than the previous year (Excellent Level: More than 80 points). |
| Reach a score equal to or greater than 72 in the working environment survey of 2018.                                                                                                                                                      | 2018                         | Chile                | Water                  | Aguas de Antofagasta - Adasa           | Results of the survey.                                                                   |
| Design and implement strategies to face situations that may alter well-being, generate negative or threatening changes in professional and non-professional conditions, or increase the levels of stress in the employees of the company. | 2018                         | Antioquia - Colombia | Water                  | Aguas Nacionales                       | Number of activities executed / Number of activities scheduled.                          |

# GRI Standards and EPM indicators

**EPM-02** Results of the organizational climate measurement.

## Sustainable Development Goals



# Organizational climate



Collective perception regarding the company's practices, policies, structure, processes, and systems and its resulting reaction that has an impact on the human environment in which daily work, satisfaction, commitment, and productivity take place. It is defined by the leader's performance, people's commitment, and the way they work and interact. In this regard, organizational climate is a collective development that calls for the commitment of all the those involved.

The quality of the organizational climate directly influences employees' satisfaction, commitment, and productivity, and therefore, the achievement of the company's goals. It creates a social value among Grupo EPM's people and Grupo EPM's companies and extends it to the other stakeholders in terms of trust and legitimacy.

## Management in 2017

Encontrémonos para conversar (Let's meet to talk) are spaces for the CEO and some managers and their work team to share experiences and learnings about development and performance commitments.

During 2017, EPM continued to strengthen its work environment, so that employees could have a satisfactory experience in the development of their activities within the company, as well as an emotional well-being and balance between their family and work life.

- In February 2017, the results of the 2016 measurement were delivered. The results were analyzed and discussed, and the improvement plans at the business and department levels were defined, focused on strengthening the three basic dimensions (leadership, organizational clarity, and relationships) that would mobilize the results of the measurement.
- In September 2017, actions were shared, a lot was learned based on the experience of success stories, and opportunities for improvement were discovered based on the measures that have allowed strengthening the organizational climate.
- In November 2017, the organizational climate was measured, and 87% of the population participated in this measurement. The score obtained (58.9 points) stood at the "good level" of the scale, which suggests favorable perceptions in relation to the work realities examined. Thanks to this, there was a significant increase of 3.4 points compared to the previous year, broadly meeting the goal.

In most of the companies of the group where this measurement took place in 2017, there was a significant increase in the score compared to that of 2016.

Actions for the improvement of the organizational climate continue to be developed under suitable conditions within the framework of the management plans defined in each of the affiliated companies. In the group's energy companies in Colombia, management focused on the dimensions of leadership, organizational clarity, and relationships that mobilized the results of the measurement.

At EPM and some affiliated companies, the results of the organizational climate, communication effectiveness, quality of life, and psychosocial risk measurements were integrated to design the action and improvement plans.

| Results of the organizational climate measurement |      |      |      |
|---------------------------------------------------|------|------|------|
| Companies                                         | 2015 | 2016 | 2017 |
| EPM                                               | 52.9 | 54.2 | 58.9 |
| Adasa                                             | 65   | 71   | 72   |
| CHEC                                              | 52.8 | N.A. | 54   |
| ESSA                                              | 47.7 | 49.3 | 54   |
| EDEQ                                              | 53.3 | N.A. | 62   |
| CENS                                              | N.A. | 56   | 55.0 |
| DelSur                                            | N.A. | 86   | N.A. |
| Eegsa                                             | 84   | 85   | 89   |
| ENSA                                              | 79   | 75   | N.A. |

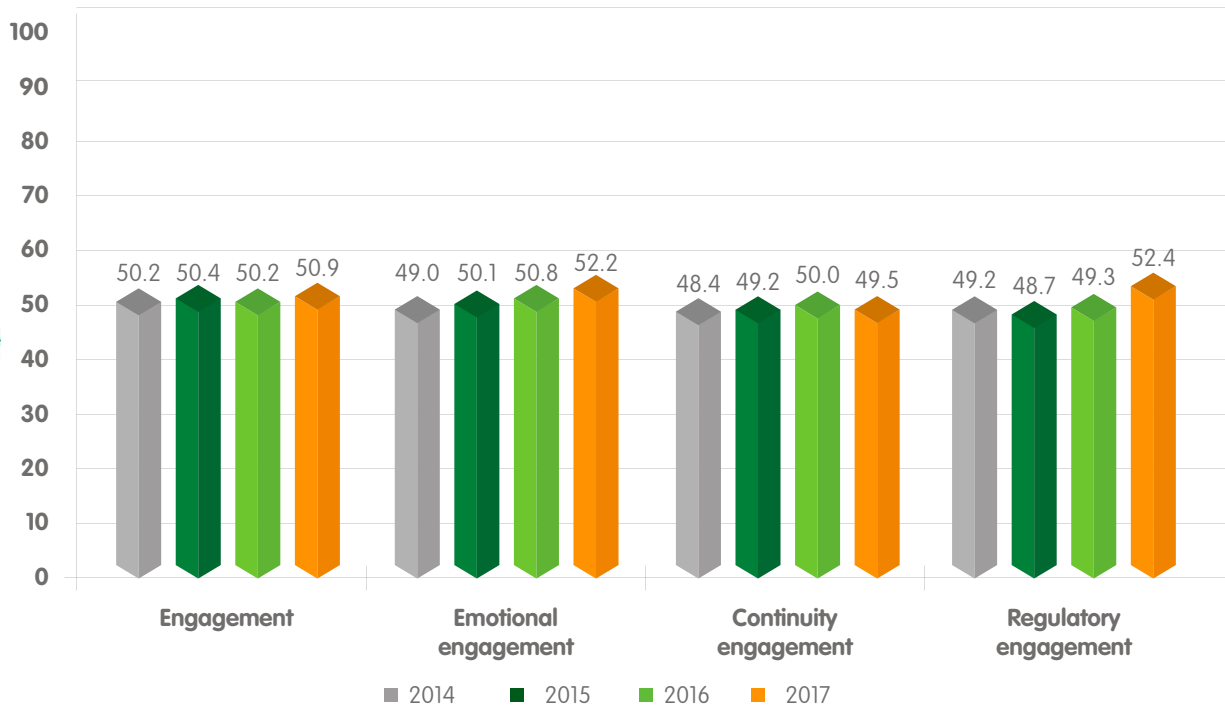
*The measurement tool and frequency of application is not the same for all the companies of the group. Therefore, it is not possible to carry out a consolidated analysis of the results at the moment. However, it is important to highlight the improvement in the scores of EPM, ESSA, EDEQ, and Eegsa.*

*In the group's water companies in Colombia, the organizational climate is not measured. Its management lies in the measurement of quality of life and psychosocial risk.*

*In general, in the companies where the measurement took place in 2017, there was a significant improvement in the result compared to that of the previous year.*

Emotional engagement was measured with the support of CINCEL. Emotional engagement is understood as the emotional aptitude or adhesion towards the company, through which individuals identify themselves, get involved, and enjoy being part of it. The score obtained was 52.2 points.

**Emotional engagement measurement from 2014 to 2017 at EPM**



## GRI Standards and EPM indicators

**EPM-02** Results of the organizational climate measurement.



## Employee performance

Performance management at Grupo EPM helps align the individual and collective contributions of employees with the objectives of the organization, through a continuous improvement of those abilities that lead to the fulfillment of the business purpose.

In this way, EPM employees—of which one third obtained a performance assessment rating at the “Exceeds” level—contributed to the fulfillment of the company’s expected results.

Implementing the process of performance and development through its stages during the annual cycle enables conversations to define employees’ goals and indicators aligned with the organizational goals and to assess the progress report and expected results.

As for the actions, leadership of the heads of unit continues to develop, which is evidenced in the increase in its perception, through the different tools that are used to collect the information.

### Management in 2017

In 2017, all the leaders of the organization were trained in executive coaching to strengthen the dimensions expected from a leader of EPM: self-development and development of relationships and results. This allowed them to be trained and reflect on the ability to have an effective conversation and to nurture and coordinate actions, promises, and requests to their collaborators. At the affiliated companies CHEC, EDEQ, ESSA, and CENS, the performance module of the HCM application was implemented to define performance commitments.

At EPM, the first talent review was carried out for support staff and assistants, and the second one, for technicians and technologists, and the assessment of talent of professionals and executives was completed. Heads and managers were allowed to deliver the results of said assessment and the results of the assessment of potential applied to the support staff which was completed in December 2016.

During the last quarter of 2017, a training module for heads and team managers was designed and executed for developing performance goals and indicators to increase the quality and accuracy of the goals and indicators for 2018. Additionally, an online course was designed with the same contents of said module.

The integrated process of performance and development and its related regulations were documented, including the following activities: performance management, development management, and human talent assessment.

The affiliated companies CHEC, EDEQ, ESSA, and CENS focused their efforts on implementing the performance module of the HCM application to define their employees' commitments.

Eegsa developed its annual plan by updating the progress in their objectives on a monthly basis.

Aguas Nacionales assessed all the staff and obtained satisfactory results through the IPDP tool. Aguas Regionales implemented the methodology designed for assessing employee performance to professionals as it had been stated in its plan.

Ticsa was able to assess the efficiency of individual performance and its contribution to meeting the strategy, through the Performance Improvement Process (PIP), and Emvarias also applied the performance assessment model in positions held by public servants.

| Coverage of the performance management process at Grupo EPM |                                            |                                            |                                            |
|-------------------------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|
| Company                                                     | 2015                                       | 2016                                       | 2017                                       |
|                                                             | % of employees with performance assessment | % of employees with performance assessment | % of employees with performance assessment |
| CHEC <sup>1</sup>                                           | 7.0%                                       | 97.0%                                      | 89.0%                                      |
| CENS <sup>2</sup>                                           | 27.0%                                      | 18.0%                                      | 94.0%                                      |
| ESSA                                                        | N.R.                                       | 100%                                       | 96%                                        |
| EDEQ <sup>3</sup>                                           | 100%                                       | 70%                                        | N.D.                                       |
| Delsur <sup>4</sup>                                         | N.A.                                       | 430                                        | 429                                        |
| Eegsa                                                       | 100%                                       | 100%                                       | 100%                                       |
| EPM Chile <sup>5</sup>                                      | N.A.                                       | N.A.                                       | 100%                                       |
| ENSA                                                        | 100%                                       | 100%                                       | 100%                                       |
| Aguas Regionales <sup>6</sup>                               | N.A.                                       | -                                          | 7%                                         |
| Aguas Nacionales <sup>7</sup>                               | 100%                                       | 100%                                       | 100%                                       |
| Emvarias <sup>8</sup>                                       | N.D.                                       | 77.5%                                      | 58%                                        |
| Aguas de Antofagasta Adasa <sup>9</sup>                     | 100%                                       | 100%                                       | 100%                                       |
| Ticsa                                                       | N.D.                                       | 100%                                       | 100%                                       |

<sup>1</sup> The remaining 11% is a result of situations documented in the process. The largest number of people without commitments corresponds to new employees.

<sup>2</sup> The 6% of employees who do not have a performance assessment correspond to those who did meet the minimum requirements defined.

<sup>3</sup> The final result will be obtained in March according to the assessment cycle.

<sup>4</sup> Average rating of all performance assessments.

<sup>5</sup> The six employees are assessed.

<sup>6</sup> The % of employees with performance assessment corresponds to employees up to the professional level (18 people).

<sup>7</sup> All employees were assessed.

<sup>8</sup> The organizational skills of 153 collaborators were assessed.

<sup>9</sup> In January 2018, the 2017 performance assessment process began, covering 100% of employees with an indefinite duration contract.

<sup>10</sup> The figures reported correspond to those before the completion of the 2017 assessment.

## GRI Standards and EPM indicators

**404-3** Percentage of employees receiving regular performance and career development reviews.

## Training and development

At Grupo EPM, the processes of learning management and development management focus on developing a smart business group, able to learn from the training of its people and facilitate the creation, transfer, retention, and application of knowledge to enable the transformation of individual learning into collective knowledge. Development strategies to enhance the abilities of each individual and align their knowledge, behavior, and skills, with the strategic plan of the organization are constantly sought.

Development at EPM is outlined based on a 70/20/10 scheme, in which the 70 is defined by the possibility of exposing employees to new work scenarios to develop skills; the 20 is defined by the possibility of learning with others; and the 10 includes all the strategies of guided training—the latter corresponds to the strategies used by the EPM University to materialize all strategies for the development of human talent at EPM.

### Management in 2017

CHEC was granted an award from Colciencias to attend the Boston Experience, with the purpose of learning about the innovation ecosystem in Boston, United States and receive specialized training in innovation (business models), as well as the Premio Ámbar 2017 (Ámbar award) for research and development in the Colombian electricity sector for developing a software for 3D interactive and immersive training applied to electricity distribution networks, specifically in underground networks and aerial networks using the live-line technique.

The EPM University is the mechanism that articulates all development strategies identified and applied in order to consolidate individual and group abilities to leverage productivity and achieve the strategic goals of the organization. The university relies on the 70/20/10 scheme to guide its work, focusing on the actions included in the 10%, which refer to formal and informal learning strategies. It has three fundamental lines of action:

Individual development and development of teams and leaders. Acquisition and strengthening of organizational skills. Certifications, compliance with regulations, and management systems.

The results obtained from the management of the development of people at EPM under this mechanism are as follows:

CHEC started implementing a basic innovation management system that is consistent with the innovation model of Grupo EPM.

EDEQ developed a program of managerial skills such as leadership training aimed at 35 leaders, with topics associated with the development of a high-impact, systemic leadership and a global vision of the new organizational challenges. It also carried out a training program to develop the initial innovation system aimed at 21 employees to create a business model aligned with the company's strategy.

At ESSA, 950 employees were trained, covering 95% of the total personnel. A total of 154 training events were held, which focused on aligning the competencies, behaviors, skills, and professional development of employees with the company's strategic plan.

CENS carried out 96 training and education events in which 76% of the employees participated, completing 98% of its learning plan for 2017.

Aguas Regionales received support from EPM in training and learning actions in various areas to qualify the work performed. Malambo and Aguas Nacionales also completed their training plans for 2017.

| <b>Training and development figures at EPM</b>                                                          |             |             |             |
|---------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|
|                                                                                                         | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| Training hours/Average employee                                                                         | 33          | 20          | 33          |
| Training hours for executives/Total training hours per average employee                                 | 71          | 30          | 51          |
| Training hours for professionals/Total training hours per average employee                              | 35          | 26          | 37          |
| Training hours for assistants, technicians, and technologists/Total training hours per average employee | 16          | 12          | 25          |
| Training hours for support staff/Total training hours per average employee                              | 19          | 21          | 37          |
| Number of learning events held                                                                          | 814         | 666         | 804         |
| Number of graduate programs applications approved for the year <sup>1</sup>                             | 20          |             | 15          |
| Scholarships awarded by the Merit Scholarships program                                                  | 4           |             |             |
| Trips abroad for training approved                                                                      | 45          | 50          | 68          |
| Investment in the organizational learning plan (COP million)                                            | 3,632       | 2,184       | 4,662       |
| Implementation of the organizational learning plan                                                      |             | 90%         | 94%         |
| Budget execution <sup>2</sup>                                                                           | 91%         | 89%         | 84%         |

<sup>1</sup> A graduate program sponsorship was developed with the aim of developing new skills for the 20-25 program.

<sup>2</sup> Execution was affected by the postponement of the payment of graduate studies to 2018, the under execution of some actions associated with the development of work competencies, and a lower execution of the agreement with Colfuturo for the Merit Scholarships.

## GRI Standards and EPM indicators

**404-1** Average hours of training per year per employee.

**404-2** Programs for upgrading employee skills and transition assistance programs.

## Retirees and pensioners

In order to maintain its relationship with retirees and pensioners, the business group develops various strategies that enable close relations with this subgroup.

### Management in 2017

The relationship with retirees and pensioners is permanently strengthened through the implementation of varied and innovative activities that are addressed from different dimensions: personal, social, recreational, and cultural.

The organization's commitment to and communication with this group is warm and close, which is reflected in their participation in and attendance at all planned activities.

During 2017, EPM developed programs designed to maintain and strengthen relations with its retirees and pensioners. The termination of the employment contract of 39 employees due to retirement was carried out. A total of 53% of the population opted to stay. This group participated in the following activities: Good Adulthood program, annual tribute to retirees and pensioners, gym, pool tables and ping pong tables, Family Day, and spiritual counseling.

At EPM, for 2017, 2018 and 2019, a total of 95, 137, and 155 employees, respectively, will meet the requirements to access to their old age pension and be part of the country's current pension system.

CHEC complies with the regulations regarding payments and benefits of retirees and pensioners, by timely paying them. Fulfillment of requirements by the group of retirees and active employees is constantly reviewed in order to start the old-age pension procedures with the pension fund administrators.

In order to maintain its relationship with retirees and pensioners, EPM and the national energy affiliated companies, such as CENS, develop various strategies that enable close relations with this subgroup.

EDEQ carries out a constant review of the fulfillment of requirements by the group of retirees (11), in order to request them the timely filing of the old-age pension application with the pension fund. During 2017, four applications were submitted to the fund, of which three were approved and one is pending for approval in 2018.

| Retirees and pensioners EPM                                                                     |         |         |         |
|-------------------------------------------------------------------------------------------------|---------|---------|---------|
| Indicators                                                                                      | 2015    | 2016    | 2017    |
| Pension plan coverage (%)                                                                       | 100%    | 100%    | 100%    |
| Contributions from the organization (COP million)                                               | 2,807   | 3,054   | 4,073   |
| Contributions from employee (COP million)                                                       | 1,024   | 951     | 1,365   |
| Solidarity Fund (COP million)                                                                   | 17      | 19.8    | 333     |
| Retirees and pensioners in the year                                                             | 125     | 59      | 39      |
| Direct retirees (cumulative)                                                                    | 2,313   | 2,351   | 2,193   |
| Value of the actuarial calculation of retirement payments as of December 31, 2008 (COP million) | 455,122 | 515,794 | 485,428 |
| Freestanding trust fund for payment of retirement payments (COP million)                        | 311,759 | 364,395 | 294,852 |

**Source:** Vice Presidency of Human Resources and Technology

The increase in the pension item from 2016 to 2017 is due to the payment of contributions UGPP audit, the collection of portfolios of funds, court judgements, and readjustment of pension contributions from 2014 to 2016 of contributions not made by employees on unpaid leave, suspension, or faults.

Regarding retirees, the variation shown is due to the fact that during the year, retirees or beneficiaries have been retired due to death or have turned 25 years in the case of beneficiaries that still have this right as they continue studying.

| Energy affiliated companies                                                                     |        |        |        |
|-------------------------------------------------------------------------------------------------|--------|--------|--------|
|                                                                                                 | 2015   | 2016   | 2017   |
| Pension plan coverage (%)                                                                       | 41%    | 30%    | 29%    |
| Contributions from the organization (COP million)                                               | 14,169 | 14,469 | 14,579 |
| Contributions from employee (COP million)                                                       | 452    | 517    | 639    |
| Solidarity Fund (COP million)                                                                   | 204    | 201    | 234    |
| Retirees and pensioners in the year                                                             | 894    | 889    | 870    |
| Direct retirees (cumulative)                                                                    | 1,426  | 1,080  | 1,038  |
| Value of the actuarial calculation of retirement payments as of December 31, 2008 (COP million) | 7,532  | 7,510  | 0      |

The information of pensioners and retirees in the energy affiliated companies corresponds to the companies CHEC, CENS, ESSA, EDEQ, Delsur, and Eegsa.



| Projection of employees close to their retirement at EPM |            |            |
|----------------------------------------------------------|------------|------------|
| Indicators                                               | 2018       | 2019       |
| Executive staff                                          | 8          | 7          |
| Professional staff                                       | 41         | 67         |
| Technologists, technicians, and assistants               | 61         | 56         |
| Support staff                                            | 27         | 25         |
| <b>Total</b>                                             | <b>137</b> | <b>155</b> |

Source: Vice Presidency of Human Resources and Technology

| Employees close to their retirement - Energy affiliated companies | 2018      | 2019      | 2020      |
|-------------------------------------------------------------------|-----------|-----------|-----------|
| Executive staff                                                   | 1         | 5         | 4         |
| Professional staff                                                | 12        | 15        | 22        |
| Technologists, technicians, and assistants                        | 31        | 33        | 36        |
| Support staff                                                     | 5         | 7         | 1         |
| <b>Total</b>                                                      | <b>49</b> | <b>60</b> | <b>63</b> |

Source: Energy affiliated companies

| Employees close to their retirement - Water and sanitation affiliated companies | 2018      | 2019      | 2020      |
|---------------------------------------------------------------------------------|-----------|-----------|-----------|
| Executive staff                                                                 | 1         | 0         | 0         |
| Professional staff                                                              | 11        | 7         | 7         |
| Technologists, technicians, and assistants                                      | 20        | 12        | 9         |
| Support staff                                                                   | 21        | 26        | 31        |
| <b>Total</b>                                                                    | <b>53</b> | <b>45</b> | <b>47</b> |

Source: Water and sanitation affiliated companies

## GRI Standards and EPM indicators

**EU15** Percentage of employees eligible to retire in the next 5 and 10 years, broken down by job category and by region.

## Labor unions

Set of activities that ensure an optimal relationship with labor unions and a proper compliance with the treaty commitments, generating welfare for both, the organization and its personnel.

### Management in 2017

The organization addressed the collective bargaining processes with the labor unions, Sintraemsdes and Sinpro, and signed the bargaining agreements. The agreement signed with Sintraemsdes has a validity of three years, and that signed with Sinpro, four years. With these agreements, the benefits included in the CBA were updated, generating greater coverage for employees and meeting the needs mentioned during the bargaining process.

A four-year CBA was signed with Sintraguas in the affiliated company Aguas de Malambo. The bargaining process between the affiliated company Adasa and its three labor unions (Sindicato 1, Sindicato 3 and AW&T) was successfully completed.

Acting as an operative involved, EPM trained and supported the preparation of the collective bargaining process in the affiliated companies Emvarias, CHEC, EDEQ, ESSA, and CENS. Based on this work, a report was issued with recommendations for managing the agreement. Additionally, the affiliated companies received support in their legal defense in administrative investigations, achieving the acquittal of the affiliated company ESSA in a fine totaling COP 3.6 billion.

All the labor unions of Grupo EPM received the same treatment, regardless of their political lines of thought, number of affiliates, position on the conflict, etc.

The benefits received by the labor unions were subject to criteria of proportionality, reasonableness, coherence, relevance, and legality. Labor union pluralism, right of association, and collective bargaining were respected within the framework of the social rule of law.

Labor unions are granted compensated absences for exercising labor union activities, as established by law; are paid travel expenses for labor union activities; are protected through their labor union rights; have working groups to address their concerns; and can use posters and communication spaces for disseminating their information.

| Number of unionized people at EPM |              |              |              |
|-----------------------------------|--------------|--------------|--------------|
| Unions                            | 2015         | 2016         | 2017         |
| Sintraemsdes                      | 3,121        | 2,961        | 2,964        |
| By extension Sintraemsdes         | 153          | 122          | 226          |
| Sinpro                            | 2,094        | 2,873        | 3,684        |
| By extension Sinpro               | 462          | 124          | 190          |
| Sinpro and Sintraemsdes           | 58           | 56           | 80           |
| Unigeep - Sintraemsdes            | 5            | 51           | 54           |
| Sintrasertic-Sintraemsdes         | 0            | 5            | 5            |
| Sintrasertic-Sinpro               | 0            | 6            | 6            |
| Sintreua-Sintraemsdes             | 0            | 57           | 50           |
| Sintreua-Sinpro                   | 0            | 0            | 1            |
| Unigeep - Sinpro                  | 6            | 18           | 13           |
| Unigeep - Sinpro - Sintraemsdes   | 0            | 0            | 4            |
| Under no agreements               | 22           | 8            | 9            |
| <b>Total</b>                      | <b>5,921</b> | <b>6,281</b> | <b>7,286</b> |

**Source:** Vice Presidency of Human Resources and Technology

*Union pluralism increased the simultaneous affiliation of some employees in several labor unions.*

| Energy affiliated companies | 2015         | 2016         | 2017         |
|-----------------------------|--------------|--------------|--------------|
| Sintraelecol                | 2,102        | 2,166        | 2,261        |
| By extension Sintraelecol   | 161          | 170          | 602          |
| Sintraemsdes                | 0            | 0            | 0            |
| SIPROESSA                   | 157          | 118          | 54           |
| Sintrachec                  | 30           | 30           | 1            |
| Sinemchec                   | 57           | 55           | 72           |
| Under no agreements         | 291          | 364          | 32           |
| Other unions                | 361          | 507          | 529          |
| <b>Total</b>                | <b>3,159</b> | <b>3,410</b> | <b>3,551</b> |

*Source: Energy affiliated companies*

| Water and sanitation affiliated companies | 2015       | 2016       | 2017         |
|-------------------------------------------|------------|------------|--------------|
| Sintraemsdes                              | 203        | 181        | 186          |
| By extension Sintraemsdes                 | 114        | 79         | 70           |
| Under no agreements                       | 20         | 30         | 39           |
| Emvarias' Workers Union                   | 244        | 246        | 245          |
| Other unions                              | 274        | 345        | 482          |
| <b>Total</b>                              | <b>855</b> | <b>881</b> | <b>1,022</b> |

*Source: Water and sanitation affiliated companies*

## GRI Standards and EPM indicators

**102-41** Collective bargaining agreements.

# Personnel

At Grupo EPM, the wage scale is defined by structured occupational groups: executives, professionals, technologists, technicians, and assistants and support staff. The report of payroll employees includes levels, categories, types of positions, and wages at each affiliated company.

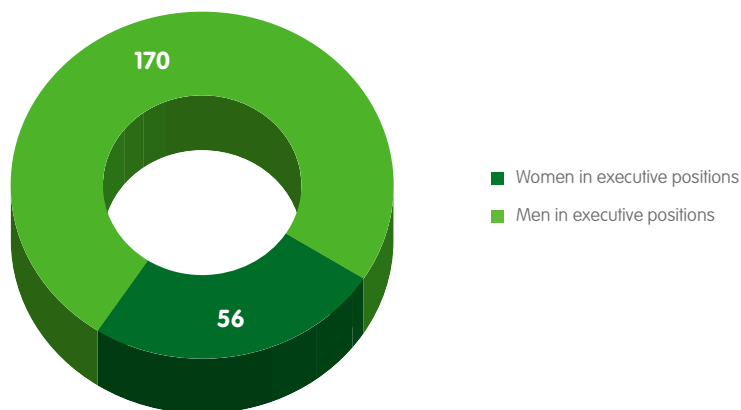
Some of the affiliated companies in Colombia offer a fixed compensation and certain benefits, most of them included in the CBA. Other companies offer an integral salary to individuals who meet the requirements.

## Management in 2017

EPM has a program of internships for apprentices and interns through which it welcomed a total of 282 students from technical and technological institutions and 159 students from 23 universities in 2017. Of this student population, 165 students participated in 455 free training events offered by the company to complement their performance or as a personal training.

In 2017, EPM changed the administrative structure of some of its vice presidencies, impacting approximately 2,235 employees.

Composition of executive positions by gender



| Indicators                               | 2015 | 2016 | 2017 |
|------------------------------------------|------|------|------|
| Men in executive positions               | 160  | 156  | 170  |
| Women in executive positions             | 71   | 57   | 56   |
| Men in first-level executive positions   | 10   | 6    | 6    |
| Women in first-level executive positions | 8    | 1    | 1    |

As of December 31, 2017, two women were commissioned to hold the following positions: Vice Presidency of Shared Services and Supplies and Vice Presidency of Corporate Communications and Relationships. They were not included in the total of women in first-level executive positions.

| Composition of positions by gender at EPM  |              |              |              |              |              |              |              |              |              |
|--------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Staff                                      | 2015         |              |              | 2016         |              |              | 2017         |              |              |
|                                            | Total        | Men          | Women        | Total        | Men          | Women        | Total        | Men          | Women        |
| Executives                                 | 231          | 160          | 71           | 213          | 156          | 57           | 226          | 170          | 56           |
| Professionals                              | 2,296        | 1,304        | 992          | 2,486        | 1,434        | 1,052        | 2,878        | 1,632        | 1,246        |
| Technologists, technicians, and assistants | 2,339        | 1,596        | 743          | 2,435        | 1,650        | 785          | 2,800        | 1,885        | 915          |
| Support                                    | 1,125        | 1,115        | 10           | 1,147        | 1,139        | 8            | 1,382        | 1,371        | 11           |
| Professionals in training                  | -            | -            | -            | -            | -            | -            | -            | -            | -            |
| <b>Subtotal</b>                            | <b>5,991</b> | <b>4,175</b> | <b>1,816</b> | <b>6,281</b> | <b>4,379</b> | <b>1,902</b> | <b>7,286</b> | <b>5,058</b> | <b>2,228</b> |
| Apprentices                                | 226          | 45           | 181          | 282          | 104          | 178          | 273          | 108          | 165          |
| Interns                                    | 80           | 34           | 46           | 81           | 47           | 34           | 72           | 42           | 30           |
| <b>Subtotal</b>                            | <b>306</b>   | <b>79</b>    | <b>227</b>   | <b>363</b>   | <b>151</b>   | <b>212</b>   | <b>345</b>   | <b>150</b>   | <b>195</b>   |
| <b>Total</b>                               | <b>6,297</b> | <b>4,254</b> | <b>2,043</b> | <b>6,644</b> | <b>4,530</b> | <b>2,114</b> | <b>7,631</b> | <b>5,208</b> | <b>2,423</b> |

Source: Vice Presidency of Human Resources and Technology

Gender non-discrimination is included in the organization's policies. A total of 31% of the personnel is composed of women.

| Staff                                      | 2015         | 2016         | 2017         |
|--------------------------------------------|--------------|--------------|--------------|
| Executives                                 | 231          | 213          | 226          |
| Professionals                              | 2,296        | 2,486        | 2,878        |
| Technologists, technicians, and assistants | 2,339        | 2,435        | 2,800        |
| Support                                    | 1,125        | 1,147        | 1,382        |
| <b>Total</b>                               | <b>5,991</b> | <b>6,281</b> | <b>7,286</b> |

The number of employees increased significantly in 2017 due to the scope of the Vice Presidency of Projects and Engineering and the creation of positions in the Commercial Vice Presidency and in other vice presidencies, in order to avoid inappropriate outsourcing.

| Companies                                             | 2015  | 2016  | 2017  |
|-------------------------------------------------------|-------|-------|-------|
| EPM                                                   | 5,991 | 6,281 | 7,286 |
| Aguas Nacionales EPM                                  | 12    | 11    | 20    |
| Aguas de Oriente Antioqueño                           | 12    | 11    | 12    |
| Aguas Regionales                                      | 51    | 235   | 241   |
|                                                       | 178   |       |       |
| Aguas de Malambo                                      | 89    | 90    | 92    |
| Empresas Varias de Medellín                           | 263   | 264   | 264   |
| Central Hidroeléctrica de Caldas                      | 902   | 928   | 1,008 |
| Electrificadora de Santander                          | 923   | 928   | 1,000 |
| Empresa de Energía del Quindío                        | 334   | 359   | 417   |
| Centrales Eléctricas del Norte de Santander           | 498   | 514   | 516   |
| Delsur                                                | 302   | 300   | 302   |
| Grupo Deca Guatemala                                  | 686   | 753   | 809   |
| Empresa Eléctrica de Guatemala, S.A. Eegsa            | 476   | 513   | 554   |
| Comercializadora Eléctrica de Guatemala, S.A. Comegsa | 14    | 18    | 18    |
| Transportista Eléctrica Centroamericana, S.A. Trelec  | 54    | 75    | 86    |
| Enérgica, S.A.                                        | 119   | 119   | 117   |

| Companies                                                | 2015          | 2016          | 2017          |
|----------------------------------------------------------|---------------|---------------|---------------|
| Almacenaje y Manejo de Materiales Electricos, S.A. Amesa | 23            | 28            | 34            |
| EPM Chile (Los Cururos)                                  | 6             | 6             | 5             |
| Tecnología Intercontinental -Ticsa                       | 302           | 280           | 235           |
| Hidroecológica del Teribe S.A. HET                       | 26            | 26            | 26            |
| Elektra Noreste S. A. ENSA                               | 525           | 539           | 574           |
| Aguas de Antofagasta                                     | 399           | 439           | 448           |
| <b>Total Grupo EPM</b>                                   | <b>11,499</b> | <b>11,964</b> | <b>13,255</b> |

The number of employees of the group tended to increase in the last four years, largely due to the incorporation of new affiliated companies to Grupo EPM and the increase in the number of employees at EPM.

| Distribution of employees by age at EPM            |              |              |              |
|----------------------------------------------------|--------------|--------------|--------------|
| Age ranges                                         | 2015         | 2016         | 2017         |
| 18 - 25 years                                      | 39           | 41           | 104          |
| 25 - 30 years                                      | 340          | 362          | 557          |
| 30 - 35 years                                      | 799          | 855          | 1,048        |
| 35 - 40 years                                      | 773          | 873          | 1,125        |
| 40 - 45 years                                      | 726          | 727          | 868          |
| 45 - 50 years                                      | 1,102        | 1,006        | 962          |
| 50 - 55 years                                      | 1,286        | 1,296        | 1,263        |
| 55 - 60 years                                      | 832          | 946          | 1,110        |
| >60 years                                          | 94           | 175          | 249          |
| <b>Total number of employees as of December 31</b> | <b>5,991</b> | <b>6,281</b> | <b>7,286</b> |
| Average age of employees - years                   | 45           | 45           | 43           |

Source: Vice Presidency of Human Resources and Technology

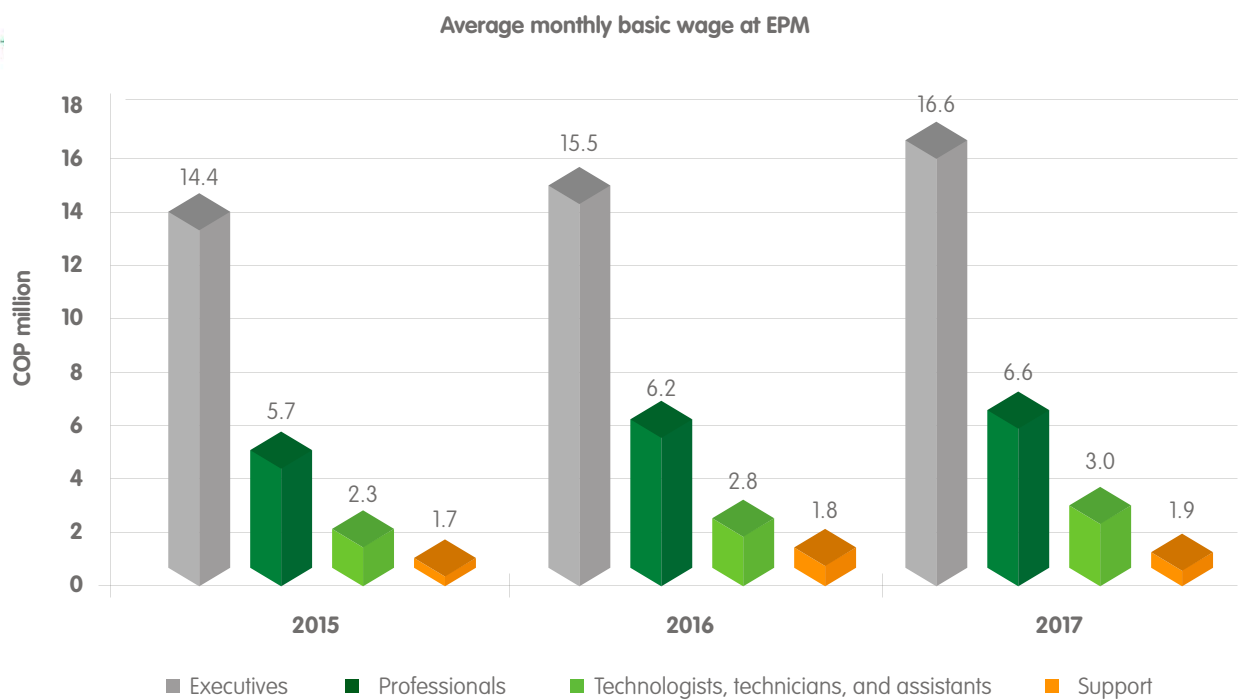
Age non-discrimination is included in the organization's policies.



| Average monthly basic wage at EPM (COP million) |      |      |      |
|-------------------------------------------------|------|------|------|
| Staff                                           | 2015 | 2016 | 2017 |
| Executives                                      | 14.4 | 15.5 | 16.7 |
| Professionals                                   | 5.7  | 6.2  | 6.6  |
| Technologists, technicians and assistants       | 2.3  | 2.8  | 3.0  |
| Support                                         | 1.7  | 1.8  | 1.9  |

Source: Vice Presidency of Human Resources and Technology

In 2017, the ratio of the annual compensation for the CEO and the median compensation for all employees is 10.15.



## GRI Standards and EPM indicators

- 102-8** Information on employees and other workers.
- 401-1** New employee hires and employee turnover.
- 405-1** Diversity of governance bodies and employees.

# Occupational health and safety

Understood as health and safety at work, it is the protection and promotion of employees' health through the control of occupational hazards causing injuries and diseases. It seeks to improve the working conditions and environment, as well as to ensure the physical, mental, and social welfare of employees in all their tasks.

## Management in 2017

The provisions of resolution No. 1111 of 2017 by the Ministry of Labor "through which the minimum standards of the Occupational Health and Safety Management System for employers and contractors are defined" were met in terms of compliance with mandatory norms, requirements, and procedures, with which the fulfillment of the basic conditions of technological and scientific capacity, of patrimonial and financial sufficiency, and of technical and administrative capacity—indispensable for the operation, exercise, and development of activities at EPM, as the employer, and by its contractors in the General System of Occupational Risks—is established, registered, verified, and controlled.

The group's companies in Colombia continue making progress in the implementation of the minimum standards to implement the Occupational Health and Safety Management System (OHSMS) for employers and contractors.

At EPM, interviews and reports were made on the findings, opportunities for improvement, and non-compliances detected by the audits, in order to define the related improvement plans. We also participated in the parameterization of the new tool for improvement plans, Audisoft, in relation to the OHSMS. Finally, the communication plan was enabled in order to comply with the activities established in the work plan, promoting self-care.

The affiliated companies are usually informed and advised on the methodologies and best practices implemented at EPM in order for them to adopt what they consider appropriate according to their conditions. The Directorate delivered the report review, and therefore, the provisions of the Ministry of Labor were met, which stipulate that "the senior management, regardless of the size of the company, must carry out a review of the Occupational Health and Safety Management System (OHSMS)." Additionally, a site was enabled on the intranet to store documents and records related to the management system and to made them available online.

The implementation of a software tool that allows the integrated management of the OHSMS in all the national companies of Grupo EPM and the monitoring of contractors and suppliers is also under evaluation.

CHEC: goals based on the Balanced Scorecard – BSC, seeking injury prevention, are established.

EDEQ: the requirements with low compliance have been prioritized in accordance with the assessment of the standards.

ESSA: strategy implemented by the assistant manager's office of substations and lines to reduce injury and severity rates, through self-care behaviors.

CENS: progress was made in the implementation process of the OHSMS, including the internal audit of the occupational health and safety management system by the Colombian Security Council, achieving a 94.73% implementation. Moreover, the GESST (Business Management in Health and Safety at Work) software was launched.

|                                                            | 2015   | 2016  | 2017  |
|------------------------------------------------------------|--------|-------|-------|
| Disabling injury frequency rate (DIFR)                     | 0.73   | 0.37  | 0.25  |
| Injury severity rate (ISR)                                 | 174.44 | 80.45 | 71.33 |
| Injury frequency rate (IFR)                                | 4.20   | 4.65  | 5.29  |
| Employees represented in safety committees (%)             | 100%   | 100%  | 100%  |
| Absentee rate - in hours worked (%)                        | 0.56%  | 0.26% | 0.22% |
| Number of occupational injuries reported                   | 346    | 403   | 340   |
| Number of fatalities due to occupational injury or disease | 0      | 0     | 0     |
| Employees' health insurance coverage                       | 100%   | 100%  | 100%  |
| Investments in occupational health (COP million)           | 4,947  | 5,685 | 6,584 |

*The increase in the value obtained from the DIFR indicator in 2015 is due to the occurrence of a serious electrical injury.*

| <b>Training in health and safety at work at EPM</b> |             |             |             |
|-----------------------------------------------------|-------------|-------------|-------------|
| <b>Concept/Indicator</b>                            | <b>2015</b> | <b>2016</b> | <b>2017</b> |
| Training hours                                      | 3,053       | 5,312       | 7,185       |
| Total hours/Trained individual                      | 37,858      | 72,432      | 43,830      |
| Total employees trained                             | 6,405       | 13,010      | 5,705       |

**Source:** Vice Presidency of Human Resources and Technology

## GRI Standards and EPM indicators

- EU16** Policies and requirements regarding health and safety of employees, contractors, and subcontractors.
- EU17** Days worked by contractor and subcontractor employees involved in construction, operation, and maintenance activities.
- EU18** Percentage of contractor and subcontractor employees that have undergone relevant health and safety training.
- 403-2** Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities.
- 403-3** Workers with high incidence or high risk of diseases related to their occupation.
- 403-4** Health and safety topics covered in formal agreements with trade unions.

# Personnel selection

Grupo EPM develops the activities necessary for the selection of individuals who meet the positions' requirements and adapt to the cultural characteristics of the entities. In addition, other services are provided such as management of professionals in training, management of apprentices and interns, admission of assigned employees, review and analysis of requirements, and assessment, for purposes different to personnel selection.

## Management in 2017

Stabilization of the HCM tool at EPM to support the execution of the selection processes. Progress made in the homologation of business rules for hiring personnel, as well as, in the design for implementing the recruitment module of HCM in the national energy affiliated companies.

At EPM, 2,014 actions were managed to fill vacancies, through the following mechanisms:

- Admission of 1,133 new individuals to the company
- 410 promotions, 239 changes through selection processes, and 45 employees commissioned as project leaders
- 194 transfers of employees between departments, seeking the optimal placement of resources and the proper development of the employees

CHEC: the board of directors approved 63 vacancies under indefinite-duration and fixed-term contracts.

EDEQ: 90 new employees joined the organization. Within the framework of the Professional in Training program, 16 individuals were hired under fixed-term contracts.

ESSA: 336 offers of employment were developed, with a total of 195 positions covered.

CENS: 56 candidates were selected. A total of 24 for promotions and 32 for vacancies. A total of 93% coverage of personnel approved.

| Indicators           | 2015 | 2016 | 2017  |
|----------------------|------|------|-------|
| Selection processes  | 736  | 780  | 1.367 |
| Contract adjustments | 290  | 344  | 650   |
| Women hired          | 176  | 242  | 703   |
| Men hired            | 425  | 538  | 1,311 |

| Personnel selection at Grupo EPM |       |       |       |
|----------------------------------|-------|-------|-------|
| Indicators                       | 2015  | 2016  | 2017  |
| Selection processes              | 1,338 | 1,373 | 2,216 |
| Contract adjustments             | 419   | 736   | 1,156 |
| Women hired                      | 343   | 496   | 992   |
| Men hired                        | 692   | 1,040 | 2,096 |

*Source: Vice Presidency of Human Resources and Technology*

## GRI Standards and EPM indicators

**EU14** Programs and processes to ensure the availability of a skilled workforce.



# Social and environmental management in projects



Grupo·epm®





## Social and environmental management in projects

A set of environmental and social activities carried out by Grupo EPM as a developer of projects that transform the regions in which it operates. The purpose is to contribute to the construction of competitive and sustainable territories, by handling negative impacts and enhancing positive ones, as well as to avoid the materialization of risks in the construction and operation phases. This largely depends on the capacities to manage the socio-political dimension, the understanding of social and environmental forces, and the construction of trust within the territories.

Today, infrastructure projects to achieve expansion and growth are being built, such as the Ituango Hydroelectric Project in the department of Antioquia, with an installed capacity of 2,400 MW, that will meet 17% of the power demand in Colombia from 2022 onwards. Moreover, projects for the expansion of the National Transmission System were developed, such as Nueva Esperanza with 500- and 230-kV lines and substations that will increase the reliability of the electricity systems in Bogotá and Cundinamarca, and the 230-kV Bello-Guayabal-Ancón line in the metropolitan area of the Valle de Aburrá. Likewise, substations and lines of the Regional Transmission System are being built and repowered to meet the energy demand in Antioquia, Santander, and Norte de Santander, while progress is made in the Sanitation Plan of the Medellín river and its affluent streams, and in the sustainable construction program – Aldeas.

### Main achievements

| Goals                                                                                                         | Achievements                                                                                                                                                                                                                                                               | Accomplishment |
|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Management of environmental and social impacts in Grupo EPM's projects.                                       | Compliance with all the environmental and social management plans.                                                                                                                                                                                                         | Total          |
| Management of procedures and environmental licensing required for the construction of Grupo EPM's projects.   | Management of procedures for obtaining environmental licenses and permits for forestry use and offset, scientific research, ending closed seasons, subtraction of reserve areas and landfills, among others.                                                               | Total          |
| Adaptation of the reservoir basin and restoration of conservation areas in the Ituango Hydroelectric Project. | A first contract was awarded for the removal of 686 ha in the reservoir basin, and works for the adaptation of the basin began.<br>The contracting process for ecological restoration activities began. It is expected to award the contract in the first quarter of 2018. | Partial        |



| Goals                                                                                                                               | Achievements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Accomplishment |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Restoration of the living conditions, focusing on populations in the reservoir basin of the Ituango Hydroelectric Project.          | 85% progress in the process of conciliation with inhabitants. The following actions are the most relevant:<br>Agreement on the negative impact on economic activity with 367 miners in the area of the reservoir basin, 10 gold buyers, and 47 muleteers.<br>Agreement on measures to manage the restoration of the living conditions of seven scattered families in the reservoir area and the La Angelina and Mogotes communities.<br>Relocation of 44 families from the Barbacoas and Orobajo communities under the modality of group resettlement.<br>Design, in association with the Antioquia Department of Culture, of the management measure for the cultural impact due to the flooding of the Pescadero bridge. | Partial        |
| Compliance with and closure of commitments included in the environmental and social management plan of the Nueva Esperanza project. | Implementation, 100% compliance with, and closure of the environmental and social management plans of the project during its construction.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Total          |
| Start of activities included in the forestry offset plan of the Nueva Esperanza project.                                            | Through the agreement signed between EPM and Fundación Natura and Parques Nacionales, the implementation of the forestry offset plan began.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Total          |
| Implementation of the dissemination plan of public archaeology of the Nueva Esperanza substation.                                   | Design of pedagogical material and workshops with different target audiences.<br>Start of works for the adaptation of the museum hall in the municipality of Soacha.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Total          |
| Relocation of six families located along the Bello-Guayabal-Ancón project line.                                                     | Families relocated in the municipalities of Medellín and Envigado.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Total          |
| Beginning of operations of the Bello-Guayabal-Ancón project.                                                                        | On September 23, 2017, the line started operations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Total          |

| Goals                                                                                            | Achievements                                                                                                                                                                                      | Accomplishment |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Progress in the works of the Medellín River's Sanitation and Waste Water Management Plan (SWMP). | Progress of works and monitoring of the environmental management plan of the project. Completion of the forestry offset plan (12,239 trees) and the preventive archeology program of the project. | Partial        |
| Construction of 48 new houses within the Aldeas program.                                         | 48 houses were installed in four municipalities:<br>17 in Cocorná, 18 in Peque, 10 in San Pedro de los Milagros, and 3 in Briceño.                                                                | Total          |
| Construction and delivery of two Articulated Life Units (UVAs).                                  | The Poblado and Pedregal UVAs were delivered to the community.                                                                                                                                    | Total          |

## Challenges

| Challenge                                                                                                     | Year in which it is achieved | Scope and coverage   |                    |                                     | Achievement indicator                                                                                                                                                 | Achievements and progress made in its management |
|---------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|--------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
|                                                                                                               |                              | Territory            | Business           | Company                             |                                                                                                                                                                       |                                                  |
| Management of environmental and social impacts in Grupo EPM's projects.                                       | 2018                         | Colombia             | All the businesses | Empresas Públicas de Medellín - EPM | Compliance with all the actions defined in the environmental and social management plans.                                                                             | Management until 2018.                           |
| Management of procedures and environmental licensing required for the construction of Grupo EPM's projects.   | 2018                         | Colombia             | All the businesses | Empresas Públicas de Medellín - EPM | Monitoring of the matrix of environmental procedures required vs. procedures obtained.                                                                                | Management until 2018.                           |
| Adaptation of the reservoir basin and restoration of conservation areas in the Ituango Hydroelectric Project. | 2018                         | Colombia – Antioquia | Electrical energy  | Empresas Públicas de Medellín - EPM | Adaptation of 1,066 ha in the reservoir basin.<br>Beginning of the restoration of 200 ha of TDF and 150 ha of TMF within the framework of the conservation portfolio. | Management until 2018.                           |

| Challenge                                                                                           | Year in which it is achieved | Scope and coverage   |                   |                                     | Achievement indicator                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Achievements and progress made in its management |
|-----------------------------------------------------------------------------------------------------|------------------------------|----------------------|-------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
|                                                                                                     |                              | Territory            | Business          | Company                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                  |
| Management of the risks associated with filling the reservoir of the Ituango Hydroelectric Project. | 2018                         | Colombia – Antioquia | Energía eléctrica | Empresas Públicas de Medellín - EPM | <p>Execution of the contingency plan to ensure the mobility of the citizens in the urban area of Ituango.</p> <p>Implementation of an alarm system for people who remain in the areas surrounding the reservoir basin.</p> <p>Implementation of the management measure for the cultural impact due to the flooding of the Pescadero bridge.</p> <p>Execution of the mechanism of control and disposal of plant material and other floating waste in the reservoir.</p> | Management until 2018.                           |
| Consolidation of the integration of the Ituango project into the territory.                         | 2018                         | Colombia – Antioquia | Electrical energy | Empresas Públicas de Medellín - EPM | <p>Award of six contracts to organizations in the area of influence through the social contracting mechanism.</p> <p>Celebration of the Environment Week in the municipalities within the area of influence of the project.</p> <p>Start of construction of the road heading to the small town of El Aro (Ituango).</p> <p>Integration of the project into the post-agreement initiatives developed by the national government.</p>                                    | Management until 2018.                           |

| Challenge                                                                                                                  | Year in which it is achieved | Scope and coverage   |                   |                                     | Achievement indicator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Achievements and progress made in its management |
|----------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|-------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
|                                                                                                                            |                              | Territory            | Business          | Company                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                  |
| Restoration of the living conditions, focusing on populations in the reservoir basin of the Ituango Hydroelectric Project. | 2018                         | Colombia – Antioquia | Electrical energy | Empresas Públicas de Medellín - EPM | <p>Implementation of the measures designed and planned for the connection of citizens living on the right and left banks of the river.</p> <p>Exhumation of the bodies in the cemeteries of Orobajo (Sabanalarga), Barbacoas (Peque), and Fortuna (Buriticá).</p> <p>Agreement on and start of the execution of the cultural activities defined for the management of the cultural impact due to the loss of the Pescadero bridge with the municipalities of Ituango and Toledo.</p> <p>Beginning of the execution of the improvement works of the community infrastructure in La Angelina and other rural settlements within the area of influence, plus those considered as recipients, under the modality of social contracting.</p> <p>Completion of migration pressure management projects in San Andrés de Cuerquia.</p> <p>Celebration of the Environment Week in the municipalities within the area of influence of the project.</p> <p>Start of construction of the road heading to the small town of El Aro (Ituango).</p> | Management until 2018.                           |

| Challenge                                                                                                                             | Year in which it is achieved | Scope and coverage   |                   |                                     | Achievement indicator                                                                                                                                                                                                                                           | Achievements and progress made in its management                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|-------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                       |                              | Territory            | Business          | Company                             |                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                |
| Completion and delivery of the museum hall of the Nueva Esperanza project in the municipality of Soacha.                              | 2018                         | Colombia             | Electrical energy | Empresas Públicas de Medellín - EPM | Delivery of the museum hall to the competent entities.                                                                                                                                                                                                          | Management until 2018.                                                                                                                                                                         |
| Closing of permits and responsibilities regarding the environmental license of Aguas Claras – EPM's Waste Water Treatment Plant Park. | 2019                         | Colombia – Antioquia | Sanitation        | Empresas Públicas de Medellín - EPM | Permits and responsibilities completed with the environmental authority.                                                                                                                                                                                        | Progress made regarding compliance with the Environmental Management Plans under construction, for the respective closing of permits and responsibilities regarding the environmental license. |
| Maintenance of 12,239 trees planted in Aguas Claras – EPM's Waste Water Treatment Plant Park.                                         | 2021                         | Colombia – Antioquia | Sanitation        | Empresas Públicas de Medellín - EPM | Number of trees maintained/Number of trees planted.                                                                                                                                                                                                             | Compliance with the actions defined in the reforestation plan approved by the environmental authority.                                                                                         |
| Construction of sustainable infrastructure (Aldeas program).                                                                          | 2018                         | Colombia – Antioquia | Electrical energy | Empresas Públicas de Medellín - EPM | Installation of seven indigenous rural schools under an arrangement with five municipalities and the Indigenous Management of Antioquia.<br>Emvarias locative infrastructure installation (17 modules).<br>Installation of plant nurseries in 4 municipalities. | Management until 2018.                                                                                                                                                                         |

## Environmental investment, cost, and expenditure

| Environmental investments in 2017 - Grupo EPM (COP million) |                   |                                            |                      |                          |                    |                  |                                  |              |               |
|-------------------------------------------------------------|-------------------|--------------------------------------------|----------------------|--------------------------|--------------------|------------------|----------------------------------|--------------|---------------|
| Company                                                     | Social management | Environmental and social impact management | Physical environment | Environmental management | Biotic environment | Forestry offsets | Environmental and social studies | Other*       | Total         |
| EPM                                                         | 31,819            | 9,631                                      | 4,996                | 4,645                    | 3,574              | 376              | 9                                | 1,327        | 56,378        |
| CENS                                                        | 521               | 841                                        | 596                  | 79                       | 19                 | 2,009            | 252                              | 230          | 4,547         |
| Adasa                                                       | 0                 | 2,319                                      | 0                    | 165                      | 0                  | 0                | 573                              | 24           | 3,080         |
| Emvarias                                                    | 0                 | 2,105                                      | 0                    | 0                        | 0                  | 59               | 0                                | 0            | 2,165         |
| ESSA                                                        | 362               | 0                                          | 0                    | 0                        | 0                  | 0                | 806                              | 130          | 1,298         |
| Eegsa                                                       | 57                | 242                                        | 0                    | 234                      | 0                  | 0                | 288                              | 316          | 1,137         |
| CHEC                                                        | 0                 | 0                                          | 142                  | 460                      | 0                  | 7                | 1                                | 16           | 627           |
| ENSA                                                        | 16                | 0                                          | 0                    | 21                       | 10                 | 86               | 95                               | 162          | 391           |
| Aguas Nacionales                                            | 26                | 0                                          | 0                    | 119                      | 0                  | 0                | 0                                | 0            | 145           |
| EDEQ                                                        | 0                 | 0                                          | 0                    | 0                        | 0                  | 0                | 0                                | 0            | 0             |
| Ticsa                                                       | 0                 | 0                                          | 0                    | 0                        | 0                  | 0                | 0                                | 0            | 0             |
| Delsur                                                      | 0                 | 0                                          | 0                    | 0                        | 0                  | 0                | 0                                | 0            | 0             |
| <b>Total environmental investment</b>                       | <b>32,800</b>     | <b>15,138</b>                              | <b>5,734</b>         | <b>5,724</b>             | <b>3,603</b>       | <b>2,538</b>     | <b>2,025</b>                     | <b>2,206</b> | <b>69,768</b> |

Source: Vice Presidency of Corporate Finance and Investment Management

Information of the affiliated company Aguas Regionales is not included.

**\* Other includes:**

Archeology program

Contribution to the construction of sustainable territories

Technical management of environmental procedures

Management for engagement and communication

| Environmental costs and expenditures in 2017 - Grupo EPM (COP million) |                                 |                                                                  |                                                               |                              |                                                  |                       |                                             |               |
|------------------------------------------------------------------------|---------------------------------|------------------------------------------------------------------|---------------------------------------------------------------|------------------------------|--------------------------------------------------|-----------------------|---------------------------------------------|---------------|
| Company                                                                | Environmental impact management | Management for the protection and improvement of the environment | Comprehensive environmental management of equipment and waste | Water and weather management | Technical management of environmental procedures | Environmental studies | Other environmental activities <sup>2</sup> | Total         |
| EPM <sup>1</sup>                                                       | 18,530                          | 8,490                                                            | 6,272                                                         | 5,503                        | 3,704                                            | 1,079                 | 1,380                                       | 44,959        |
| CHEC                                                                   | 1,613                           | 3,530                                                            | 49                                                            | 523                          | 383                                              | 90                    |                                             | 6,188         |
| ESSA                                                                   | 2,220                           | 78                                                               |                                                               |                              | 194                                              | 150                   |                                             | 2,643         |
| Aguas Regionales                                                       | 1,720                           | 401                                                              |                                                               | 1                            | 1                                                |                       |                                             | 2,123         |
| Ticsa                                                                  | 230                             | 7                                                                | 1,216                                                         | 23                           | 623                                              | 0                     |                                             | 2,100         |
| CENS                                                                   | 984                             | 16                                                               |                                                               |                              | 52                                               | 373                   |                                             | 1,425         |
| Eegsa                                                                  |                                 | 607                                                              | 242                                                           |                              |                                                  | 288                   |                                             | 1,137         |
| Emvarias                                                               | 678                             | 99                                                               |                                                               |                              | 85                                               |                       | 122                                         | 983           |
| EDEQ                                                                   | 228                             | 260                                                              |                                                               |                              | 18                                               | 93                    |                                             | 599           |
| Adasa                                                                  | 10                              | 13                                                               | 58                                                            |                              | 175                                              | 19                    | 237                                         | 512           |
| Aguas de Malambo                                                       | 127                             | 127                                                              |                                                               | 127                          | 127                                              |                       |                                             | 509           |
| ENSA                                                                   | 5                               | 6                                                                | 50                                                            | 0                            | 0                                                | 165                   | 0                                           | 226           |
| Delsur                                                                 |                                 |                                                                  | 111                                                           |                              |                                                  |                       |                                             | 111           |
| <b>Total environmental costs and expenditures</b>                      | <b>26,346</b>                   | <b>13,635</b>                                                    | <b>7,999</b>                                                  | <b>6,177</b>                 | <b>5,362</b>                                     | <b>2,258</b>          | <b>1,738</b>                                | <b>63,515</b> |

Source: Vice Presidency of Corporate Finance and Investment Management - Directorate of Accounting and Costs

<sup>1</sup> Includes equity investments

<sup>2</sup> Other environmental activities includes: monitoring of environmental management and environmental process and design.

## GRI Standards and EPM indicators

- 103-1** Explanation of the material topic and its boundary.
- 103-2** The management approach and its components.
- 103-3** Evaluation of the management approach.
- 203-1** Infrastructure investments and services supported.
- 203-2** Significant indirect economic impacts.
- 413-1** Operations with local community engagement, impact assessments, and development programs.
- 413-2** Operations with significant actual and potential negative impacts on local communities.



# Ituango Hydroelectric Project

Construction of a hydroelectric power station with an installed capacity of 2,400 MW. This project is located in northern Antioquia, 171 km from the city of Medellín, between the municipality of Santa Fe de Antioquia to the south and the Ituango river to the north.

Once the power station is in full operation, this project of great magnitude will serve 17% of Colombia's power demand.

- Start date: September 2010.
- End date: September 2022.

Start of operations: stage 1 in November 2018 – stage 2 in March 2022.

## Management in 2017

### **Ituango Hydroelectric Project: a new model of integration of a project into the territory**

One of the greatest challenges of the project is managing to, beyond being an infrastructure work, become a development initiative that contributes to revitalize a territory historically weak regarding institutional presence, with a low level of socioeconomic opportunities, and with presence of actors that, outside the law, have regulated relations among citizens.

This has been achieved through the structuring of a model of integration of the project into the territory, which consists in building it and, simultaneously, making the territory where it is being built viable. It is the first of its kind in the country and has become a national and international reference. It is an example of how an infrastructure project can transform a territory by revitalizing its economy, recovering its institutionality, and engaging its citizens.

## Achievements:

The most relevant achievements in terms of environmental and social management are associated with compliance with the Environmental Management Plan and restoration of conservation areas and the living conditions of the inhabitants, through the following activities:

- Verification and management for compliance with the 1,573 current responsibilities of the environmental license and its modifications.
- Execution of forced investment projects of 1% with emphasis on the components of watershed protection and environmental education.

- Acquisition of 7,384 ha that are available for the conservation and protection of biodiversity, prioritizing the area of the reservoir.
- Adaptation of 137 ha in the reservoir basin.
- Administration, protection, and compensation of 23,278 ha (160 lands) of reservoir by means of social contracting.
- Implementation of the social center of biodiversity with the communities in the area where issues associated with the adaptation of the reservoir basin are addressed.
- Start of operations of the wildlife care center in partnership with Corantioquia.
- Agreement on the negative impact on economic activity with 367 miners in the area of the reservoir basin, 10 gold buyers, and 47 muleteers.
- Agreement on measures to manage the restoration of the living conditions of seven scattered families in the reservoir area and the La Angelina and Mogotes communities.
- Relocation of 44 families from the Barbacoas and Orobajo communities under the modality of group resettlement.
- Design, in association with the Antioquia Department of Culture, of the management measure for the cultural impact due to the flooding of the Pescadero bridge.

As for the commitments for the integration of the project into the territory, the following actions stand out:

- Completion of migration pressure management projects in the small town of El Valle in the municipality of Toledo and the municipality of San Andrés de Cuerquia.
- Completion of the Chirí Rural Education Center in Briceño.
- Completion of works of the water supply and sewerage system master plan in the municipalities of Yarumal and Ituango.
- Completion of the water purification plant and water supply and sewerage system networks in the municipality of Peque.
- Completion of the Toledo landfill.
- Completion of the participatory budget and planning projects in the municipality of Liborina.
- Improvement works of bridle paths, pedestrian bridge, and tertiary road in Toledo.
- Increase of capacities for the social contracting of 16 social and community organizations within the area of influence of the project.
- Award of ten contracts to organizations within the area of influence through the social contracting mechanism.
- Celebration of the Environment Week in the municipalities within the area of influence of the project.
- Completion of the psychosocial risk management program for vulnerable populations in the municipalities within the area of influence.
- Integration of the project into the post-agreement initiatives developed by the national government within the area of influence of the project.

## Challenges:

- Delays in procedures by environmental authorities.
- Socio-political instability in the territory within the framework of the post-agreement processes that are being carried out in the area and that coincide with the area of influence of the project.
- Informality in land tenure, which hinders the processes of land negotiation and implementation of management measures.

## GRI Standards and EPM indicators

**203-1** Infrastructure investments and services supported.

**203-2** Significant indirect economic impacts.

**413-1** Operations with local community engagement, impact assessments, and development programs.

**413-2** Operations with significant actual and potential negative impacts on local communities.

# Aguas Claras – EPM’s Waste Water Treatment Plant Park

Bello’s WWTP (EPM’s Aguas Claras Waste Water Treatment Plant Park) and the North Interceptor are part of the works that make up the Medellín River’s Sanitation and Wastewater Management Plan (SWMP).

- Treatment capacity:  
5.0 m<sup>3</sup>/secBOD<sub>5</sub>: 123 t/day
- Suspended solids:  
120 t/day removal % BOD<sub>5</sub> and  
TSS: 80%
- North interceptor:  
Diameter: 2.2 and 2.4 m  
Length: 7.7 km

This plant, which will receive the residential, industrial, and commercial waste water from Medellín and Bello—the largest municipalities of the Valle de Aburrá—will be the largest and most modern plant of Colombia, and one of the most advanced plants of its kind in Latin America.

## Management in 2017

Implementation of an innovative forestry offset strategy through the articulated work between the environmental authority, the municipality of Bello, and EPM, in which 12,239 trees were planted, contributing to the environmental sustainability of the territory and to the improvement of existing vegetation covers in areas of protection of ten micro-watersheds in the municipality of Bello and in the intervention areas of the project.

## Achievements:

- Compliance with 100% of the environmental license responsibilities.
- Completion of the Preventive Archeology program, exhibition of recovered archaeological pieces, and dissemination of the research results through the publication of an audiobook for the general public.
- Monitoring and verification of the sowing contractor activities through an online reporting application about the conditions of the arboreal individuals in real time.
- Progress made in the works of the thermal drying plant of solid organic waste as an innovative alternative for the treatment of sludge coming from the plant.

## Challenges:

- Postponement in the delivery and commissioning of the plant, associated with the progress of works by the contractor.

## GRI Standards and EPM indicators

- 203-1** Infrastructure investments and services supported.
- 203-2** Significant indirect economic impacts.
- 413-1** Operations with local community engagement, impact assessments, and development programs.
- 413-2** Operations with significant actual and potential negative impacts on local communities.

## Aldeas program

Aldeas is an innovative initiative that takes advantage of trees reaching their maturity period in the more than 7,800 ha of forest plantations around the power generation reservoirs. Its purpose is to provide an added value by offering a portfolio of constructive solutions for communities and territories with a high degree of socio-economic vulnerability in the regions where EPM operates.

Today, Aldeas is much more than just homes; it is a program that contributes to making the projects and the territories viable through sustainable construction using wood, which includes tourist infrastructure, social and community equipment infrastructure (environmental classrooms, communal stalls, schools, playgrounds), rods for fences, among others.

### Management in 2017

The Aldeas program contributes to:

- The strengthening of public and private partnerships for the promotion of the social and environmental development of the communities.
- The construction of safe habitats in the rural environment where families can continue promoting the agricultural development of the country.
- The promotion of forestry governance through the sustainable use of crop trees that complete their maturation cycle in the forests owned by EPM.
- The feasibility of projects and the validation of EPM's presence in the territories.
- The articulation of the forestry sector, the wood industry, and the construction industry, which has allowed the generation of a great number of direct and indirect jobs, contributing to the revitalization of the local and regional economy.

### Achievements:

- Involvement in the local development through public and private partnerships, in line with the municipal development plans.
- Around 240 people benefited from the installation of 48 houses in four municipalities of Antioquia.
- Investment of COP 1.92 billion in 2017.
- Ex-post assessment of the program through the application of 235 surveys in which improvement of the quality of life of the benefited families was evidenced.

## Challenges:

- Difficult access to the rural settlements in the municipality of Peque due to dispersion and isolation conditions (seven hours or more from the urban area).
- Connection to electricity for houses in the most remote areas.

## GRI Standards and EPM indicators

**203-1** Infrastructure investments and services supported.

**203-2** Significant indirect economic impacts.

**413-1** Operations with local community engagement, impact assessments, and development programs.

**413-2** Operations with significant actual and potential negative impacts on local communities.

## Bello – Guayabal – Ancón project

Construction, operation, and maintenance of the Bello-Guayabal-Ancón Sur 230-kV transmission line. It also includes the construction of a new 230-kV substation in the Guayabal sector in Medellín.

The project is located in the municipalities of Copacabana, Bello, Medellín, Envigado, Sabaneta, and La Estrella, in the department of Antioquia.

- Start date: August 2014
- Capacity: 180 MVA
- Lines: 230 kV (44 km)
- On September 23, 2017, the project started commercial operations.

### Management in 2017

Entry into operation of the project, which increases reliability and coverage of the electrical energy demand in the metropolitan area of the Valle de Aburrá and northern Antioquia. Its execution was carried out through relationships of trust and respect for the environment and the communities surrounding the project.

### Achievements:

- Completion of the implementation of 100% of the environmental management measures of the construction process.
- Relocation of six families in the municipalities of Medellín and Envigado.
- Social investment in the territory of around COP 432 million in environmental education programs, community strengthening, and participation in the development.
- Signing of conservation agreements with the municipalities of Envigado and La Estrella for forestry offset due to national and regional closed seasons and biodiversity loss of approximately 20 ha.

### Challenges:

- Modification of the environmental license due to difficulties in property negotiation in the process of easement establishment of the line.

### GRI Standards and EPM indicators

- 203-1** Infrastructure investments and services supported.
- 203-2** Significant indirect economic impacts.
- 413-1** Operations with local community engagement, impact assessments, and development programs.
- 413-2** Operations with significant actual and potential negative impacts on local communities.



# Nueva Esperanza project

Construction of the Nueva Esperanza substation and its interconnection with the Bacatá (500 kV), Guavio (230 kV), Paraíso (230 kV), and Circo (230 kV) substations. It is a project of great importance for the country for its contribution to the reliability of the National Electricity System. For this reason, it is classified as a National Project of Strategic Interest (NPSI).

- Location: department of Cundinamarca
- Capacity: 450 MV
- Lines: 500 kV (48.5 km) – 230 kV (159 km)
- Start of operations: 230-kV line in February 2017, and 500-kV line in March 2017.

## Management in 2017

Entry into operation of the project, which benefits more than 12 million people from Cundinamarca, Meta, Guaviare, and northern Tolima, enabling its construction in a complex environment through relationships of trust and respect and positioning EPM as an environmentally-responsible company committed to the archaeological heritage and the community.

## Outstanding achievements:

- Implementation of offset strategies for the more than 600 ha destined to the conservation and restoration of strategic ecosystems (265 ha in moor areas and high Andean forests).
- More than 6,000 epiphytes rescued and conserved in 10 areas for epiphytes.
- Implementation of 97 development participation projects in the municipalities within the area of influence of the project.
- Comprehensive restoration of the living conditions of 17 relocated families.
- Six EPM offices in the territory for the permanent communication with the stakeholders.
- Signing of the agreement between EPM and the Colombian Institute of Anthropology and History (abbreviated ICANH in Spanish) for the definitive possession of the archaeological collections of the Nueva Esperanza substation.
- Completion of the implementation of 100% of the environmental management measures of the construction process.

## Challenges:

- Non-timely delivery, by the construction contractor, of the supports required to document the closing of the measures in the Environmental Compliance Reports (ECR).

## GRI Standards and EPM indicators

**203-1** Infrastructure investments and services supported.

**203-2** Significant indirect economic impacts.

**413-1** Operations with local community engagement, impact assessments, and development programs.

**413-2** Operations with significant actual and potential negative impacts on local communities.

## Intermediate projects

Projects for expansion, modernization, and growth in the energy, gas, and water sectors that Grupo EPM currently develops and which promote the sustainable growth of the organization and the territories where it operates.

In power generation: the most relevant projects include the modernization of the Playas and Porce II power plants; the rehabilitation of the Dolores and Playas power plants and the Miraflores reservoir; the replacement of the Guatapé transformers; and the civil works in the Guadalupe-Troneras generation chain.

In transmission and distribution: works for the expansion and replacement of the system, improvement in service quality, electrification of homes through the Antioquia Illuminated program, customer connection and repowering, reconfiguration and modernization of regional substations and lines of projects developed by EPM and the affiliated companies CENS, ESSA, and CHEC.

In water services and sanitation: the drinking water supply projects include the Water Provision Intervention Program (abbreviated PIPA in Spanish) and the Valle de San Nicolás and Habitable Homes projects; and the projects included in the Sanitation and Wastewater Management Plan (SWMP) include Centro Parrilla, Other Basins, and Rodas-Piedras Blancas-El Salado. With the affiliated companies Aguas de Malambo and Aguas Regionales, projects regarding basic sanitation in the communities are being developed.

## Management in 2017

Improvement of the quality of life of the communities where Grupo EPM operates.

Construction of works to ensure electricity supply, provision of drinking water, and management of wastewater; increased coverage to improve continuity and quality of service to customers; and modernization and replacement of networks and infrastructure associated with public utilities.

- Compliance with the environmental and social management plans of the public utilities infrastructure projects.
- Management of the following environmental procedures and permits required for the construction works: modification of environmental licenses and forestry use and offset permits, effluents, and occupation of riverbeds.
- Programs of community information and engagement with the different regional and local stakeholders.
- Implementation of communication and engagement strategies with the different local, regional, and national stakeholders, which allowed establishing and strengthening a two-way communication and relationships of trust for the feasibility and sustainability of the projects.

- Implementation of strategies with authorities, public and private entities, and communities with the purpose of influencing the prioritization and obtaining of licenses and the feasibility of each project.
- Social support in the establishment of easements and property management.
- Environmental and social committees with advisors, contractors, auditors, and EPM.

## GRI Standards and EPM indicators

**203-1** Infrastructure investments and services supported.

**203-2** Significant indirect economic impacts.

**413-1** Operations with local community engagement, impact assessments, and development programs.

**413-2** Operations with significant actual and potential negative impacts on local communities.



**Sustainable**  
production and  
consumption



**Grupo·epm<sup>®</sup>**





## Sustainable production and consumption

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The core aspect of the strategic environmental planning of Grupo EPM, aimed at defining, coordinating, implementing, and monitoring initiatives focused on efficient use and saving of energy and water (see water care), waste management, rational consumption and saving of materials and supplies, sustainable public procurement, and best environmental practices.

Grupo EPM understands sustainable production and consumption as a decisive opportunity to optimize the use of resources in the activities required for the provision of public utilities by the Grupo EPM People; to influence the production practices of goods and services carried out by its suppliers and contractors; and to guide habit changes in customers and users, so that the group contributes to business competitiveness and, as corporate citizen, encourages the responsible use of resources and the reduction of environmental pollution.

It includes the implementation of sustainable construction criteria in the design and construction of new infrastructure in Grupo EPM, in order to optimize the use of water and energy throughout its useful life.

For the first time, information from EPM Chile, Ticsa, and Adasa is included.

## Main achievements

| Goals                                                                                                                                                        | Achievements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Accomplishment |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Establish the actual energy and water consumption and waste generation in the different processes and facilities of Grupo EPM in Colombia.                   | The 2016 baseline of energy and water consumption and waste generation in the businesses and affiliated companies that make up Grupo EPM in Colombia, except for Emvarias, was obtained.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Total          |
| Define the indicator and quantitative targets for energy and water consumption and waste recycling in the businesses and companies of Grupo EPM in Colombia. | The indicators for water and energy consumption and waste recycling were defined.<br>Targets for EPM were proposed regarding freshwater and non-renewable energy consumption, energy intensity in water supply, hazardous waste generation and waste disposal, and direct emissions of greenhouse gases, nitrogen oxides (NOx), sulfur oxides (SOx), particulate matter (PM10), and sulfur hexafluoride (SF <sub>6</sub> ).<br>The socialization of the proposed targets with the businesses and affiliated companies is pending, which will be done within the framework of the first draft of the Sustainable Production and Consumption Strategy for Grupo EPM. | Partial        |
| Keep energy generation using biogas in the San Fernando WWTP to self-supply at least 30% of the plant's internal demand.                                     | A total of 6.8 GWh/year were generated using biogas, which allowed self-supplying 43.2% of the energy needs of the San Fernando WWTP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Total          |
| Develop a sustainable procurement manual.                                                                                                                    | ENSA developed a basic guide for the purchase of supplies in a sustainable way which includes criteria for purchasing office supplies and stationery (minimum percentage of recycled fibers, absence of chlorine, avoiding multilayer packaging and materials, paper from certified renewable forests, seals using biodegradable ink, among others). These criteria are required in the current bidding processes.                                                                                                                                                                                                                                                 | Total          |

| Goals                                                    | Achievements                                                                                                                                                                                                       | Accomplishment |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Expand the coverage of electronic billing for customers. | Comegsa issues an average of 400 monthly bills for its client portfolio. Electronic billing is done through a portal in which customers can find their monthly bill corresponding to power and energy consumption. | Total          |

## Challenges

| Challenge                                                                                                                   | Year in which it is achieved | Scope and coverage   |                   |                                                | Achievement indicator                                     | Progress made in its management in 2017                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|-------------------|------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                             |                              | Territory            | Business          | Company                                        |                                                           |                                                                                                                                                                                                    |
| Acquire two electric vehicles and implement three public charging stations for electric vehicles. See sustainable mobility. | 2018                         | Colombia – Santander | Electrical energy | Electrificadora de Santander - ESSA            | Two electric vehicles and three charging stations.        | None reported.                                                                                                                                                                                     |
| Install energy meters in 24 substations to record consumption in own facilities.                                            | 2018                         | El Salvador          | Electrical energy | Distribuidora de Electricidad del Sur - Delsur | Number of installed energy meters and consumption record. | Inspection of substations to plan the installation of meters. Purchase process of remote-management meters.                                                                                        |
| Integrate equipment for the generation of photovoltaic energy for self-supply in the administrative offices.                | 2018                         | Panama               | Electrical energy | Elektra Noreste - ENSA                         | Operational photovoltaic system.                          | Progress made in the signing of two contracts:<br>- Supply, installation, and integration of technological solutions.<br>- Operation and maintenance of integrated solution systems and equipment. |



| Challenge                                                                                                                                                                          | Year in which it is achieved | Scope and coverage   |                    |                                     | Achievement indicator                                                              | Progress made in its management in 2017                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|--------------------|-------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                    |                              | Territory            | Business           | Company                             |                                                                                    |                                                                                                                                                                                                                                                                                                                                           |
| Prepare the initial draft of the 2019-2030 Sustainable Production and Consumption Strategy for Grupo EPM.                                                                          | 2018                         | All the territories  | All the businesses | All the companies                   | Document with general objective, strategic guidelines, and management axes.        | There have been records of environmental performance since 2013 for EPM and several companies of Grupo EPM, as well as initiatives that are being carried out in this matter.                                                                                                                                                             |
| Complete the implementation of the online monitoring of the energy efficiency program in the processes of wastewater catchment, purification, primary distribution, and treatment. | 2019                         | Colombia – Antioquia | Water              | Empresas Públicas de Medellín - EPM | Number of facilities with online monitoring and energy consumption of the process. | During 2017, monitoring was implemented in ten new facilities, for a cumulative total of 22. A budget execution of COP 395 million was made. The savings obtained with the program were 0.98 GWh/year, and COP 271.5 million saved in billing. Online monitoring will establish the baseline for the definition of energy saving targets. |

| Challenge                                                                                                    | Year in which it is achieved | Scope and coverage   |                    |                                     | Achievement indicator                                            | Progress made in its management in 2017                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|--------------------|-------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                              |                              | Territory            | Business           | Company                             |                                                                  |                                                                                                                                                                                                                                                                                                |
| Maintain electrical energy consumption at the EPM building below or equal to 99.23 kWh/m <sup>2</sup> -year. | 2020                         | Colombia – Antioquia | All the businesses | Empresas Públicas de Medellín - EPM | Electrical energy consumption <= 99.23 kWh/m <sup>2</sup> -year. | Formulation of the plan on rational and efficient use of electrical energy at the EPM building.<br>Compilation of annual electrical energy consumption: 116.17 kWh/m <sup>2</sup> (2014), 113.87 kWh/m <sup>2</sup> (2015), 100.69 kWh/m <sup>2</sup> (2016), 97.89 kWh/m <sup>2</sup> (2017). |

## GRI Standards and EPM indicators

- 103-1** Explanation of the material topic and its boundary.
- 103-2** The management approach and its components.
- 103-3** Evaluation of the management approach.
- 301-1** Materials used by weight or volume.
- 301-2** Recycled input materials used.
- 302-1** Energy consumption within the organization.
- 302-2** Energy consumption outside of the organization.
- 302-3** Energy intensity.
- 302-4** Reduction of energy consumption.
- 302-5** Reduction in energy requirements of products and services.
- 306-2** Waste by type and disposal method.
- 306-4** Transport of hazardous waste.

## Energy consumption

It aims to optimize the consumption of energy (electricity, gasoline, fuel oil, diesel, gas and other fuels) based on the monthly report of consumption data, the comparative analysis using historical figures, and the search for strategies to reduce or stabilize consumption.

Grupo EPM has carried out actions such as the replacement of mercury lighting elements and incandescent and fluorescent tubes for other more efficient technologies (including LEDs), the installation of solar panels for self-consumption energy, the acquisition of vehicles and buses in the company's fleet to boost electric mobility, the maintenance and adaptation of cooling systems, the preventive maintenance of electric installations, and the execution of internal staff's awareness sessions as part of the savings and efficient use program.

The power distribution and water supply companies have a plan to reduce losses in their networks. The company promotes the efficient use of energy in customers and users.

### Management in 2017

ENSA received the Environmental Excellence Award 2017 granted by the Ministry of Environment for the application of sustainability and technological innovation criteria to its new corporate building.

The power distribution business in Antioquia carried out changes in the public lighting technology of Medellín, which accounts for savings of 40% in energy consumption.

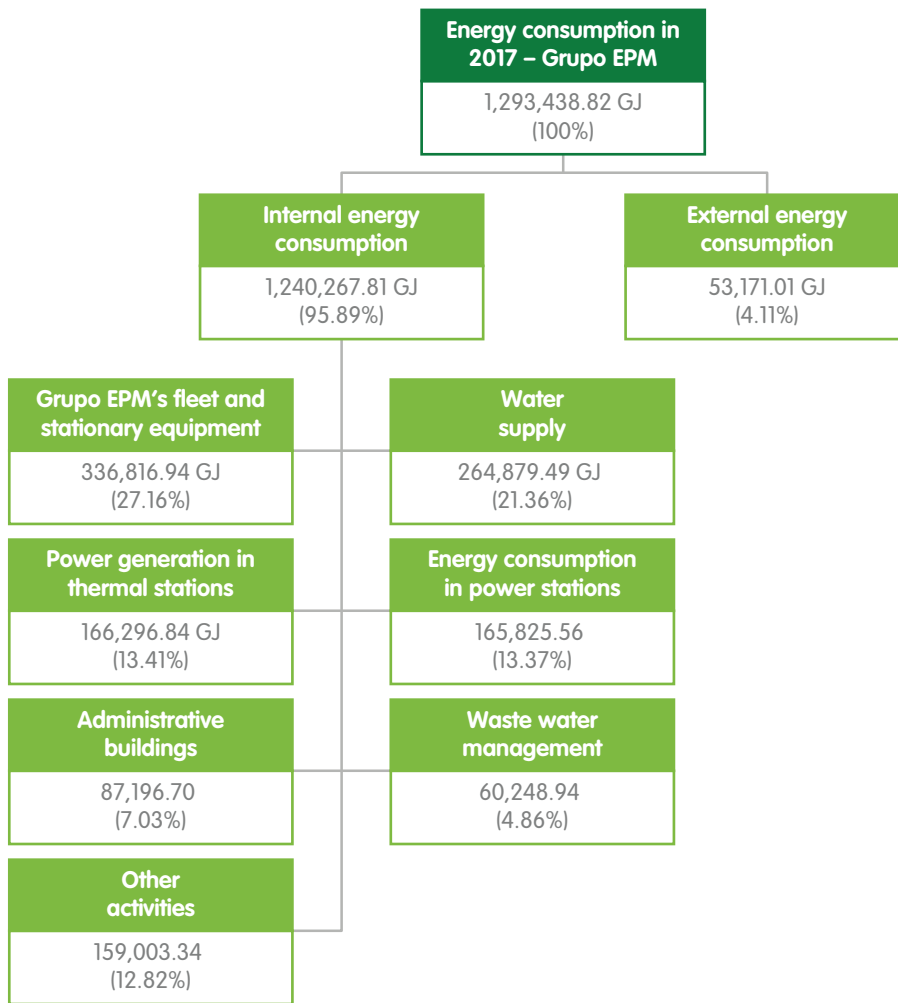
Grupo EPM requires energy for the development of its activities. 76.85% of the total energy demand, equivalent to 994,067.77 GJ, is the percentage required for the group's fleet and stationary equipment, the water provision, the power generation in the thermal stations, the waste water management, and the lighting in the power generation stations.

In 2017, the group included the natural gas used by Emvarias' solid waste collection vehicles and the diesel consumption in Adasa's stationary work equipment, which had not been included in the previous year and affect the figures considerably. Ticsa's and EPM Chile's data are also included and that is why the information is not strictly comparable to that of previous years.

The favorable hydrological conditions in 2017 did not require the operation of the thermal stations and reduced the power demand in pumping for the supply of drinking water. In 2017, the La Sierra thermal station received a more thorough maintenance that was required after its full operation to back up the sector and support EPM's generator park, during the 2015-2016 El Niño. The closure of the Barranca thermal station meant a considerable power reduction. It accounted for around 33% of ESSA's consumption.

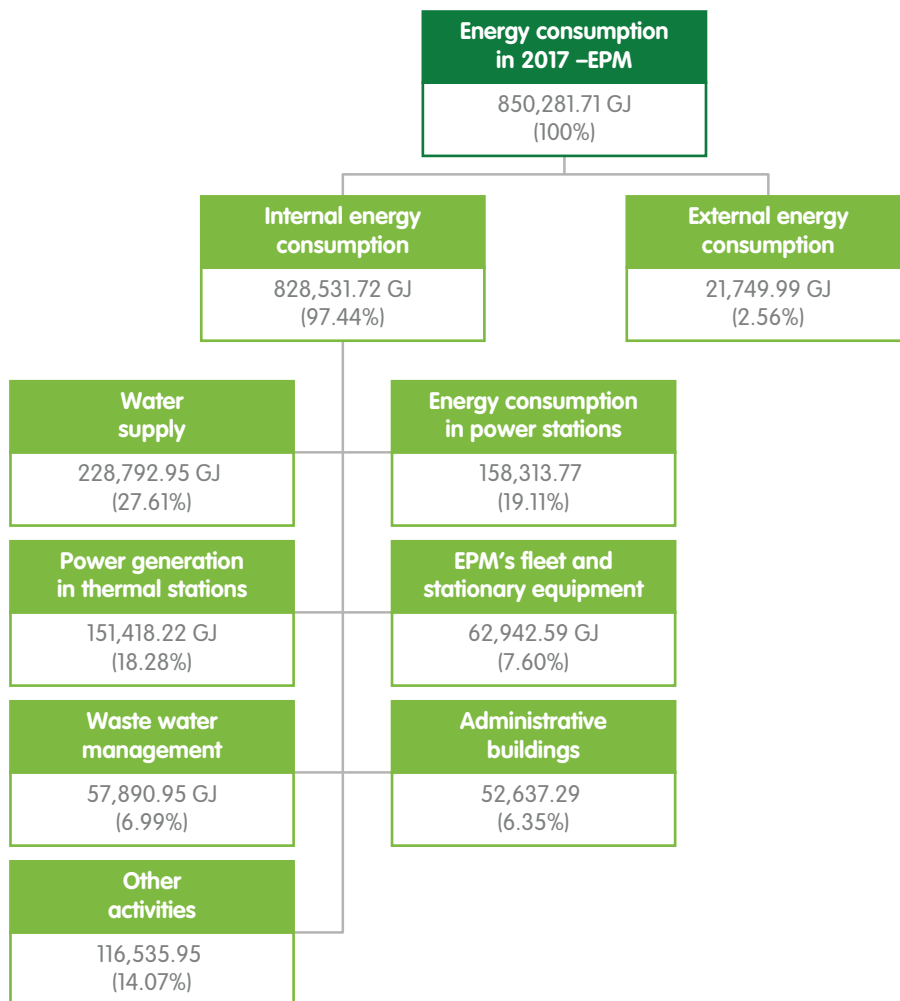
In 2017, photovoltaic systems were installed in facilities of ENSA, CENS, and ESSA. Through agreements with universities and municipalities, Eegsa promotes electric mobility. CHEC takes part in the construction of the national work plan to promote the sustainable electric mobility ecosystem.

### Energy consumption in 2017 - Grupo EPM



Source: Idsos application

## Energy consumption in 2017 - EPM



Source: Idsos application

| Internal energy consumption - Grupo EPM (GJ) |           |           |         |
|----------------------------------------------|-----------|-----------|---------|
| Source of energy                             | 2015      | 2016      | 2017    |
| Electrical energy                            | 872,556   | 832,566   | 562,543 |
| Natural gas                                  | 5,221,413 | 4,953,261 | 238,859 |
| Diesel                                       | 262,031   | 73,240    | 194,597 |
| Self-supplied electricity                    | 116,150   | 83,517    | 145,182 |
| Biogas                                       | 29,012    | 23,229    | 24,657  |

| Internal energy consumption - Grupo EPM (GJ) |                   |                  |                  |
|----------------------------------------------|-------------------|------------------|------------------|
| Source of energy                             | 2015              | 2016             | 2017             |
| Fuel oil                                     | 3,604,592         | 3,700,421        | 54,395           |
| Regular gasoline                             | 31,123            | 10,983           | 18,423           |
| Premium gasoline                             | 2,546             | 1,526            | 1,572            |
| Liquefied petroleum gas                      | 1,743             | 331              | 39               |
| <b>Total</b>                                 | <b>10,141,167</b> | <b>9,679,073</b> | <b>1,240,268</b> |

Source: Idsos application

The internal energy consumption in Grupo EPM decreased by 87.19%, mainly because it was not necessary to put the thermal stations into operation. The required fuel to operate in this type of stations was 87.68% of the total energy demand (8,649,856.27 GJ) of 2016.

Electrical energy (45.36%), followed by natural gas (19.26%) and diesel (15.69%) had the highest energy consumption rates: very different indicators compared to the years with El Niño (2015 and 2016). The self-supplied electrical energy (use of the water energy potential in power stations and use of biogas) supplies 13.69% of the internal energy demand.

The biogas and self-supplied electric energy figures were corrected for 2015 and 2016 because there was a calculation error. This correction also modified the total energy consumption for said years.

CENS installed 156 50-kW solar panels in its main building to self-supply 81% of the energy demand of this facility, as well as eight photovoltaic systems in substations.

| Internal energy consumption - EPM (GJ) |                  |                  |                |
|----------------------------------------|------------------|------------------|----------------|
| Source of energy                       | 2015             | 2016             | 2017           |
| Electrical energy                      | 743,853          | 720,254          | 443,470        |
| Self-supplied electricity              | 116,150          | 83,517           | 145,182        |
| Natural gas                            | 4,949,269        | 4,118,167        | 112,177        |
| Fuel oil                               | 3,076,150        | 3,372,739        | 46,079         |
| Diesel                                 | 48,931           | 18,478           | 42,567         |
| Biogas                                 | 29,012           | 23,229           | 24,657         |
| Regular gasoline                       | 21,386           | 8,674            | 16,406         |
| Premium gasoline                       | 1,131            | 95               | 90             |
| Liquefied petroleum gas                | 1,261            | 331              | 39             |
| <b>Total</b>                           | <b>8,987,142</b> | <b>8,345,485</b> | <b>830,666</b> |

Source: Idsos application

EPM consumes 69.97% of the group's energy. The internal energy consumption decreased by 90.05% compared to 2016 because the La Sierra thermal station did not operate. Electrical energy (53.39%) and natural gas (13.50%) had the highest consumption rates. Self-supplied electrical energy (energy use at the stations) provides 17.48% of the internal demand, and biogas used at the San Fernando WWTP accounts for 2.97% of the total demand.

The increase in the self-supplied electrical energy is explained mainly because the Guatapé power station was put into operation.

Fuels such as natural gas, fuel oil, diesel, regular gasoline, premium gasoline, and liquefied petroleum gas come from nonrenewable sources. Biogas and self-supplied electrical energy come from renewable sources. Electrical energy consumed from the network has one renewable component and another nonrenewable, which depends on the participation of the thermal stations in the generation of the country's energy.

EPM's annual goal for the 2017-2019 period consists in keeping the nonrenewable energy consumption below 8,700,000 GJ (in case of a year with El Niño) or below 1,200,000 GJ (in a year without El Niño).

The gas business implemented a project of operating and energy efficiency in the depressurization station, which consists in using the distribution line pressure to fill the storage systems in advance. Between November 2016 and August 2017, over 39,746 GJ (1,119,300 m<sup>3</sup> of gas) was used contributing around 6% of the total gas to be compressed, equivalent to energy savings of 619.20 GJ.

| Energy consumption in water supply - Grupo EPM |                          |            |           |                                  |            |            |                                                 |            |            |
|------------------------------------------------|--------------------------|------------|-----------|----------------------------------|------------|------------|-------------------------------------------------|------------|------------|
| Company                                        | Energy consumption (GWh) |            |           | Water treated (Mm <sup>3</sup> ) |            |            | GWh consumed / Mm <sup>3</sup> of water treated |            |            |
|                                                | 2015                     | 2016       | 2017      | 2015                             | 2016       | 2017       | 2015                                            | 2016       | 2017       |
| EPM                                            | 146                      | 124        | 64        | 288                              | 280        | 281        | 506                                             | 442        | 226        |
| Aguas Regionales                               | 5                        | 5          | 5         | 24                               | 24         | 23         | 225                                             | 204        | 229        |
| Aguas de Malambo                               | 5                        | 5          | 5         | 11                               | 9          | 8          | 497                                             | 536        | 586        |
| Aguas del Oriente                              | 0                        | 0          | 0         | 1                                | 1          | 1          | 178                                             | 278        | 251        |
| <b>Total</b>                                   | <b>157</b>               | <b>134</b> | <b>74</b> | <b>324</b>                       | <b>314</b> | <b>313</b> | <b>484</b>                                      | <b>426</b> | <b>235</b> |

Source: Idsos application

Consumption of electrical energy in the DWTP, tanks, pumps, wells, and collection stations is included.

The annual energy consumption for water supply in Grupo EPM was 264,879.49 GJ (21.36% of the total internal energy demand), of which 228,792.95 GJ (86.38%) were used by EPM.

The energy demand for this process decreased 44.79% in relation to 2016 because, among other reasons, in 2017 it was not necessary to permanently operate the raw water pumping stations that turn on during low flow seasons.

In 2017, EPM reduced by 48.71% the energy consumption for water supply also because of the implementation of the online consumption monitoring in 22 facilities. The quantity of treated water increased 0.49%, and the energy intensity decreased 48.95% compared to 2016. The energy consumption in pumping stations and tanks accounts for 95.71% of the demand for drinking water supply.

The energy intensity reduction of Aguas del Oriente is explained by the solution implemented for the non-revenue water.



| Energy consumption in wastewater management - Grupo EPM |                          |              |              |
|---------------------------------------------------------|--------------------------|--------------|--------------|
| Company                                                 | Energy consumption (GWh) |              |              |
|                                                         | 2015                     | 2016         | 2017         |
| EPM                                                     | 19.26                    | 16.04        | 16.08        |
| Aguas Regionales                                        | 0.99                     | 0.86         | 0.59         |
| Aguas de Malambo                                        | 0.07                     | 0.07         | 0.06         |
| <b>Total</b>                                            | <b>20.32</b>             | <b>16.98</b> | <b>16.74</b> |

Source: Idsos application

Consumption of energy in the WWTPs and the wastewater pumping stations is included.

The annual energy consumption for wastewater management in Grupo EPM was 60,248.94 GJ (4.86% of the total internal energy demand). This consumption decreased by 1.42% compared to 2016.

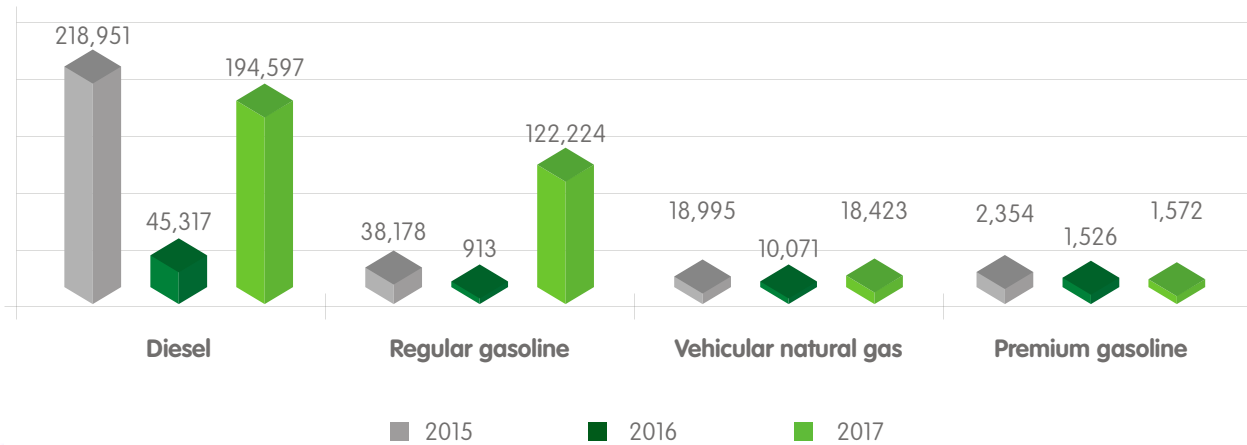
| Energy consumption in wastewater management - EPM            |             |             |             |
|--------------------------------------------------------------|-------------|-------------|-------------|
| Aspect                                                       | 2015        | 2016        | 2017        |
| Energy consumption (GWh)                                     | 19.26       | 16.04       | 16.08       |
| Volume of wastewater treated (Mm <sup>3</sup> )              | 43.21       | 41.47       | 38.57       |
| Renewable energy generated (GWh)                             | 8.06        | 6.45        | 6.85        |
| Amount of renewable energy (GWh) compared to energy consumed | 41.84%      | 40.23%      | 42.59%      |
| <b>GWh consumed / Mm<sup>3</sup> of treated wastewater</b>   | <b>0.45</b> | <b>0.39</b> | <b>0.42</b> |

Source: Idsos application

Data on energy consumption and wastewater treated correspond to two WWTPs; renewable energy generation occurs only in one of them because of the capture of biogas.

The energy consumption for wastewater management in EPM was 57,890.95 GJ (6.99% of the total internal energy demand), 0.25% less than in 2016. With the methane produced in the anaerobic digestion of sludge, the company self-supplied 43.22% of the electrical energy required in wastewater management at the San Fernando WWTP, where the heat of motor generators is also used to heat up the sludge in digesters.

## Energy consumption in the vehicle fleet and stationary equipment (GJ) - Grupo EPM



Source: Idsos application

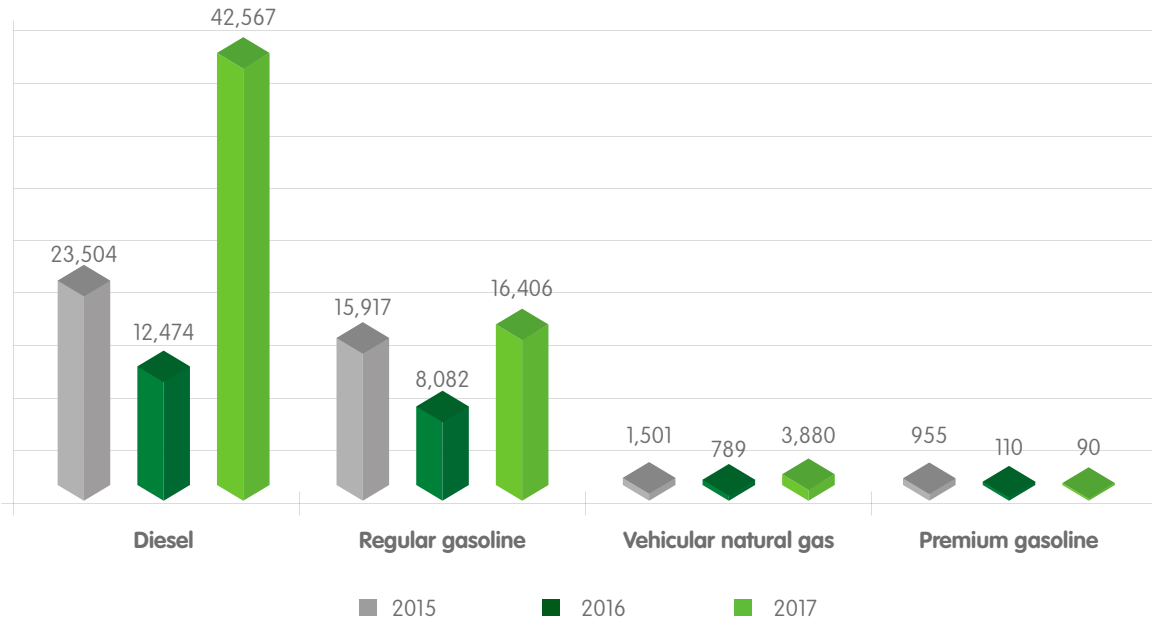
The diesel consumption in Adasa's stationary equipment is included for the first time.

In 2015 and 2017, the group included the consumption of diesel and vehicular natural gas used by Emvarias' solid waste collection vehicles. The natural gas demanded by this company in 2017 represented 96.21% of the consumption of this fuel for the group. In 2016, Emvarias did not reported fuel consumption. This is one of the main reasons why the demand of its vehicle fleet increased by 482.46% in relation to last year. It is clarified that, in 2015, Emvarias consumed the 60.06% of the diesel in the group. This company has modernized its waste collection vehicle fleet and has replaced diesel for natural gas.

The energy consumption by the vehicle fleet of Grupo EPM was 336,816.94 GJ; diesel accounts for 57.78%, followed by vehicular natural gas (36.29%).

Delsur implemented driving practices with the purpose of reducing fuel consumption per kilometer without affecting operations. It has accomplished a performance of more than 30 km/gallon. ENSA detects low performance vehicles and removes those that do not meet the expected performance.

### Energy consumption of the vehicle fleet (GJ) - EPM



Source: Idsos application

The energy consumption by EPM's vehicle fleet increased 193.37% in relation to 2016, for an amount of 62,942.59 GJ (6.62% of the total internal energy demand). Diesel accounts for 57.78%, followed by vehicular natural gas (36.29%).

EPM makes progress in initiatives for sustainable corporate mobility such as the modernization of its vehicle fleet, the use of cleaner technologies and energies (electric energy and natural gas), the implementation of teleworking, the flexibility of shifts, and the promotion of bicycle use.

### External energy consumption

| Energy consumption of the vehicle fleet hired (GJ) - Grupo EPM |               |               |               |
|----------------------------------------------------------------|---------------|---------------|---------------|
| Fuel                                                           | 2015          | 2016          | 2017          |
| Diesel                                                         | 41,985        | 61,962        | 50,740        |
| Regular gasoline                                               | 8,411         | 4,319         | 2,320         |
| Vehicular natural gas                                          | 509           | 194           | 111           |
| Premium gasoline                                               | 4             | 0             | 25            |
| <b>Total</b>                                                   | <b>50,909</b> | <b>66,474</b> | <b>53,196</b> |

Source: Idsos application

The external energy demand is calculated based on fuel consumption by the vehicle fleet hired by Grupo EPM. In 2017, this consumption was 53,195.89 GJ (19.98% less than last year), equivalent to 4.11% of the total energy demand. Diesel accounts for 95.38% of consumption.

| Energy consumption of the vehicle fleet hired (GJ) - EPM |               |               |               |
|----------------------------------------------------------|---------------|---------------|---------------|
| Fuel                                                     | 2015          | 2016          | 2017          |
| Diesel                                                   | 37,100        | 49,986        | 19,647        |
| Regular gasoline                                         | 8,411         | 3,363         | 2,077         |
| Vehicular natural gas                                    | 509           | 105           | 26            |
| Premium gasoline                                         | 4             | 0             | 25            |
| <b>Total</b>                                             | <b>46,024</b> | <b>53,454</b> | <b>21,775</b> |

Source: Idsos application

The energy consumption by the vehicle fleet hired by EPM decreased 59.26% in relation to 2016. Diesel accounts for 90.23% of the consumption. The bid specifications of personal transport contracts for infrastructure projects under construction require that vehicles work with diesel.

## GRI Standards and EPM indicators

- 302-1** Energy consumption within the organization.
- 302-2** Energy consumption outside of the organization.
- 302-3** Energy intensity.
- 302-4** Reduction of energy consumption.
- 302-5** Reduction in energy requirements of products and services.

## Waste management

Integrated solid waste management includes preventive actions in the generation, minimization, valorization, reclamation, treatment, and disposal of waste. Grupo EPM classifies waste into recyclable, biodegradable, inert and ordinary, special, and hazardous.

Grupo EPM's companies implement and update integrated waste management plans that comprise the application of strategies such as the reduction in generation, the increase in reclamation, and the programs of education and training, to contribute to the appropriate management of waste in their facilities. In turn, they participate in activities led by other institutions of each country or region to collect certain waste such as plastic lids, electrical and electronic devices, pesticides, batteries, among others, generated by Grupo EPM people, customers and users, and other stakeholders.

### Management in 2017

EPM increased the reclamation of vegetable waste from felling and pruning, coffee waste, peels and fruit waste that was taken to EPM's plant nursery for compost. That waste produced compost for green areas. That avoided that 1,728 t of waste was taken to final disposal in 2017.

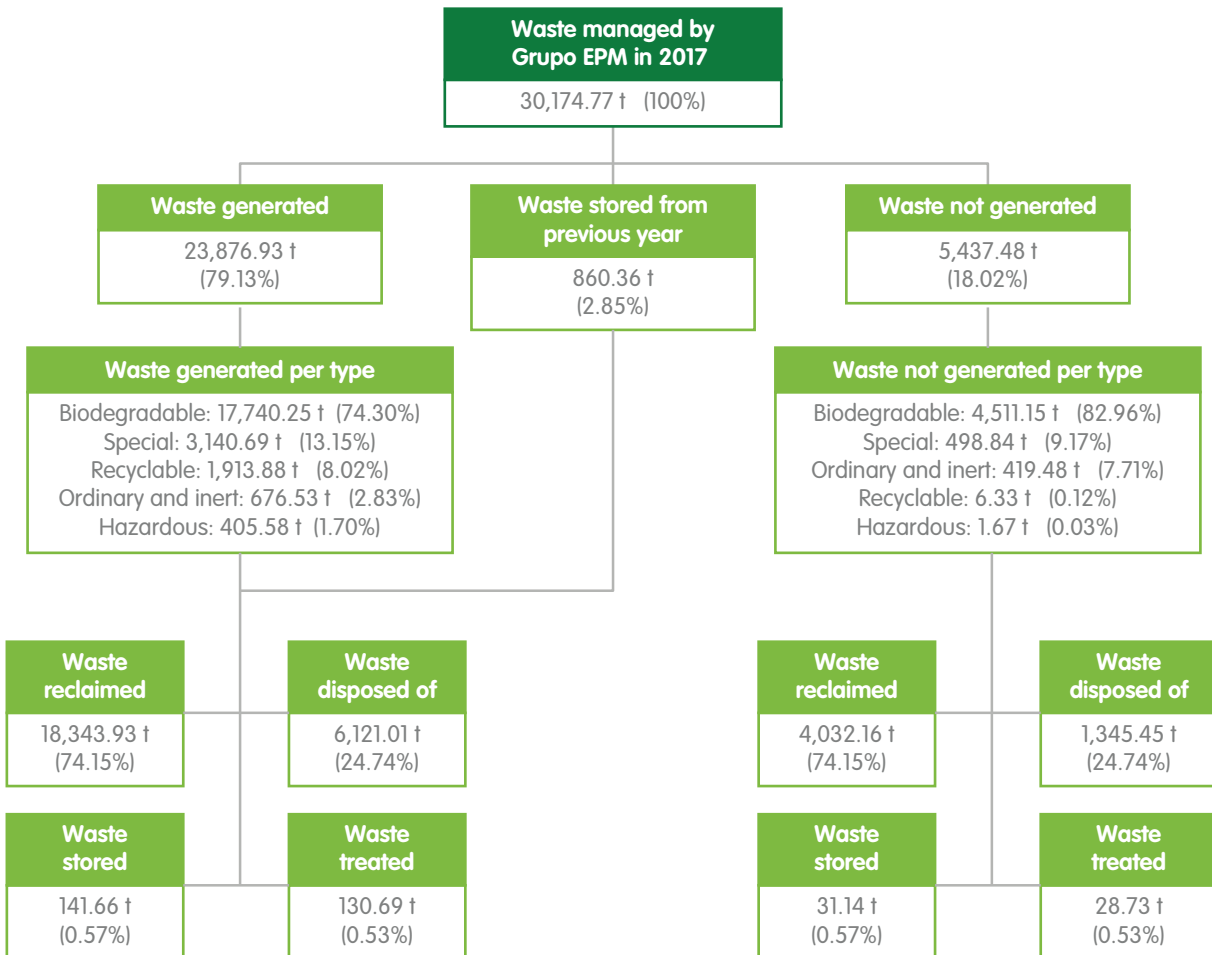
ESSA economically assessed and commercialized over 90% of solid waste generated through auctions. It obtained an income of COP 559 million.

By the end of 2017, Emvarias implemented a pilot project of selective collection of reclaimable waste to commercialize it and return it to the production line. Thus, the disposal of 200 m<sup>3</sup> in the landfill is avoided, the service life is extended, and the extraction of different raw material is avoided.

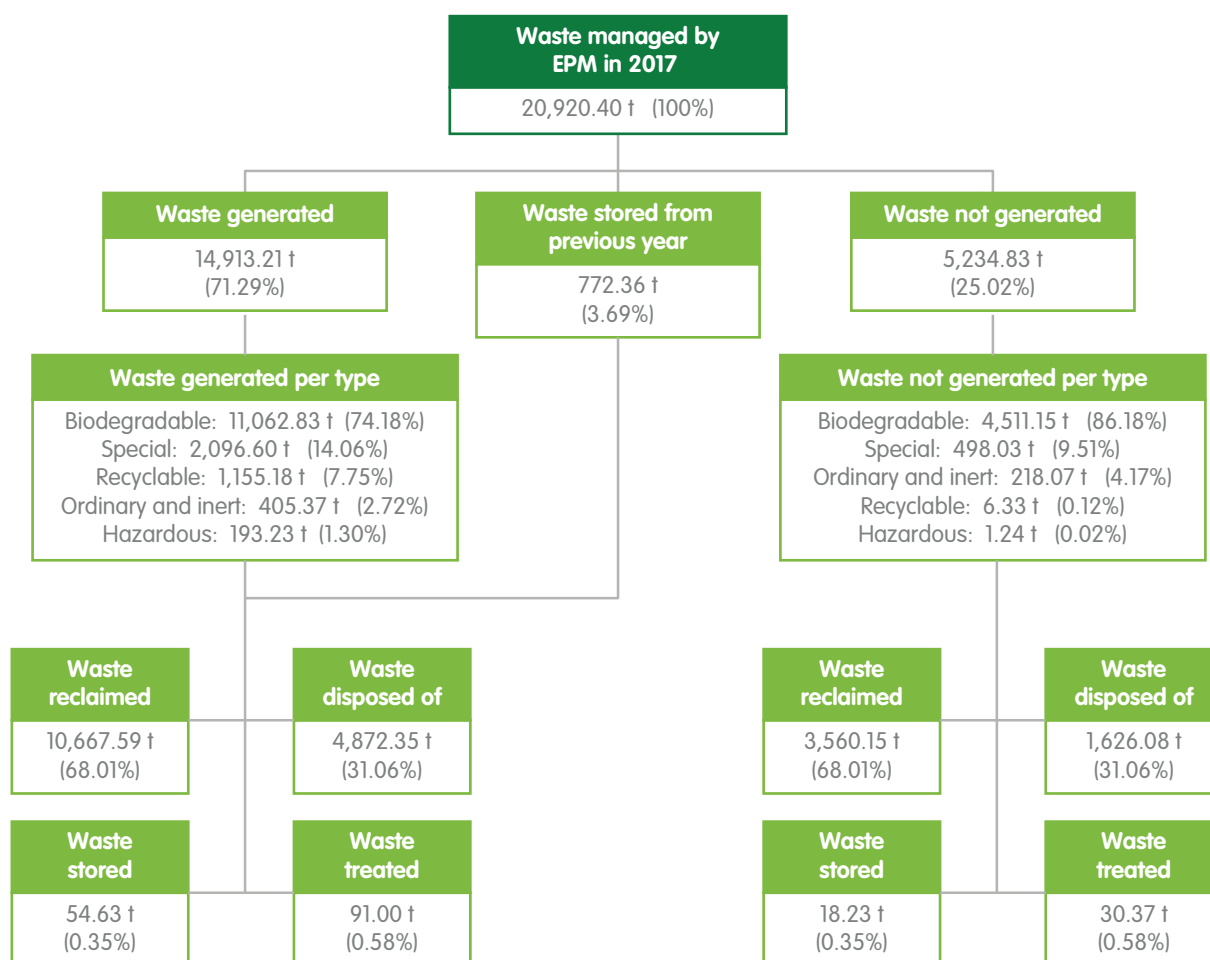
In 2017, waste generation in Grupo EPM was 23,876.93 t (the 860,36 t that had been stored since 2016 is not included in this value). Only 405.58 t (1.70%) is hazardous waste. Additionally, the group took on the management of 5,437.48 t of timber and water plants removed from reservoirs, grids, and clarifiers of treatment plants, accounting for 18.02% of the waste managed.

EPM makes ecological bricks (PET bottles filled with metalized film packagings) for the construction of basic infrastructure in rural areas. Power distribution companies made progress in the sampling and inventory of transformers, the replacement of contaminated equipment, and the treatment of oils with PCB content of over 50 ppm. Delsur recycles meter and metallic parts to turn them into handicrafts. Aguas de Malambo reclaims the sludge of the DWTP for stabilization in catchment.

Other companies carry out collaborative actions with third parties oriented towards waste management: EPM managed 230.92 t of recyclable material through an agreement with RECIMED, accounting an income for it of COP 78.86 million. Delsur strengthens the knowledge of technicians in the management of oils polluted with PCB, and seeks to recycle paper waste through an agreement with Kimberly Clark. ENSA signs agreements for the management of recyclable waste and hazardous waste ESSA joins efforts with local governments of several municipalities to develop the social and environmental project for solid waste management in educational centers.



Source: Idsos application



Source: Idsos application

| Waste generated (t) - Grupo EPM |               |               |               |
|---------------------------------|---------------|---------------|---------------|
| Type of waste                   | 2015          | 2016          | 2017          |
| Biodegradable                   | 12,631        | 16,935        | 17,740        |
| Special                         | 1,413         | 2,311         | 3,141         |
| Recyclable                      | 2,814         | 1,828         | 1,914         |
| Ordinary and inert              | 1,171         | 555           | 677           |
| Hazardous                       | 1,159         | 294           | 406           |
| <b>Total</b>                    | <b>19,188</b> | <b>21,923</b> | <b>23,877</b> |

Source: Idsos application

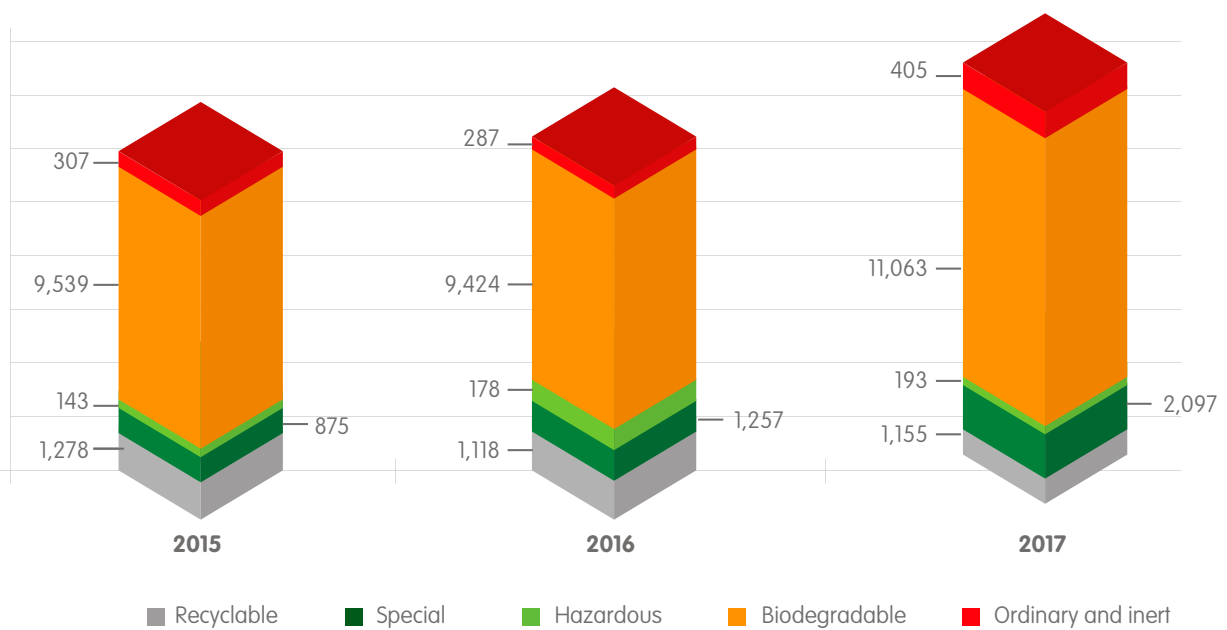
Waste from Adasa, Ticsa, EPM Chile, and HET is included. Emvarias reported waste in 2016 but not in 2017. For this reason, the figures presented are not strictly comparable.

62.46% of waste generated by the group corresponds to EPM.

74.30% of the waste generated by Grupo EPM corresponds to biodegradable waste; 13.15%, to special waste (electrical and electronic equipment, debris, tires, and nonhazardous sludge); 8.02%, to nonhazardous recyclable waste; 2.83%, to ordinary and inert waste; and only 1.70%, to hazardous waste.

Waste generation in Grupo EPM increased by 8.91% compared to 2016. The increase in biodegradable waste is explained because most power distribution companies (ENSA, Eegsa, EDEQ, Delsur) started to report generation of reclaimable vegetable waste, product of felling and pruning of trees. The increase in special waste is due, among other reasons, to the management of waste stored since previous years. The increase in recyclable waste is explained by the initiatives of electronic document management.

**Waste generated (t) - EPM**



Source: Idsos application



EPM generated 14,913.21 t of waste, 21.61% more than the previous year. Special waste increased by 66.85% and ordinary and inert waste increased by 41.43%. Biodegradable waste accounts for 74.18% of the waste generated, while hazardous waste only accounts for 1.30% of the waste generated.

The increase in waste generated is explained, among other reasons, by the generation of scrap and aluminum—due to the modernization of power stations, medical centers, and camps—, the dismantling of some power generation facilities, and the execution of works in different headquarters. The increase in hazardous waste responds to the incident of the Playas power station.

EPM's annual goals for the 2017-2019 period consist in keeping the annual amount of hazardous waste generated below 190 tons and below 1.50% of the total waste generated.

| <b>Management of waste generated (t) - Grupo EPM</b> |               |               |               |
|------------------------------------------------------|---------------|---------------|---------------|
| <b>Management</b>                                    | <b>2015</b>   | <b>2016</b>   | <b>2017</b>   |
| Reclamation                                          | 15,146        | 16,590        | 18,344        |
| Final disposal                                       | 3,549         | 4,466         | 6,121         |
| Storage for later management                         | 191           | 846           | 142           |
| Treatment                                            | 522           | 177           | 131           |
| <b>Total</b>                                         | <b>19,408</b> | <b>22,079</b> | <b>24,737</b> |

Source: Idsos application

Grupo EPM managed 24,737.29 t of waste generated in 2017, including 860.36 t that was stored since the previous year. 74.15% of waste was reclaimed, and 24.74% was submitted to final disposal.

The waste submitted to final disposal increased by 37.05%. The 141.66 t of waste stored to be managed in a later period include 102.41 t of waste, substances, and items containing or contaminated with PCB (in a concentration greater than or equal to 50 ppm).

The waste stored for later management correspond mainly to equipment and transformers, possibly containing PCB, and street light fixtures. Reclaimable waste increased at the national water affiliates because of the implementation of different actions described in the integrated solid waste management plans.

| <b>Management of waste generated (t) - EPM</b> |               |               |               |
|------------------------------------------------|---------------|---------------|---------------|
| <b>Management</b>                              | <b>2015</b>   | <b>2016</b>   | <b>2017</b>   |
| Reclamation                                    | 9,779         | 8,158         | 10,668        |
| Final disposal                                 | 2,436         | 3,570         | 4,872         |
| Storage for later management                   | 55            | 96            | 91            |
| Treatment                                      | 94            | 520           | 55            |
| <b>Total</b>                                   | <b>12,364</b> | <b>12,344</b> | <b>15,686</b> |

**Source:** *Idsos application*

EPM managed 15,685.57 t of waste generated in 2017, including 772.36 t that was stored since the previous year. 68.01% of waste was reclaimed, and 31.06% was submitted to disposal.

The reclaimed waste increased 30.77% and the waste submitted to final disposal increased 36.49%. The waste stored to be managed in 2018 corresponds mainly to wood and nonhazardous sludge.

The Ituango Hydroelectric Project reclaimed 100% of the biodegradable waste generated in compost, which is then used in gardening activities. 94% of the recyclable nonhazardous waste was reclaimed. The remaining 6% was stored to be reclaimed in 2018. The area of the project has a landfill, authorized through environmental license, where disposal of all ordinary and inert waste takes place.

EPM's annual goals for the 2017-2019 period consist in keeping the annual amount of disposable waste below 4,000 tons, keeping the annual amount of waste submitted to final disposal below 35% of the total waste generated, and keeping the annual amount of reclaimed waste above 60% of the waste generated.

| Management of hazardous waste generated (t) - Grupo EPM |              |            |            |
|---------------------------------------------------------|--------------|------------|------------|
| Type of management                                      | 2015         | 2016       | 2017       |
| Treatment                                               | 515          | 165        | 149        |
| Final disposal                                          | 48           | 40         | 122        |
| Reclamation                                             | 503          | 90         | 118        |
| Storage for later management                            | 89           | 87         | 102        |
| <b>Total</b>                                            | <b>1,154</b> | <b>382</b> | <b>491</b> |

Source: Idsos application

30.28% of hazardous waste was treated, and 20.85% was stored for later management. The main generating sources were EPM (39.75%), Delsur (20.55%) and CENS (14.54%).

The generation of hazardous waste increased by 28.65%. 65.32% of the hazardous waste generated was solid and liquid mineral oils, mixtures of water and oil or hydrocarbon and water, substances with PCB, and bottles and containers with hazardous substance waste. In 2017, CENS and EPM's transmission and distribution business transported across borders 40.26 t of hazardous waste containing mainly PCB.

| Management of hazardous waste generated (t) - EPM |            |            |            |
|---------------------------------------------------|------------|------------|------------|
| Type of management                                | 2015       | 2016       | 2017       |
| Treatment                                         | 54         | 96         | 119        |
| Reclamation                                       | 69         | 67         | 56         |
| Final disposal                                    | 8          | 19         | 10         |
| Storage for later management                      | 13         | 4          | 5          |
| <b>Total</b>                                      | <b>143</b> | <b>186</b> | <b>191</b> |

Source: Idsos application

Of the 190.84 t of hazardous waste, 62.61% was treated and 29.51% was reclaimed. 10.20 t was submitted to final disposal.

71.69% of the waste generated was solid and liquid mineral oils and mixtures of water and oil or hydrocarbon and water.

EPM transported across borders 40.21 t of hazardous waste, which corresponds mainly to substances with PCB. The waste was submitted to an authorized manager.

| Management of waste not generated (t) - Grupo EPM |              |              |              |
|---------------------------------------------------|--------------|--------------|--------------|
| Type of management                                | 2015         | 2016         | 2017         |
| Reclamation                                       | 2,084        | 4,019        | 4,032        |
| Final disposal                                    | 911          | 1,546        | 1,345        |
| Storage for later management                      | 25           | 213          | 31           |
| Treatment                                         | 9            | 14           | 29           |
| <b>Total</b>                                      | <b>3,029</b> | <b>5,792</b> | <b>5,437</b> |

Source: *Idsos application*

The information reported corresponds only to EPM, CHEC, and ENSA. Of the 5,437.48 t of waste that is not generated by Grupo EPM—but managed by it—, 65.41% corresponds to wood and 17.33% to aquatic plants (macrophytes) extracted, mainly, from the reservoirs of the Porce II and Porce III power stations, that receive the waters of the Medellín river after flowing through Valle de Aburrá, where there is an increased population density in the department of Antioquia. 96.27% of this waste is reported by EPM.

## GRI Standards and EPM indicators

**306-2** Waste by type and disposal method.

**306-4** Transport of hazardous waste.

## Other consumptions and efficient practices

It includes actions focused on the optimization of consumption, the efficient use of materials and supplies, and the minimization of environmental effects caused by their use within Grupo EPM.

The most representative elements of consumption within Grupo EPM are the water purification supplies, the dielectric oil used in energy generation, transmission, and distribution, and the paper used for administrative purposes.

These actions seek to raise Grupo EPM people's awareness about reducing, reusing, and recycling different supplies, when feasible, as well as getting the optimal dosage of the chemicals used for water purification, without having an impact on the quality of the public utilities provided.

### Management in 2017

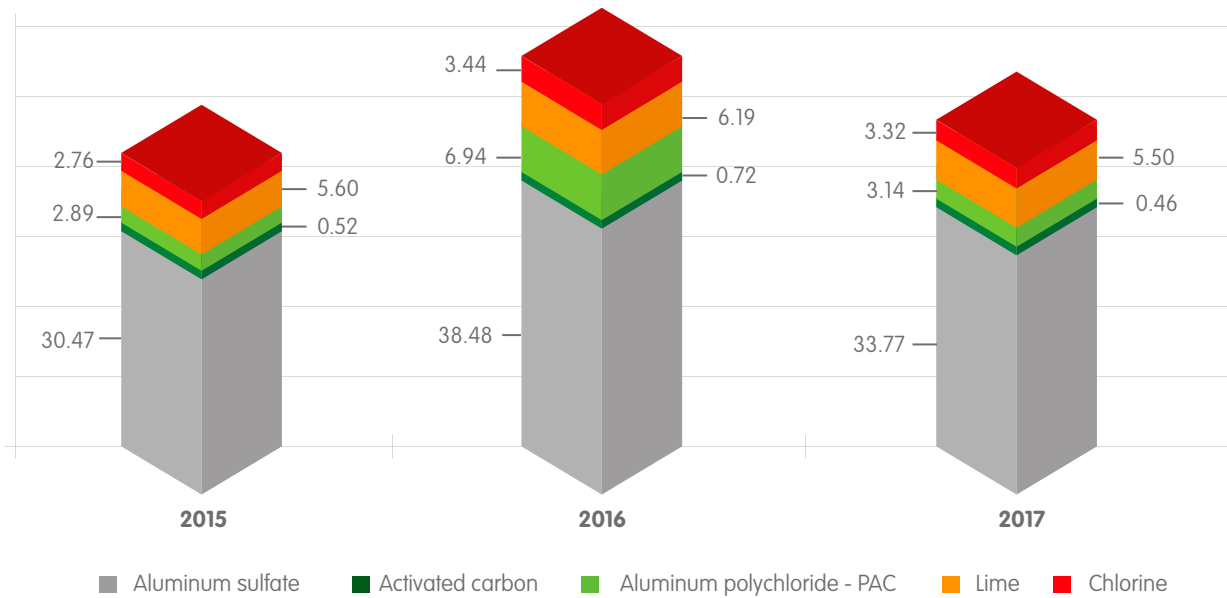
EPM made progress in the program of Integrated Management of Used Oils at the power generation stations' mechanical rooms. The company's objective is to recover the hydraulic oils used in equipment maintenance through dialysis. This is a physical process in which the oil is heated up to temperatures of 100 °C and exposed to vacuum pressures of 27 inHg, using a thermal vacuum chamber or a mobile oil dialyzer. In 2017, EPM developed a pilot project in one of the power stations to reduce the annual oil consumption in over 1,700 gallons; the project created a stock of over 1,300 gallons of oil treated returning to the process. It is calculated that it will not be necessary to buy oil in the next four years for that power station.

Several companies of the group implement actions to reduce the use of paper: the electronic document management, the reduction of document reprography, the reduction of printed documents, the document scanning, the control of printers to limit their use, the use of applications to share documents through the cloud, the creation of document inventories in electronic media, and the online communication of the payroll payment, among others.

Thanks to the acquisition of equipment for the regeneration of dielectric oils generated as waste in power generation, transmission, and distribution, it is expected that the consumption of fres oil tends to decrease.

Although the different companies of Grupo EPM are working on various initiatives aimed at optimizing the use of raw materials and resources in their operations, the quantitative assessment of the environmental, social, and economic effects is still incipient.

### Water purification supplies (t/Mm<sup>3</sup>) - Grupo EPM

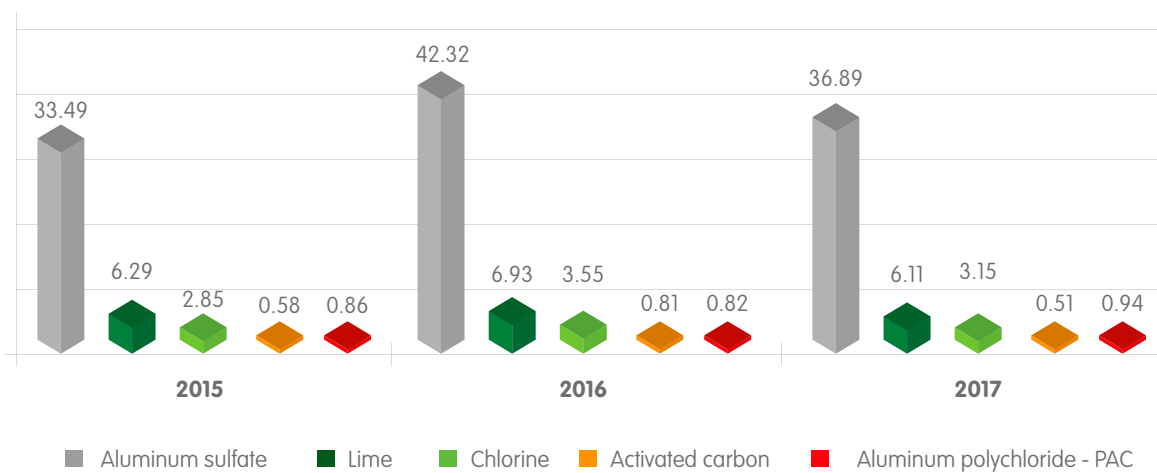


Source: Idsos application

The amount of water purification supplies depends on the quality of the sources. Activated carbon removes compounds that give odor, color, and flavor. Lime stabilizes pH, and both polychloride and aluminum sulfate act as coagulants.

Supplies decreased by 17.17% in 2017. Aluminum sulfate accounts for 73.11% of the total supplies used, followed by lime (11.91%).

### Water purification supplies (t/Mm<sup>3</sup>) - EPM



Source: Idsos application

The amount of supplies used for water purification in EPM decreased by 12.13% in 2017. The greatest decrease was for activated carbon (36.73%).

Aluminum sulfate accounts for 77.50% of the consumption of different water purification supplies; it is followed by lime with 12.84%, which shows a behavior similar to that of the previous year.

| Dielectric oil consumption (t) - Grupo EPM |                           |               |              |               |
|--------------------------------------------|---------------------------|---------------|--------------|---------------|
| Detail                                     |                           | 2015          | 2016         | 2017          |
| Fresh oil required in                      | Existing infrastructure   | 203.11        | 52.73        | 165.99        |
|                                            | New projects or equipment | 0.00          | 0.00         | 188.31        |
| <b>Total</b>                               |                           | <b>203.11</b> | <b>52.73</b> | <b>354.29</b> |
| Reused filtered oil                        |                           | 86.96         | 51.86        | 224.71        |
| Percentage of reuse                        |                           | 42.81%        | 98.35%       | 63.43%        |

Source: Idsos application

The Ituango project is included for the first time; the consumption for the previous year reported by EPM, CHEC, and Delsur is also included. Information from other power distribution affiliated companies was not available by the time this document was prepared.

Fresh dielectric oil consumption increased significantly in Grupo EPM. 45.19% of the fresh oil corresponds to the installation of transformers required for power generation at the Hidroituango power station. As all generation units (eight in total) are gradually installed, consumption increases.

Although the amount of reused filtered oil increased, the reuse percentage decreased compared to 2016.

| Dielectric oil consumption (t) - EPM |                           |               |              |               |
|--------------------------------------|---------------------------|---------------|--------------|---------------|
| Detail                               |                           | 2015          | 2016         | 2017          |
| Fresh oil required in                | Existing infrastructure   | 198.96        | 49.26        | 160.13        |
|                                      | New projects or equipment | 0.00          | 0.00         | 188.31        |
| <b>Total</b>                         |                           | <b>198.96</b> | <b>49.26</b> | <b>348.44</b> |
| Reused filtered oil                  |                           | 86.96         | 44.50        | 220.72        |
| Percentage of reuse                  |                           | 43.71%        | 90.33%       | 63.35%        |

Source: Idsos application

EPM increased fresh dielectric oil consumption in 2016. 54.04% of the fresh oil corresponds to the installation of transformers required for power generation at the Hidroituango power station. The internal process of oil regeneration favored the recovery of 63.35% of the oil required for the operation.

EPM uses 83.61% of the dielectric oil required in the group.

### GRI Standards and EPM indicators

- 301-1** Materials used by weight or volume.
- 301-2** Recycled input materials used.





**Financial  
management**

**Grupo·epm<sup>®</sup>**





**EPM**  
Financial Report

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**Empresas Públicas de Medellín E.S.P.**

**Separated Financial Statements and Notes  
December 31, 2017 and 2016**

## INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of  
EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. (EPM):

### Identification of the financial statements subject to audit

We have audited the accompanying financial statement of EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P., which comprise the statements of financial position as of December 31, 2017, the statement of income and other comprehensive income, of changes in shareholders' net equity and of cash flows for the year ended on that date, and a summary of significant accounting policies and other explanatory notes.

### Responsibility of the Company's management for the financial statements

Management is responsible for the preparation and fair presentation of the these financial statements in accordance with International Financial Reporting Standards adopted in Colombia by the General Accounting Office of the Nation, and for the internal control that management considers relevant for the preparation and accurate presentation of the financial statements free from material misstatements, whether due to fraud or error; select and apply the appropriate accounting policies; as well as make accounting estimates that are reasonable in the circumstances.

### Auditor's Responsibility

Our responsibility is to express an opinion on the accompanying financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing accepted in Colombia. Those standards require that we comply with ethical requirements, and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence that we have obtained is sufficient and appropriate to provide a basis for my audit opinion.

**Opinion**

In our opinion, the accompanying financial statements referred above, taken from the accounting books, present fairly, in all material respects, the financial position of EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. as of December 31, 2017, the results of its operations and its cash flows for the year ended on that date, in conformity with International Financial Reporting Standards adopted in Colombia by the General Accounting Office of the Nation.

**Other matters**

The financial statements as of December 31, 2016 are included for comparative purposes only, were audited and we expressed our opinion on them without qualifications on March 14, 2017.



DELOITTE & TOUCHE LTDA.  
March 20, 2018.

## Certification of the legal representative and accountant of EPM

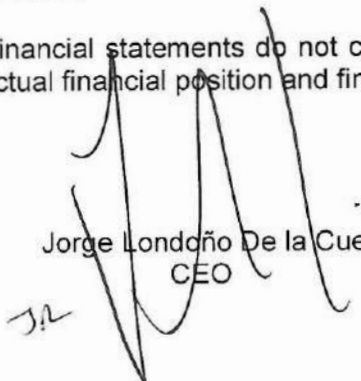
March 20, 2018

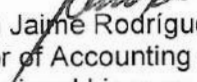
Board of Directors  
Empresas Públicas de Medellín E.S.P.

The undersigned legal representative and accountant of Empresas Públicas de Medellín E.S.P. certify that the balances of the financial statements of Empresas Públicas de Medellín E.S.P. as of December 31, 2017 and 2016, were faithfully taken from the accounting books, which are made in accordance with the International Financial Reporting Standards (IFRS), published for and applicable to the period and included into the Public Accounting System, and that the information reflects the financial, economic, social, and environmental situation and operation of Empresas Públicas de Medellín E.S.P. in a reliable manner; furthermore, they note that, for their preparation, the assertions appearing on the aforementioned financial statements were verified, regarding:

- a) All the transactions that have been made in the covered years have been accurately registered on the respective periods, pursuant to the appropriate acknowledgement of the proper quantities and accounts, and measured by the reasonable costs and appropriately revealed.
- b) All the assets, liabilities, and net equity of the financial statements reflect the existence of rights and obligations of Empresas Públicas de Medellín E.S.P.
- c) The disclosures or accounting notes were prepared with clarity and in accordance with the IFRS.

The financial statements do not contain defects, inaccuracies, or errors that may prevent the actual financial position and financial performance of the entity from being known.

  
Jorge Londoño De la Cuesta  
CEO

  
John Jaime Rodríguez Sosa  
Director of Accounting and Costs  
Professional License: 144842-T

*estamos ahí.*



EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P.  
**SEPARATE STATEMENT OF FINANCIAL POSITION**  
 At Years ended as of December 31, 2017 and 2016  
 Amounts stated in millions of Colombian pesos

|                                      | Notes | 2017              | 2016              |
|--------------------------------------|-------|-------------------|-------------------|
| <b>Assets</b>                        |       |                   |                   |
| <b>Non current assets</b>            |       |                   |                   |
| Properties, plant and equipment, net | 4     | 23,133,509        | 20,729,952        |
| Investment properties                | 5     | 116,823           | 116,628           |
| Goodwill                             | 6     | 260,950           | 260,950           |
| Other intangible assets              | 6     | 401,980           | 277,110           |
| Investments in subsidiaries          | 8     | 6,823,153         | 6,043,104         |
| Investments in associates            | 9     | 2,434,417         | 2,434,417         |
| Investments in a joint ventures      | 10    | 99                | 99                |
| Trade and other receivables          | 11    | 2,006,350         | 1,961,386         |
| Other financial assets               | 12    | 2,029,035         | 1,522,810         |
| Other assets                         | 15    | 99,130            | 87,717            |
| <b>Total non current assets</b>      |       | <b>37,305,446</b> | <b>33,434,173</b> |
| <b>Current assets</b>                |       |                   |                   |
| Inventories                          | 16    | 116,484           | 115,080           |
| Trade and other receivables          | 11    | 1,523,523         | 1,365,826         |
| Current tax assets                   | 37    | 237,389           | -                 |
| Other financial assets               | 12    | 63,024            | 379,000           |
| Other assets                         | 15    | 100,568           | 86,953            |
| Cash and cash equivalents            | 17    | 234,526           | 519,078           |
| <b>Total Current assets</b>          |       | <b>2,275,514</b>  | <b>2,465,937</b>  |
| <b>Total assets</b>                  |       | <b>39,580,960</b> | <b>35,900,110</b> |
| <b>Liabilities and Equity</b>        |       |                   |                   |
| <b>Equity</b>                        |       |                   |                   |
| Capital issued                       |       | 67                | 67                |
| Reserves                             | 18    | 2,951,644         | 3,087,207         |
| Other comprehensive income           | 19    | 2,926,924         | 2,378,296         |
| Retained earnings                    | 18    | 13,381,162        | 12,932,194        |
| Profit for the year                  | 18    | 2,188,189         | 1,834,792         |
| Other components of equity           |       | 49,995            | 51,626            |
| <b>Total equity</b>                  |       | <b>21,497,981</b> | <b>20,284,182</b> |

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EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P.  
**SEPARATE STATEMENT OF FINANCIAL POSITION**

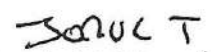
At Years ended as of December 31, 2017 and 2016


Amounts stated in millions of Colombian pesos

|                                        | Notes | 2017              | 2016              |
|----------------------------------------|-------|-------------------|-------------------|
| <b>Liabilities</b>                     |       |                   |                   |
| <b>Non current liabilities</b>         |       |                   |                   |
| Credits and loans                      | 20    | 10,462,487        | 9,532,101         |
| Trade and other payables               | 21    | 15,953            | 30,275            |
| Other financial liabilities            | 22    | 488,247           | 480,593           |
| Employee benefits                      | 25    | 282,697           | 254,884           |
| Deferred tax liabilities               | 37    | 2,321,376         | 1,987,819         |
| Provisions                             | 27    | 279,922           | 209,296           |
| Other liabilities                      | 28    | 32,499            | 33,041            |
| <b>Total non current liabilities</b>   |       | <b>13,883,181</b> | <b>12,528,009</b> |
| <b>Current liabilities</b>             |       |                   |                   |
| Credits and loans                      | 20    | 1,984,843         | 1,288,588         |
| Trade and other payables               | 21    | 1,363,774         | 863,575           |
| Other financial liabilities            | 22    | 308,881           | 304,518           |
| Employee benefits                      | 25    | 131,817           | 116,625           |
| Current tax liabilities                | 37    | -                 | 55,665            |
| Taxes, contributions and rates payable | 26    | 104,078           | 97,472            |
| Provisions                             | 27    | 172,173           | 220,762           |
| Other liabilities                      | 28    | 134,232           | 140,714           |
| <b>Total current liabilities</b>       |       | <b>4,199,798</b>  | <b>3,087,919</b>  |
| <b>Total liabilities</b>               |       | <b>18,082,979</b> | <b>15,615,928</b> |
| <b>Total liabilities and equity</b>    |       | <b>39,580,960</b> | <b>35,900,110</b> |

The notes 1 to 43 are an integral part of these separate financial statements

  
Jorge Londoño De la Cuesta  
Chief Executive Officer

  
Jorge Andrés Tabares Ángel  
Chief Financial Officer

  
John Jaime Rodríguez Sosa  
Accountant  
T.P. 144842-T




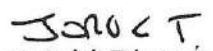


EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P.  
**SEPARATE STATEMENT OF COMPREHENSIVE INCOME**  
 For the year ended 31 december 2017 and 2016  
 Amounts stated in millions of Colombian pesos

|                                                                                             | Notes   | 2017             | 2016             |
|---------------------------------------------------------------------------------------------|---------|------------------|------------------|
| <b>Continuing operations</b>                                                                |         |                  |                  |
| Rendering of services                                                                       | 29      | 7,097,643        | 7,000,077        |
| Leases                                                                                      | 29      | 48,277           | 35,907           |
| Other revenues                                                                              | 30      | 275,833          | 1,388,223        |
| <b>Revenues from ordinary activities</b>                                                    |         | <b>7,421,753</b> | <b>8,424,207</b> |
| Profit in sale of assets                                                                    | 29      | 1,040            | 38,750           |
| <b>Total revenues</b>                                                                       |         | <b>7,422,793</b> | <b>8,462,957</b> |
| Cost of sales                                                                               | 31      | (3,970,570)      | (5,316,727)      |
| Administration expenses                                                                     | 32      | (838,204)        | (910,811)        |
| Impairment loss recognised on trade receivables                                             | 11      | (37,503)         | (63,196)         |
| Other expenses                                                                              | 33      | (43,168)         | (82,333)         |
| Financial income                                                                            | 34.1    | 262,250          | 267,457          |
| Financial expenses                                                                          | 34.2    | (797,778)        | (680,980)        |
| Net exchange difference                                                                     | 35      | 64,671           | 227,779          |
| Share of profit of an subsidiaries                                                          | 8       | 532,059          | 299,737          |
| Dividends on equity instruments                                                             | 36      | 76,846           | 32,457           |
| <b>Profit before tax</b>                                                                    |         | <b>2,671,396</b> | <b>2,236,340</b> |
| Income tax expense                                                                          | 37      | (483,207)        | (401,548)        |
| <b>Profit for the year after taxes of continuing operations</b>                             | 18      | <b>2,188,189</b> | <b>1,834,792</b> |
| <b>Profit for the year</b>                                                                  | 18      | <b>2,188,189</b> | <b>1,834,792</b> |
| <b>Other comprehensive income, net of taxes</b>                                             |         |                  |                  |
| <b>Items that will not be reclassified subsequently to profit or loss:</b>                  |         |                  |                  |
| Remeasurement of defined benefit plans                                                      | 19 y 37 | (18,735)         | (36,268)         |
| Investment revaluation reserve for equity instruments at FVTOCI                             | 19 y 37 | 475,220          | 554,390          |
| Reclassification of properties, plant and equipment to investment properties                | 19 y 37 | -                | 9,700            |
| Income tax relating to items that will not be reclassified subsequently to profit or loss   | 19 y 37 | (35,160)         | (91,167)         |
| Share of other comprehensive income of subsidiaries                                         | 19 y 37 | 114,254          | (93,153)         |
|                                                                                             |         | <b>535,579</b>   | <b>343,502</b>   |
| <b>Items that may be reclassified subsequently to profit or loss:</b>                       |         |                  |                  |
| <b>Cash flow hedges</b>                                                                     | 19 y 37 | <b>(5,142)</b>   | <b>(23,738)</b>  |
| Losses arising during the year                                                              |         | (93,080)         | (70,669)         |
| Reclassification of losses to profit or loss                                                |         | 87,938           | 46,931           |
| <b>Income tax relating to items that may be reclassified subsequently to profit or loss</b> | 19 y 37 | <b>8,377</b>     | <b>11,834</b>    |
| Results arising during the year                                                             |         | 8,377            | 11,834           |
| <b>Share of other comprehensive income of subsidiaries</b>                                  | 19 y 37 | <b>10,238</b>    | <b>(137,331)</b> |
| Results arising during the year                                                             |         | 10,238           | (137,437)        |
| Reclassification of results to profit or loss                                               |         | -                | 106              |
|                                                                                             |         | <b>13,473</b>    | <b>(149,235)</b> |
| <b>Other comprehensive income, net of taxes</b>                                             | 37      | <b>549,052</b>   | <b>194,267</b>   |
| <b>Total comprehensive income for the year</b>                                              |         | <b>2,737,241</b> | <b>2,029,059</b> |

The notes 1 to 43 are an integral part of these separate financial statements

  
 Jorge Londoño De la Cuesta  
 Chief Executive Officer

  
 Jorge Andrés Tabares Ángel  
 Chief Financial Officer

  
 John Jaime Rodríguez Sosa  
 Accountant  
 T.P. 144842-T

## SEPARATE STATEMENTS OF CHANGES IN THE EQUITY

For the year ended 31 december 2017 and 2016

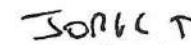
Amounts stated in millions of Colombian pesos

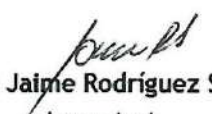


|                                                        | Other comprehensive income |                       |                                   |                                  |                                                                                       |                                                           |                               |                                                                                                    |                                                                           | Total       |
|--------------------------------------------------------|----------------------------|-----------------------|-----------------------------------|----------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------|
|                                                        | Capital issued             | Reserves<br>(Note 18) | Retained<br>earnings<br>(Note 18) | Other<br>components of<br>equity | Investment<br>revaluation reserve<br>for equity instruments<br>at FVTOCI<br>(Note 19) | Remeasurement of<br>defined benefit<br>plans<br>(Note 19) | Cash flow hedges<br>(Note 19) | Reclassification of<br>properties, plant and<br>equipment to<br>investment properties<br>(Note 19) | Share of other<br>comprehensive<br>income of<br>subsidiaries<br>(Note 19) |             |
| Balance as of January 1, 2016 (as previously reported) | 67                         | 3,452,499             | 13,056,702                        | 58,312                           | 1,762,516                                                                             | 21,233                                                    | -                             | 3,335                                                                                              | 863,491                                                                   | 19,218,155  |
| Impact of adoption IFRS 9 as of January 1, 2016        | -                          | -                     | (69,278)                          | -                                | -                                                                                     | -                                                         | -                             | -                                                                                                  | -                                                                         | (69,278)    |
| Balance as of January 1, 2016 Restated                 | 67                         | 3,452,499             | 12,987,424                        | 58,312                           | 1,762,516                                                                             | 21,233                                                    | -                             | 3,335                                                                                              | 863,491                                                                   | 19,148,877  |
| Profit for the year                                    | -                          | -                     | 1,834,792                         | -                                | -                                                                                     | -                                                         | -                             | -                                                                                                  | -                                                                         | 1,834,792   |
| Other comprehensive income, net of taxes               | -                          | -                     | -                                 | -                                | 446,408                                                                               | (18,497)                                                  | (11,904)                      | 8,744                                                                                              | (230,484)                                                                 | 194,267     |
| Total comprehensive income for the year                | -                          | -                     | 1,834,792                         | -                                | 446,408                                                                               | (18,497)                                                  | (11,904)                      | 8,744                                                                                              | (230,484)                                                                 | 2,029,059   |
| Surpluses and dividends declared                       | -                          | -                     | (816,521)                         | -                                | -                                                                                     | -                                                         | -                             | -                                                                                                  | -                                                                         | (816,521)   |
| Movement of reserves                                   | -                          | (365,292)             | 365,292                           | -                                | -                                                                                     | -                                                         | -                             | -                                                                                                  | -                                                                         | -           |
| Transfers to retained earnings                         | -                          | -                     | 466,447                           | -                                | (466,447)                                                                             | -                                                         | -                             | -                                                                                                  | -                                                                         | -           |
| Share of other comprehensive income of subsidiaries    | -                          | -                     | (70,448)                          | (6,686)                          | -                                                                                     | -                                                         | -                             | -                                                                                                  | (99)                                                                      | (77,233)    |
| Balance as of December 31, 2016                        | 67                         | 3,087,207             | 14,766,986                        | 51,626                           | 1,742,477                                                                             | 2,736                                                     | (11,904)                      | 12,079                                                                                             | 632,908                                                                   | 20,284,182  |
| Balance as of January 1, 2017                          | 67                         | 3,087,207             | 14,766,986                        | 51,626                           | 1,742,477                                                                             | 2,736                                                     | (11,904)                      | 12,079                                                                                             | 632,908                                                                   | 20,284,182  |
| Profit for the year                                    | -                          | -                     | 2,188,189                         | -                                | -                                                                                     | -                                                         | -                             | -                                                                                                  | -                                                                         | 2,188,189   |
| Other comprehensive income, net of taxes               | -                          | -                     | -                                 | -                                | 431,418                                                                               | (10,093)                                                  | 3,235                         | -                                                                                                  | 124,492                                                                   | 549,052     |
| Total comprehensive income for the year                | -                          | -                     | 2,188,189                         | -                                | 431,418                                                                               | (10,093)                                                  | 3,235                         | -                                                                                                  | 124,492                                                                   | 2,737,241   |
| Surpluses and dividends declared                       | -                          | -                     | (1,609,136)                       | -                                | -                                                                                     | -                                                         | -                             | -                                                                                                  | -                                                                         | (1,609,136) |
| Movement of reserves                                   | -                          | (135,563)             | 135,563                           | -                                | -                                                                                     | -                                                         | -                             | -                                                                                                  | -                                                                         | -           |
| Share of other comprehensive income of subsidiaries    | -                          | -                     | 14,621                            | (1,631)                          | -                                                                                     | -                                                         | -                             | -                                                                                                  | (424)                                                                     | 12,566      |
| Other movement of the year                             | -                          | -                     | 73,128                            | -                                | -                                                                                     | -                                                         | -                             | -                                                                                                  | -                                                                         | 73,128      |
| Balance as of December 31, 2017                        | 67                         | 2,951,644             | 15,569,351                        | 49,995                           | 2,173,895                                                                             | (7,357)                                                   | (8,669)                       | 12,079                                                                                             | 756,976                                                                   | 21,497,981  |

The notes 1 to 43 are an integral part of these separate financial statements

  
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Chief Executive Officer

  
Jorge Andrés Tabares Ángel  
Chief Financial Officer

  
John Jaime Rodríguez Sosa  
Accountant  
T.P. 144842-T



EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P.  
**SEPARATE STATEMENTS OF CASH FLOWS**  
 For the year ended 31 december 2017 and 2016  
 Amounts stated in millions of Colombian pesos

|                                                                                                             | Notes   | 2017               | 2016             |
|-------------------------------------------------------------------------------------------------------------|---------|--------------------|------------------|
| <b>Cash flows for operating activities:</b>                                                                 |         |                    |                  |
| <b>Profit for the year</b>                                                                                  |         | <b>2,188,189</b>   | <b>1,834,792</b> |
| <b>Adjustments to reconcile the profit for the year to the net cash flows used in operating activities:</b> |         | <b>1,289,269</b>   | <b>1,139,540</b> |
| Depreciation and amortization of properties, plant and equipment and intangible assets                      | 31 y 32 | 490,335            | 466,975          |
| Impairment of property, plant and equipment and intangibles                                                 | 31      | -                  | 628,519          |
| Impairment loss recognised on trade receivables                                                             | 11      | 37,503             | 63,196           |
| Reversal of loss of impairment of property, plant and equipment and intangible assets                       | 30      | -                  | (711,214)        |
| Reversal of impairment loss on trade receivables                                                            | 11      | (27,721)           | (4,681)          |
| Net foreign exchange differences                                                                            |         | 6,097              | (118,034)        |
| (Gain)/loss arising on changes in fair value of investment property                                         | 5       | (9,528)            | 12,484           |
| Result for valuation of financial instruments and hedge accounting                                          |         | 711,195            | 692,762          |
| Provisions, post-employment and long term defined benefit plans                                             |         | 177,087            | 118,596          |
| Deferred income tax                                                                                         | 37      | 306,775            | (4,956)          |
| Current income tax                                                                                          | 37      | 176,432            | 406,504          |
| Loss/(gain) on disposal of property, plant and equipment, intangibles and investment properties             |         | 17,375             | (23,493)         |
| Dividends from investments                                                                                  | 36      | (44,157)           | (32,433)         |
| Share of profit of an subsidiaries                                                                          | 8       | (532,059)          | (299,737)        |
| Result for business combination                                                                             | 36      | (32,669)           | -                |
| Other income and expenses not effective                                                                     |         | 12,604             | (54,948)         |
|                                                                                                             |         | <b>3,477,458</b>   | <b>2,974,332</b> |
| <b>Changes in:</b>                                                                                          |         |                    |                  |
| Inventories                                                                                                 |         | (1,404)            | (17,678)         |
| Trade and other receivables                                                                                 |         | (343,647)          | (221,520)        |
| Other assets                                                                                                |         | (647,430)          | (151,631)        |
| Trade and other payables                                                                                    |         | 776,789            | 135,619          |
| Employee benefits                                                                                           |         | 11,779             | 39,017           |
| Provisions                                                                                                  |         | (117,206)          | (63,400)         |
| Other liabilities                                                                                           |         | (53,233)           | 3,783            |
|                                                                                                             |         | <b>(374,352)</b>   | <b>(275,810)</b> |
| Interest paid                                                                                               |         | (853,437)          | (851,456)        |
| Income tax paid and equity tax                                                                              |         | (400,637)          | (301,063)        |
| <b>Net cash flows originated by operating activities</b>                                                    |         | <b>1,849,032</b>   | <b>1,546,003</b> |
| <b>Cash flows for investment activities:</b>                                                                |         |                    |                  |
| Net cash outflow on acquisition of subsidiaries                                                             |         | (295,493)          | (101,743)        |
| Restitution of capital and premium on placement of shares                                                   |         | -                  | 168,195          |
| Acquisition of property, plant and equipment                                                                |         | (2,739,285)        | (2,505,905)      |
| Proceeds from disposal of property, plant and equipment                                                     |         | -                  | 36,737           |
| Acquisition of intangible assets                                                                            |         | (48,691)           | (47,599)         |
| Acquisition of financial assets                                                                             |         | -                  | (417,417)        |
| Proceeds on sale of financial assets                                                                        |         | 261,893            | 1,479,911        |
| Dividends received from subsidiaries, associates and joint business                                         |         | 323,406            | 331,851          |
| Other dividends received                                                                                    |         | 44,157             | 32,433           |
| Loans to related parties                                                                                    |         | 113,190            | 55,829           |
| Other cash flows from investment activities                                                                 |         | -                  | 48,606           |
| <b>Net cash flows used by investment activities</b>                                                         |         | <b>(2,340,823)</b> | <b>(919,102)</b> |
| <b>Cash flows for financing activities:</b>                                                                 |         |                    |                  |
| Proceeds from loans and borrowings                                                                          |         | 4,262,524          | 2,158,104        |
| Repayments of loans and borrowings                                                                          |         | (2,741,526)        | (1,916,059)      |
| Transaction costs related to loans and borrowings                                                           |         | (8,363)            | (20,175)         |
| Payments of financial lease liabilities                                                                     |         | (906)              | (831)            |
| Dividends paid to owners of the Company                                                                     | 18      | (1,309,136)        | (816,521)        |
| Payments of capital of derivatives designated as cash flow hedge                                            |         | (12,384)           | -                |
| <b>Net cash flows originated (used) by financial activities</b>                                             | 24      | <b>190,209</b>     | <b>(595,482)</b> |
| <b>Net cash and cash equivalents decrease</b>                                                               |         | <b>(301,582)</b>   | <b>31,419</b>    |
| Effect of movements in exchange rates on cash held                                                          |         | 17,030             | 477              |
| Cash and cash equivalents at the beginning of the year                                                      |         | 519,078            | 487,182          |
| <b>Cash and cash equivalents at the end of the year</b>                                                     | 17      | <b>234,526</b>     | <b>519,078</b>   |
| Restricted resources                                                                                        | 17      | 116,250            | 130,059          |

The notes 1 to 43 are an integral part of these separate financial statements

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John Jaime Rodríguez Sosa  
 Accountant  
 T.P. 144842-T

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# Notes to the separate financial statements of Empresas Públicas de Medellín E.S.P for the periods ended on December 31, 2017 and 2016.

(Expressed in millions of Colombian pesos, except when indicated otherwise).

## Note 1. Reporting entity

Empresas Públicas de Medellín E.S.P. (hereinafter, "EPM" or "the Company") is the holding company of a multi-Latin enterprise group; Which, in accordance with International Financial Reporting Standards has as of December 31, 2016 a consolidation perimeter made up of 48 companies and a structured entity<sup>1</sup>; that have presence in the provision of public utilities in Colombia, Chile, El Salvador, Guatemala, Mexico and Panama.

EPM is a municipal decentralized entity created in Colombia through Decision 58 dated August 6, 1955 issued by the Administrative Council of Medellín, as an autonomous public institution. It was transformed into an industrial and commercial government company through Decision 069 of December 10, 1997 of the Medellín Council. Due to its juridical nature, EPM has administrative, and financial autonomy and its own equity according to Article 85 of Law 489 of 1998. The capital stock with which the company was constituted and operates with, as well as its equity, is of a public nature, and its only owner is the Municipality of Medellín. Its main corporate domicile is located at Carrera 58 No. 42-125 in Medellín, Colombia. It has not established a term of duration.

EPM provides domiciliary public services of aqueduct, sewage and gas distribution. It also can provide the domiciliary public utilities of cleaning, waste treatment and utilization, as well as the supplementary activities that are related to abovementioned of each and every public utility services. Likewise, it participates in the telecommunications business, a segment in which as of August 2014 it has significant influence, through UNE EPM Telecomunicaciones S.A. and its subsidiaries: Edatel S.A. E.S.P., Orbitel Servicios Internacionales S.A. - OSI, Cinco Telecom Corporation CTC and Colombia Móvil S.A. ; and Inversiones Telco S.A.S. and its subsidiary Emtelco S.A. ; offering voice , data, Internet, professional and data center services, among others. As of December 31, 2016, the Telecommunications Company of Pereira S.A. - ETP was merged with UNE EPM Telecomunicaciones S.A. (absorbing entity) and Orbitel Comunicaciones Latinoamericanas S.A. - OCL was liquidated.

The separate financial statements of EPM corresponding to the year ended on December 31, 2017 and 2016, were authorized by the Board of Directors for its publication on March 20, 2018.

### 1.1 Legal and regulatory framework

The activity performed by EPM, provision of domiciliary public services, is regulated in Colombia mainly by Law 142, Law of Public Services, and Law 143 of 1994, Electricity Law.

The functions of control, inspection and surveillance of the entities that provide domiciliary public services are exercised by the Superintendency of Public Utilities (SSPD, for its initials in Spanish).

Since it is a decentralized entity of municipal order, EPM is subject to the political control of the Council of Medellín, to the fiscal control of the General Comptroller of Medellín and to the disciplinary control of the Attorney General's Office.

### 1.2 Regulatory Commissions

Decree 1524 of 1994 delegates in the regulation commissions the presidential function of stating general policies of administration and control of efficiencies in domiciliary public utilities.

These entities are:

---

1. Autonomous Patrimony Social Financing. Under International Financial Reporting Standards (IFRS), it is considered a structured entity that forms part of the consolidation perimeter of the financial statements of the EPM Group.

- The Energy and Gas Regulatory Commission (CREG, for its Spanish initials), a technical body attached to the Ministry of Mines and Energy (MME), that regulates the tariffs for energy sales and the aspects related to the operation of the Wholesale Energy Market (MEM, for its initials in Spanish) and, more general, to the provision of electricity, gas and liquid fuel services.
- Regulatory Commission of Drinking Water and Basic Sanitation (CRA, for its initials in Spanish), regulates the tariffs of aqueduct, sewage and cleaning. It is a technical body attached to the Ministry of Housing, City and Territory.

### 1.2.1 Regulation by sector

#### 1.2.1.1 Activities of the aqueduct, sewage and waste management sector

Law 142, Public Utilities Act, defined the aqueduct, sewage and cleaning services:

**Aqueduct:** Also called drinking water domiciliary public utility. Activity consisting on the municipal distribution of water, which is fit for human consumption, including its connection and measurement. It includes complementary activities such as water catchment and its processing, treatment, storage, conduction and transportation.

**Sewage:** Activity that consists on the municipal collection of waste, mainly liquid, through piping and conduits. It includes the complementary activities of transportation, treatment, and final disposal of such waste.

**Waste management:** Activity that consists on the municipal collection of waste, mainly solid waste. It includes the complementary activities of transportation, treatment, utilization, and final disposal of such waste

The tariffs framework for these utilities is established in Resolutions CRA 688 of 2014 and CRA 735 of 2015 issued by the Potable Water and Basic Sanitation Regulation Commission - CRA, which make mandatory the fulfillment of both quality and coverage indicators and therefore the review of investments and operations in the two segments.

#### 1.2.1.2 Activities from the electric sector

Law 143 of 1994 segmented the electric power service into four activities: generation, transmission, distribution, and commercialization, which may be developed by independent companies. The purpose of the legal framework is to supply the demand of electricity under economic and financial feasibility criteria and tend to an efficient, secure and reliable operation of the sector.

**Generation:** It consists on the production of electric power from different sources (conventional or non-conventional), developing this activity either exclusively or combined with another or other activities of the electric sector, regardless of which of them is the main activity.

**Transmission:** The national transmission activity is the transportation of energy in the National Transmission System (STN, for its initials in Spanish). It encompasses the set of lines, with its corresponding connection equipment that operate in tensions that are equal or greater than 220 kV. The National Transmitter is the legal entity that operates and transports electric power in the STN or has incorporated a company the purpose of which is the development of such activity.

**Distribution:** It consists on transporting electric power through a set of lines and substations, with the associated equipment, that operate at tensions lower than 220 KV.

**Commercialization:** An activity that consists on the purchase of electric energy in the wholesale market and its sale to other market participants or to the final regulated and non-regulated users, developing this activity either exclusively or combined with other activities of the electric sector, regardless of which of them is the main activity.

#### 1.2.1.3 Activities of the natural gas sector

Law 142 of 1994 defined the legal framework for the provision of domiciliary public utilities, a scope in which natural gas is defined as a public service (utility).

**Gas:** It is the set of activities targeted to the distribution of fuel gas, through pipes or another mean, from a place of collection of large volumes or from a central gas pipeline to the facilities of a final consumer, including their connection and measurement. This Law will also be applied to the complementary activities of commercialization from the production and transportation of gas through a main gas pipeline, or through other means, from the generation site to that where it connects to a secondary network.

### 1.3 External audit

According to the Code of Good Corporate Governance, the external audit is established as a control mechanism, which purpose is to audit financial statements and accounting policies in accordance with international financial reporting standards, as well as the rendering of an independent opinion regarding the reasonableness with which they indicate the financial situation of the company at the end of each accounting period.

## Nota 2. Significant Accounting Policies

### 2.1 Bases for the preparation of the financial statements

The consolidated financial statements of EPM Group are prepared in conformity with the International Financial Reporting Standards (hereinafter, IFRS) and the International Accounting Standards (hereinafter, IAS) issued by the International Accounting Standards Board (hereinafter, IASB), as well as the interpretations issued by the Interpretations Committee (hereinafter, IFRIC). These financial statements are harmonized with generally accepted accounting principles in Colombia as set out in the Annex to Decree 2420 of 2015 and subsequent amendments accepted by the National Accounts Office through Resolution 037 of 2017.

The presentation of financial statements in accordance with IFRS requires that estimates and assumptions must to be made and affect the amounts reported and disclosed in the financial statements, without undermining the reliability of the financial information. Actual results may differ from those estimates. The estimates and assumptions are constantly revised. The review of accounting estimates is recognized in the period where the estimates are revised if the review affects such period or in the review period and future periods, if it affects both the current and the future periods. The estimates made by Management, in applying the IFRS, that have a material effect on the financial statements, and those that imply significant judgments for the annual financial statements, are described in greater detail in Note 3 - Significant accounting judgments, estimates, and causes for uncertainty in the preparation of the financial statements.

EPM presents separate financial statements, for compliance with the controlling entities and for internal administrative follow-up purposes and provide information to the investors. Likewise, EPM as the parent company presents consolidated financial statements under IFRS.

Assets and liabilities are measured at cost or amortized cost, with the exception of certain financial assets and liabilities and the investment properties that are measured at fair value. The financial assets and liabilities measured at fair value correspond to those that are classified in the category of fair value assets and liabilities through profit and loss, and for some equity investments at fair value through equity, all the financial derivatives, assets and liabilities recognized that are designated as hedged items in a fair value hedging through other comprehensive income and those that do not comply with hedging accounting through profit or loss, the carrying value of which is adjusted with the changes in fair value attributed to the risks subject matter of the hedging.

The separate financial statements are presented in their functional currency and their figures are expressed in millions of Colombian pesos.

### 2.2 Classification of assets and liabilities in current and non-current

An asset is classified as current asset when it is mainly maintained for negotiation purposes or it is expected to be realized over a term not to exceed one year after the period being reported, or it is cash and cash equivalents if it is not subject to restrictions for exchange or for being used in the cancellation of a liability over a term not to exceed one year after the period being reported. All other assets are classified as non-current assets.

A liability is classified as current liability when it is mainly kept for negotiation purposes or it is expected to be liquidated over a term not to exceed one year after the period being reported or when EPM Group does not



have an unconditional right to postpone its liquidation for at least one year after the period being reported. All other liabilities are classified as non-current liabilities.

All derivative instruments for which the hedging accounting does not apply are classified as current or non-current, or are divided into current and non-current portions, based upon the evaluation of the facts and circumstances (i.e., the underlying contractual cash flows):

- When the company keeps a derivative, for which the hedging accounting is not applied, during a term exceeding twelve (12) months as from the presentation date, the derivative is classified as non-current (or divided into current and non-current portions) so that it corresponds with the classification of the underlying item.
- Derivative instruments that are designated as hedging instruments and that are effective, are classified coherently with the classification of the underlying hedged item. The derivative instrument is divided into a current portion and another non-current only if such assignment can be made reliably.

### **2.3 Cash and cash equivalents**

The cash and cash equivalents in the statement of financial position and in the statement of cash flows include the money in cash and banks and the high-liquidity investments, easily convertible in a determined amount of cash and subject to a non-significant risk of changes in their value, with maturity of three (3) months or less from their acquisition date. Callable bank overdrafts that are an integral part of the cash management of EPM Group represent a cash and cash equivalents component in the statement of cash flows.

### **2.4 Investments made in subsidiaries, associates and joint ventures**

A subsidiary is an entity controlled by EPM. The control is obtained when EPM controls the relevant activities of the subsidiary, and is exposed, or has rights, to the variable returns of the subsidiary and has the capacity to influence in such yields.

An associate is an entity on which EPM Group has significant influence over the financial and operation policy decisions, without getting to have their control or joint control.

A joint venture is a joint agreement that EPM Group controls jointly with other participants, where the latter keep a contractual agreement that establishes the joint control and are entitled to the net assets of the agreement.

On the acquisition date, the goodwill is included in the carrying amount of the investment, and is neither amortized nor individually submitted to impairment tests of its value.

Investments in associates are measured in the separate financial statements by equity method, except if the investment or a portion thereof is classified as held for sale, in which case it is accounted for in accordance with IFRS 5 Non-current assets held for sale and discontinued operations. Through this accounting methodology, the investment is initially recorded at cost and is later adjusted in terms of the changes experienced, after the acquisition, by the portion of the net assets of the entity that corresponds to the investor. The Profit and Loss of EPM includes its participation in the Profit and Loss of the entity in which the interest is held and the other comprehensive income of the Group includes its participation in the other comprehensive income of the entity in which the interest is held. When there are variations in the percentages of participation in the associate or joint venture that do not imply a loss of significant influence or joint control, the effect of these changes is recognized directly in equity. When the participation of the Group in the loss of an associate or joint venture exceeds the participation of the Group thereon (which includes any long term participation that, in substance, forms part of the net investment of the Group in the associate or joint venture), the Group ceases to recognize its participation in future losses. Additional losses are recognized provided that the Group has contracted some legal or implied obligation or has made payments in the name of the associate or joint venture. When the associate or joint venture subsequently makes a profit, the Group resumes the recognition of its interest therein only after its share in the aforementioned profits equals the share of unrecognized losses.

Investments in subsidiaries are accounted by using the equity method from the date on which the investee becomes a subsidiary.

Investments in associates and joint ventures are maintained in the separate financial statements at cost.

Dividends received from the subsidiary are recognized as a lower value of the investment, and those received from the associate or joint venture are recognized directly in profit or loss when the company's right to receive payment is established.

The company analyzes periodically the existence of impairment indicators and if necessary, recognizes losses for impairment in the investment of the associate or joint venture. Impairment losses are recognized in the Profit and Loss for the period and are calculated as the difference between the recoverable value of the associate or joint venture, the latter being the higher between the value in use and its fair value less the costs necessary for its sale and its carrying value.

When the significant influence over the associate or the joint control over the joint venture is lost, EPM Group measures and recognizes any residual investment that they may keep in it at its fair value. The difference between the carrying value of the associate or joint venture (taking into account the corresponding items of other comprehensive income) and the fair value of the residual investment retained, with the amount coming from its sale, is recognized in the result for the period.

The Company discontinues the use of equity method from the date on which the investment ceases to be an associate or joint venture, or when the investment is classified as held for sale. Additionally, EPM Group records all the amounts previously recognized in other comprehensive income with respect to this associate or joint venture on the same basis that would have been required if such associate or joint venture had directly sold the financial assets or liabilities. Therefore, if a gain or loss previously recognized in other comprehensive income by the associate or joint venture had been reclassified into gains or losses at the moment of the sale of the related assets or liabilities, the Group would classify the gain or loss from equity into gains or losses (as a reclassification adjustment) upon discontinuation using equity method.

## **2. 5 Joint operation**

A joint operation is a joint agreement whereby the parties that have joint control of the agreement, have the right to the assets and obligations with respect to the liabilities, related to the agreement.

In joint operations, the Company recognizes its share as follows: its assets, including its share in the assets jointly held; its liabilities, including its share in the liabilities jointly incurred in; its revenues from ordinary activities coming from the sale of its share in the product that arises from the joint operation; its share in the revenues from ordinary activities coming from the sale of the product that is made by the joint operation; and its expenses, including its share in the jointly incurred in expenses. EPM Group records the assets, liabilities, revenues from ordinary activities, and expenses related to its participation in a joint operation according to the guidelines applicable in particular to the assets, liabilities, revenues from ordinary activities, and expenses.

## **2. 6 Functional and foreign currency**

The functional currency of the Company is the Colombian peso because it is the currency of the main economic environment in which it operates, that is, in which it generates and uses cash.

The operations denominated in foreign currency are initially recorded at the exchange rates of the functional currency in force and effect on the transaction date. Subsequently, the foreign-currency denominated monetary assets and liabilities are translated using the exchange rate of the functional currency, in force and effect as of the period's closing date; the non-monetary items that are measured at their fair value are translated using the exchange rates as of the date when their fair value is determined, and the non-monetary items that are measured at historic cost are translated using the exchange rates in force and effect as of the date of the original transactions.

All exchange differences are recognized in the statement of comprehensive income in the section "statement of income" except the adjustments originated from interest costs that are capitalizable and those arising from loans in foreign currency to the extent they are considered as adjustments of the interest costs and the exchange difference originated from the conversion of the financial statements of foreign subsidiaries for the application of the equity method, which is recognized in other comprehensive income.

## 2.7 Ordinary income

The ordinary income corresponds basically to the result of the Group's main activity, which is the rendering of the services of electric power, gas, supply of water and sanitation, and is recognized when the service is rendered or at the time of the delivery of the goods, to the extent that it is probable that the economic benefit entered the Group and that the income can be reliably measured. Income is measured at the fair value of the consideration received or to be received, excluding taxes and other obligations. Discounts granted are recorded as adjustment value of income.

The most representative incomes of the energy business in Colombia are as follows:

**Reliability charge:** remuneration paid to a generating agent for the availability of Generation assets with the declared characteristics and parameters for the calculation of the firm energy for the reliability charge - ENFICC, which guarantees compliance with the Firm Energy Obligation - OEF that was assigned to it in an auction for the assignment of firm energy obligations or in the mechanism that makes its turn.

**Long-term contracts:** a contract for the sale of energy between traders and generators, which is settled in the energy exchange, under this modality of energy contract generators and traders freely agree on quantities and prices for the purchase and sale of energy Electricity in more than one day.

In the case of long-term energy purchase contracts, which have lower prices than the market and whose intention is not to use the energy purchased in the operation but to resell it in a market to obtain profits, it is considered that it does not comply with the Exception for own use

**Secondary Market of Firm Energy or Secondary Market:** A bilateral market in which generators negotiate a back-up contract with each other to ensure, for a given period of time, partial or total compliance with the firm's energy obligations acquired by one of them.

**Non Regulated Energy Sales:** This is the energy that is sold in the market to customers whose maximum demand exceeds a value in MW (megawatts) or a monthly minimum energy consumption in MWh (megawatts per MWh). Time by its acronym in English), defined by the regulatory body, by legalized installation, from which it does not use public networks of electric energy transport and uses it in the same property or in contiguous estates. Your purchases of electricity are made at freely agreed prices between the buyer and the seller.

**Energy sales regulated market:** It is the energy sold to customers whose monthly consumption is less than a predetermined value and is not entitled to negotiate the price paid by it, since both concepts are regulated; Usually uses energy for its own consumption or as an input for its manufacturing processes and not to develop marketing activities of it.

**Automatic Generation Regulation - AGC:** is a system for the control of the secondary regulation, used to accompany the variations of load through the Generation, to control the frequency within a range of operation and the programmed exchanges. The AGC can be programmed in centralized, decentralized or hierarchical mode.

**Firm energy:** this is the incremental contribution of a company's Generation plants to the interconnected system, which is carried out with a 95% reliability and is calculated based on a methodology approved by the Commission and the operational planning models used in The national interconnected system.

Gas revenues come from the distribution and sale of natural gas to the regulated and non-regulated market.

In the water business, revenues come from the provision of aqueduct and sewerage services.

In the other countries where the Group provides its services, including energy services, they have their own regulation, which is described by each country in section 1.1 Legal and regulatory framework

At the time of recognition of income, the Group evaluates based on specific criteria to identify when it acts as principal or commission agent and thus determine whether revenues should be recognized grossly or net for marketing activities.

Revenues and costs from contracts are recognized according to the degree of termination, which is measured based on the costs incurred to date as a percentage of the total estimated costs for each contract. When the

result of a contract cannot be reliably measured, revenues are recognized only to the extent that the incurred expense meets the conditions to be recovered, while the expected losses are recognized immediately.

## 2. 8 Construction Contracts

When contract results can be reliably measured, EPM Group recognizes the revenues and expenses associated to construction contracts using the advance-level method, as a function of the proportion represented by the costs earned by the work conducted to that date and the estimated total costs up to its completion.

The cost incurred in includes the costs, including borrowing costs directly related to the contract, until the work has been completed. Administrative costs are recognized in the result for the period.

When the result of a contract under course cannot be reasonably estimated, the revenues thereof are recognized to the extent that it is probable to recover the costs incurred in. In those projects where it is probable that costs are greater than revenues, the expected losses are immediately recognized.

The payments received from the client before the corresponding work has been carried out, are recognized as a liability in the statement of financial position as other liabilities.

The difference between the revenues recognized in the statement of income and the billing is presented as an asset in the statement of financial position denominated "Trade and other receivables", or as liability denominated "Other liabilities".

## 2. 9 Government grants

Government grants are recognized at fair value when there is reasonable security that those subsidies shall be received and that all conditions linked to them shall be met. The grants that pretend to offset costs and expenses already incurred in, without subsequent related costs, are recognized in the statement of income of the period when they become enforceable. When the grants related to an asset, it is recorded as deferred income and is recognized in the result for the period on a systematic basis throughout the estimated useful life of the corresponding asset. The benefit of a government loan at an interest rate below market is treated as a government subsidy, measured as the difference between the amounts received and the fair value of the loan based upon the market interest rate.

## 2. 10 Taxes

The fiscal structure of each country where EPM Group companies are located, the regulatory frameworks and the plurality of operations that the companies undertake make each of the companies a taxpayer (passive subject of taxes, rates and contributions) on a national and territorial basis. Those liabilities are generated by the central government, the states/departments, municipal entities and other active subjects, once the conditions foreseen in the corresponding standards issued are met.

Among the most relevant taxes are the income tax, the sales tax and the wealth tax:

### Income tax

- **Current:** The current income tax assets and liabilities for the period are measured by the amounts that are expected to be recovered or paid to the fiscal authorities. The income tax expense is recognized in the current tax according to the cleaning made between the fiscal income and the book profit or loss affected by the income tax rate of the current year and pursuant to the provisions of the tax norms in each country. The tax rates and norms used for computing those values are those that are approved at the end of the period being reported, in the countries where EPM Group operates and generates taxable profits.

The fiscal profit differs from the gain profit reported in the statement of income for the period due to the revenue and expense items that are taxable or deductible in other years and items that shall not be taxable or deductible in the future.

Current Income tax assets and liabilities are also offset if they relate to the same fiscal authority and there is the intention to liquidate them for the net value or to realize the asset and liquidate the liability simultaneously.

- **Deferred:** The deferred income tax is recognized using the liability method calculated on the temporary differences between the fiscal bases of the assets and liabilities and their carrying values. The deferred tax liability is generally recognized for all taxable temporary differences and the deferred tax asset is recognized for all deductible temporary differences and for the future offsetting of fiscal credits and unused fiscal losses to the extent that it is probable the availability of future tax gains against which they can be imputed. Deferred taxes are not discounted.

The deferred tax assets and liabilities are not recognized if the temporary difference arises from the initial recognition of an asset or a liability in a transaction that is not a business combination and that, at the moment of the transaction, affected neither the book gain nor the fiscal profit or loss; and for the deferred tax liability case, whenever it arises the initial recognition of goodwill.

The deferred tax liabilities related to investments made in subsidiaries, associates and participations in joint ventures, are not recognized the timeliness of if the timing of the reversal of temporary differences can be controlled and it is probable that those differences will not be reversed in the near future and the deferred tax assets related to investments made in subsidiaries, associates and participations in joint ventures shall revert in the near future and it is probable the availability of future taxable gains profits against which these deductible differences will be imputed.

The carrying value of the deferred tax assets is reviewed in each presentation date and they are reduced to the extent that it is no longer probable that there are enough taxable gains profits to use for the entire or one part of the deferred tax asset. The deferred tax assets that are not recognized are reassessed on each presentation report date and are recognized to the extent that it is probable that future taxable gains profits allow their recuperation recovery.

Deferred tax assets and liabilities are measured at the fiscal rates expected to be applied in the period when the asset is realized or the liability is cancelled, based upon the fiscal rates and norms that were approved on the presentation date, or the approval procedure of which is about to be completed for such date. The measurement of deferred tax assets and liabilities will reflect the fiscal consequences that would be derived from the fashion in which the entity expects to recover or liquidate the carrying value of its assets and liabilities, at the end of the period being reported.

The deferred tax assets and liabilities must be presented as non-current.

The deferred tax assets and liabilities are offset if there is a legally enforceable right for that and are related to the same tax authority.

The deferred tax is recognized in the result for the period, except that related to items that are recognized outside the results; in this latter case, it will be presented in the other comprehensive income or directly in equity.

With the purpose of measuring the deferred tax liabilities and the deferred tax assets for investment properties that are measured using the fair value model, the carrying value of those properties is presumed that will be fully recovered through their sale, unless the presumption is challenged. The presumption is challenged when the investment property is depreciable and is kept within a business model the object of which is to consume, substantially, all the economic benefits that are generated by the investment property through the time, and not through the sale. Management reviewed the Group's investment property portfolio and concluded that none of the Group's investment properties is kept under a business model the objective of which is to consume, substantially, all economic benefits generated by investment properties over time rather than through the sale. Therefore, the management have determined that the presumption of "sale" established in the modifications to IAS 12 Income tax is not challenged.

Whenever the current tax or deferred tax arises from the initial recording of the business combination, the fiscal effect is considered within the recording of the business combination.

## Sales tax - VAT

The company is responsible for the common regime since it makes sales of goods, provides taxed services and obtains exempt income for exports. Currently in Colombia the services of energy, aqueduct, sewage and residential gas are excluded from this tax.

In Colombia, the general rate is 19% and exists a differential rate of 5%.

In Colombia, the Generation of income excluded in the particular case of public home services, VAT paid on purchases is part of a higher cost value. Also, when taxable income is generated, that is to say when taxed goods or services are sold, the VAT paid on the purchase or purchase of inputs for these sales will be deductible from the value payable of the tax. When the company generates income that is excluded from VAT, but at the same time generates income that is exempt and taxed, in that case a proration of the VAT paid must be made to determine the percentage of VAT to be discounted.

### **Wealth tax**

The wealth tax is calculated in accordance with current legal tax provisions. The calculation is made for each year while the tax is in force and is recorded in the statement of comprehensive income as an expense.

#### **2. 11 Assets held for sale and discontinued operations**

Non-current assets and the groups of assets for disposal purposes are classified as held for sale if their carrying value will be recovered through a sales transaction, instead of by their continued use; these assets or groups of assets are presented separately in the statement of financial position as current assets and liabilities at their carrying value or their fair value less costs of sale, whichever is lower, and are neither depreciated nor amortized as from the date of their classification.

This condition is met if the asset or group of assets is available, in their current conditions, for immediate sale, the sales transaction is highly probable and is expected to be done within the year subsequent to the classification date.

Income, costs and expenses from a discontinued operation are presented separately from those of continued activities, in a single item after income tax, in the consolidated comprehensive income statement of the current period and the comparative period of the previous year. Even though when the Group retains a non-controlling interest in the company that was once a subsidiary after the sale.

#### **2. 12 Property, plant and equipment**

Properties, plant and equipment are measured at cost, net of accrued depreciation and accrued impairment losses, if any. The cost includes the acquisition price; the costs directly related to putting the asset at the place and condition necessary to operate in the way foreseen by EPM; the costs corresponding to loans of the construction projects that take a substantial period to be completed, if the requirements of recognition are complied with; and the present value of the expected cost for the dismantlement of the asset after its use, if the criteria for recognition for a provision are met.

Constructions in progress are measured at cost less any loss for impairment recognized and includes those disbursements that are indispensable and that are directly related to the construction of the asset, such as professional fees, work supervision, civil works and, in the case of those assets qualified, the borrowing costs are capitalized. Those constructions in progress are classified in the proper categories of properties, plant and equipment at the time of their completion and when they are ready to use. The depreciation of these assets starts when they are ready to use in accordance with the same basis as in the case of other elements of property, plant and equipment.

All additions or improvements made on the assets are capitalized by the Company as a greater value thereof, provided that any of the following conditions is met: a) They increase their useful life; b) They increase their productive capacity and operating efficiency thereof; and c) They reduce costs to the Company. All other repair and maintenance costs are recognized in the statement of comprehensive income as incurred, except when they increase the useful life, or the productive capacity and efficiency thereof, in which case they are capitalized.

The inventory of spare parts for specific projects, which are expected to have no turnover in one year and meet the criteria to be capitalized, known as replacement assets, are presented in other property, plant and equipment.

The initial depreciation when the asset is available for use and is calculated in a linear fashion throughout the estimated useful life of the asset as follows:

|                                          |                     |    |           |
|------------------------------------------|---------------------|----|-----------|
| Plants, ducts and tunnels                |                     |    |           |
| Construction                             | 50                  | to | 100 years |
| Equipment                                | 10                  | to | 100 years |
| Networks, lines and cables               |                     |    |           |
| Electrical transmission network          | 30                  | to | 40 years  |
| Electrical distribution network          | 30                  | to | 40 years  |
| Aqueduct network                         | 40                  | to | 80 years  |
| Residual water network                   | 30                  | to | 80 years  |
| Gas network                              | 60                  | to | 80 years  |
| Buildings                                | 50                  | to | 100 years |
| Communication and computing equipment    | 5                   | to | 40 years  |
| Machinery and equipment                  | 7                   | to | 40 years  |
| Furniture, fixture, and office equipment | 10                  | to | 15 years  |
| Land (only applies for Emvarias)         | Are not depreciated |    |           |

Useful lives are determined considering, among others, the manufacturer's technical specifications, the knowledge of the technicians that operate and maintain the assets, the geographic location and the conditions to which it is exposed.

The Company calculates the depreciation by components, which implies depreciating individually the parts of the asset that have different useful lives. The depreciation method used is straight line; The residual value that is calculated for the assets is not part of the depreciable amount.

A component of properties, plant and equipment and any significant part initially recognized, is written-off once disposed of or when it is not expected to obtain future economic benefits from its use or disposal. The gain or loss at the moment of writing the asset off, calculated as the difference between the net value of the disposal and the carrying value of the asset, is included in the statement of comprehensive income.

Any residual values, useful lives, and depreciation methods for the assets are revised and adjusted prospectively every exercise closing, if required.

## 2.13 Leasings

The determination of whether an agreement constitutes or contains a lease is based upon the essence of the agreement at its initial date, if compliance with the agreement depends upon the use of a specific asset(s), or if the agreement grants a right of use of the asset.

Leases are classified as finance and operating leases. A lease is classified as financial lease whenever it substantially transfers all the risks and benefits inherent to the ownership of the asset leased to the lessee; otherwise, it is classified as an operating lease.

### EPM Group as a lessee

The assets leased under financial leases are recognized and presented as assets in the statement of financial position at the beginning of the lease, for the fair value of the asset leased or the present value of the minimum

lease payments, whichever is lower. The corresponding liability is included in the statement of financial position as a financial lease liability.

The assets leased under financial leases are depreciated throughout the useful life of the asset through the straight-line method. However, if there were no reasonable certainty that EPM Group shall get the ownership upon the lease term termination, the asset is depreciated throughout its estimated useful life or over the lease term, whichever is lower. Lease payments are divided between financial expenses, and debt reduction. The financial cost is recognized in the statement of comprehensive income of the period, unless they could be directly attributable to qualifying assets, in which case they are capitalized in conformity with the entity's policy for borrowing cost. Contingent lease installments are recognized as expenses in the period where incurred.

All payments for operating leases, including the incentives received, are recognized as expenses in the statement of comprehensive income, on a linear basis throughout the lease term, except when another systematic basis for distribution results being more representative because it reflects more adequately the timing pattern of the benefits of the lease for the user.

#### **EPM Group as a lessor**

Assets rented under financial leases are not presented as property, plant and equipment given that the risks associated to the ownership have been transferred to the lessee; rather, a financial asset is recognized.

Land and buildings rented under operating leases are presented as investment properties, and the other assets given under operating lease are presented as property, plant and equipment. Initial direct costs incurred in the negotiation of an operating lease are added to the carrying value of the asset leased, and are recognized as expenses throughout the lease term on the same basis as the revenues from the lease. Financial lease revenues are distributed during the lease term in order to reflect a constant yield rate in the net investment. Contingent leases are recognized in the period they are obtained.

Revenues proceeding from operative leases over investment properties are accounted for on a straight-line basis over the term of the lease.

#### **2. 14 Borrowing Costs**

Borrowing costs that are directly attributable to the acquisition, construction or production of an asset that necessarily takes substantial time to be prepared for their destined use or sale, are capitalized as part of the cost of the respective asset until the asset is ready for their intended use. The revenue from the temporary investment in specific loans pending to be consumed in qualified assets is deducted from the borrowing costs that qualify for their capitalization. All other borrowing costs are recorded as expenses in the period when incurred. Borrowing costs consists of interest and other costs incurred in by EPM with respect to the loan of funds. To the extent that the funds derive from generic loans and are used to obtain a qualified asset, the value of the costs susceptible of capitalization is determined by applying a capitalization rate (weighted average of the borrowing costs applicable to the general loans outstanding during the period) to the disbursements made in that asset.

The capitalization of borrowing costs begins on the date in which the following conditions are met:

- Disbursements are incurred in relation to the asset.
- Loans costs incurred, and
- The necessary activities to prepare the asset for the intended use or for sale are carried out.

The capitalization of borrowing costs is suspended during periods in which the development of activities of a qualifying asset for periods of more than one year is interrupted. However, the capitalization of borrowing costs over a period is not interrupted if important technical or administrative actions are being undertaken. The capitalization of borrowing costs is also not suspended when a temporary delay is required as part of the process of preparing an asset qualified for its use or sale.



Capitalization of loan costs is terminated when substantially all of the activities necessary to prepare the asset have been completed for use or sale. When the asset has components that can be used separately while construction continues, the capitalization of borrowing costs on such components is stopped.

## 2.15 Investment properties

Investment properties are those held to obtain rentals and/or capital revaluations (including the investment properties under construction for those purposes). Investment properties are initially measured at cost, including transaction costs. The carrying value includes the replacement or substitution cost of one part of an existing investment property at the moment when the cost is incurred in, if all criteria for recognition are met; and they exclude the daily maintenance costs of the investment property.

After the initial recognition, investment properties are measured at the fair value reflected by market conditions on the presentation date. All gains and losses arising from changes in the fair values of the investment properties are included in the statement of comprehensive income in the section “result for the period” in the period when they arise.

Investment properties are derecognized, either at the moment they are disposed, or when they are retired from use on a permanent basis, and no future economic benefit is expected. The difference between the net value of disposal and the carrying value of the asset is recognized in the statement of comprehensive income in the section “result for the period” in the period when it was written-off.

Transfers to or from investment properties are conducted only when there is a change in their use. In the case of a transfer from an investment property to a property, plant and equipment, the cost taken into account for its subsequent posting is the fair value on the date of the change in use. If a property, plant and equipment become an investment property, it shall be recorded at its fair value; the difference between the fair value and the carrying value shall be recorded as revaluation surplus applying the International Accounting Standard (IAS) 16.

## 2.16 Intangible assets

Intangible assets acquired separately are measured initially at their cost. The cost of the intangible assets acquired in business combinations is their fair value at the acquisition date. After their initial recognition, the intangible assets are accounted for at cost less any accumulated amortization and any accumulated loss for impairment. Intangible assets generated internally are capitalized provided that they meet the criteria for their recognition as asset and the generation of the asset must be classified as: research phase and development phase; if it is not possible to distinguish the research phase from the development phase, the disbursements must be reflected in the Comprehensive income statement in the period in which they incurred.

The useful lives of intangible assets are determined as finite or indefinite.

Intangible assets with finite useful lives are amortized throughout their economic useful life on a linear basis and are evaluated to determine whether they had value impairment in carrying amount, provided that there are indications that the intangible asset could have suffered such impairment. The amortization period and the amortization method for an intangible asset with a finite useful life are revised at least at every period’s closing. Any changes in the expected useful life or the expected consumption pattern of the future economic beneficiaries of the asset are recorded when changing the amortization period or method, as the case may be, and are treated as changes in the accounting estimates. The amortization expense of intangible assets with finite useful lives is recognized in the statement of comprehensive income in the section “result for the period” in the category of expenses that shall result being coherent with the intangible asset’s function.

Intangible assets with undefined useful lives are not amortized, but they are subject to annual tests to determine whether they suffer a value impairment, either individually or at the CGU level. The evaluation of the undefined useful life is revised on an annual basis to determine whether such undefined life continues to be valid. If that is not the case, the change of useful life from undefined to finite is made prospectively.

An intangible asset is written-off upon disposal, or whenever future economic benefits are not expected from their use or disposal. The gains or losses arising when an intangible asset is written-off are measured as the

difference between the value obtained in the disposal and the carrying value of the asset, and it is recognized in the statement of comprehensive income in the “result for the period” section.

### **Research and development costs**

Research costs are recorded as expenses as incurred. Development outlays in an individual project are recognized as intangible assets whenever EPM Group can demonstrate:

- The technical feasibility of finalizing the intangible asset so that it is available for use or sale;
- Their intention of finalizing the asset and its capacity to use or sell the asset;
- How the asset will generate future economic benefits, considering, among others, the existence of a market for the production that generates an intangible asset for the asset itself, or the profit of the asset for the entity.
- The availability of technical and financial resources to finalize the asset and to use and sell it.
- The capacity of reliably measuring the disbursement during the development.

In the statement of financial position, the development disbursements asset is recognized from the moment the element meets the aforementioned conditions for its recognition, and it is recorded at cost less accrued amortization and the value impairment accrued losses.

When the development of an intangible asset related to an Energy Generation project begins, costs are accumulated as constructions in progress.

Amortization of the asset starts when the development has been completed and the asset is available to be used. It is amortized throughout the period of the expected future economic benefit. During the development period, the asset is subject to annual tests to determine whether or not there is impairment of its value.

Research costs and development costs that do not qualify to capitalization are recorded as expenses in the results for the period.

### **Other intangible assets**

Other intangible assets such as concession of services, licenses, software, exploitation rights, trademarks and similar rights acquired by the Group are measured at cost less the accumulated amortization and any loss for impairment.

## **2. 17 Financial instruments**

Financial assets and liabilities are recognized in the statement of financial position when EPM becomes a party according to the contractual conditions of the instrument.

Financial assets and liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issuance of financial assets and liabilities (other than the financial assets and liabilities designated at fair value with change in operations) are added to or deducted from the fair value of the financial assets or liabilities, whenever appropriate, at the moment of the initial recognition. All transaction costs directly attributable to the acquisition of financial assets or liabilities designated at fair value with change in operations are immediately recognized in the results for the period.

### **Financial Assets**

The Company classifies its financial assets for subsequent measurement at amortized cost or fair value through other comprehensive income or through results) depending upon the business model of EPM Group to manage financial assets and the characteristics of the contractual cash flows of the instrument.

A financial asset is subsequently measured at amortized cost or at fair value with changes in other comprehensive income, using the effective interest rate if the asset is maintained within a business model the objective of which is to keep them to obtain contractual cash flows and the contractual terms thereof grant, in specific dates, cash flows that are only payments of the principal and interest on the pending principal amount.

Without detriment to the foregoing, EPM Group can designate a financial asset as measured at fair value with changes in operations irrevocably.

All other financial assets different from those at amortized cost are subsequently measured at fair value with changes recognized in the results for the period. However, for the investments made on capital instruments that are not maintained for negotiation purposes, EPM Group may elect in the initial recognition and irrevocably to present the gains or losses for the measurement at fair value in other comprehensive income. In the disposal of investments at fair value through the other comprehensive income, the accrued value of the gains or losses is directly transferred to the withheld gains; they are not reclassified to results for the period. The dividends received from these investments are recognized in the statement of comprehensive income, in the “result for the period” section. EPM Group has selected to measure some of its investments in capital instruments at fair value through the other comprehensive income.

The fair value through results category includes the investments that are made to optimize liquidity surpluses, i.e., all those resources that are not immediately devoted to the development of the activities that form the company’s corporate purpose. The investment of the liquidity surpluses is made under the criteria of transparency, security, liquidity and profitability, under the guidelines of an adequate control and in market conditions without speculative purposes (Decree of the General Manager of EPM No. 2015-DECGGL-2059 of February 6, 2015).

Income from dividends is recognized when the Group's right to receive payment is established.

#### **Impairment of financial assets**

At each reporting date, the Group recognizes a correction in value for expected credit losses on financial assets measured at amortized cost or at fair value through changes in other comprehensive income, including receivables from leases, contract assets or loan commitments and financial guarantee contracts to which the impairment requirements are applied over the life of the asset.

Expected credit losses are estimated considering the probability that an impairment loss may or may not occur and are recognized as a gain or loss in the statement of comprehensive income, the profit or loss section of the period against a lower value of the financial asset. The Group assesses the credit risk of financial assets on a monthly basis at the time of presenting the reports, in order to determine the value correction for expected credit losses over the financial assets.

The Company applies the impairment requirements for loss to financial assets that are measured at fair value with changes in other comprehensive income, which is recognized in the other comprehensive income and does not decrease the carrying amount of the financial asset in the statement of financial situation.

The Company assesses on a collective basis the expected losses for financial assets that are not individually significant. When the collective assessment of expected losses is carried out, the accounts receivable are grouped by similar credit risk characteristics, allowing the identification of the debtor's ability to pay, in accordance with the contractual terms of the accounts receivable.

The Company determines that a client's credit risk increases significantly when there is a breach in the financial agreements by the counterpart, or when the internal information or that obtained from external sources indicates that the debt payment is unlikely, without considering the guarantees maintained

Non-compliance of the covenants is measured, in general when there are 2 expired accounts, however, exist covenants or individual contracts that indicate the non-compliance immediately it ceases to meet the obligation.

The Company determines that a financial asset presents credit deterioration when:

- Non-compliance of client´s payment is evidenced in the payment of two (2) or more collection accounts.
- It is known or there is evidence that the client enters into business restructuring processes or insolvency or liquidation.

- Social alterations of public order or natural disasters are presented, that according to experience are directly correlated with non-payment of account receivable.

Credit risk is affected when there are presented changes in the financial assets, the Company's policy to reassess the recognition of credit losses is basically based on the payment behavior of the client or counterparty. When there is evidence of an improvement in the historical behavior of the client's payment, a reduction in the risk is recorded and in case there is an increase in the default age of the portfolio, an increase in the impairment of the asset is recorded.

and the asset is written off when:

- The registered accounts receivable do not represent certain rights, goods or obligations for EPM.
- The rights or obligations lack of documents and suitable support that allow overtaking the pertinent procedures for its collection or payment.
- It is not possible to collect the right or obligation, by coercive or judicial collection, once the pre-legal collection stage has been exhausted.
- When it is impossible to identify and individualize a natural or legal person, to collect the portfolio.
- Once the cost-benefit relation is evaluated and established, it is more onerous to advance in the collection process than in the value of the obligation.
- When it is presented the prescription of the security and executive title or the expiration of the right.
- That, having advanced in the executive process, there are no assets to make the payment of the obligation effective.
- When the liquidation process of a natural or legal person has been advanced in terms of law, the goods received in payment dation do not cover the entire debt; the unpaid balance will be written off.

When the contractual cash flows of a financial asset are renegotiated or modified and the renegotiation or modification does not result in derecognition of that financial asset in accordance with IFRS 9, the company recalculates the gross carrying amount of the financial asset and recognizes a gain or loss for modification in the result of the period. The gross carrying amount of the financial asset was recalculated as the present value of the modified or renegotiated contractual cash flows that are discounted at the original effective interest rate of the financial asset (or effective interest rate adjusted for credit quality for financial assets with credit impairment purchased or originated) or, when applicable, the revised effective interest rate. Any cost or commission incurred adjusts the carrying amount of the modified financial asset and is amortized over the remaining term of the asset.

Amortized financial assets may continue to be subject to execution activities under the Group's recovery procedures, taking into account the legal recovery when appropriate. The realized recoveries are recognized in profit or loss for the period.

#### **Classification as debt or equity**

Debt and equity instruments are classified as financial liabilities or equity in conformity with the substance of the contractual agreement and the definitions of financial liability and equity instrument.

#### **Financial liabilities**

At the moment of the initial recognition, the Company classifies financial liabilities for a subsequent measurement at amortized cost or at fair value with changes in results.

The financial liabilities at fair value with changes in results include those liabilities held to negotiate, the financial liabilities designated at the moment of their initial recognition like at fair value with changes in results and the derivatives. The gains or losses for liabilities held to negotiate are recognized in the statement of comprehensive income in the "statement of income" section. In the initial recognition, EPM Group designated financial liabilities as at fair value with changes in results.

Liabilities at amortized cost are measured using the effective interest rate. All gains and losses are recognized in the statement of comprehensive income in the “Statement of income” section whenever the liabilities are written-off, as well as through the amortization process under the effective interest rate method, that is included as financial cost in the Statement of comprehensive income in the statement of incomes section.

#### **Financial guarantee contracts**

The financial guarantee contracts issued by the Company are those contracts that require the making of a specific payment to reimburse the holder of the loss incurred in when a specified debtor does not meet their payment obligation, according to the conditions of a debt instrument. The financial guarantee contracts are initially recognized as a liability at fair value, adjusted by the transaction costs that are directly attributable to the issuance of the collateral. Subsequently, the liability is measured at: (i) the best estimate of the disbursement required to settle the current obligation as of the presentation date; and (ii) the amount initially recognized less the accrued amortization, whichever is greater.

#### **Write-off of financial assets and liabilities**

A financial asset, or part of it, is derecognized from the statement of financial position whenever it is sold, transferred, expire or EPM Group losses control on the contractual rights or on the cash flows of the instrument.

If the entity does not transfer or substantially retains all the risks and advantages that are inherent to the property and continues to retain the control of the asset transferred, the entity will recognize its share in the asset and the obligation associated for the amounts that it would have to pay. If the group substantially retains all risks and advantages inherent to the ownership of a financial asset transferred, the entity shall continue to recognize the financial asset and also shall recognize a loan guaranteed in a collateral fashion for the revenues received.

In the total derecognition of a financial asset measured at fair value with changes in profit and loss, the difference between the carrying value of the assets and the sum of the consideration received and to be received, is recognized in the statement of comprehensive income, result of period section. In case of financial assets measured at fair value with change in equity, the difference between the carrying value of the asset and the sum of the consideration received and to be received is recognized in the Profit and Loss for the period, and the profit or loss that would have been recognized in the other comprehensive income will be reclassified to accumulated profit and loss.

A financial liability or part of it is written-off from the statement of financial position when the contractual obligation has been settled or has expired. If the entity does not transfer or substantially retains all risks and advantages inherent to the ownership and continues to retain the control of the asset transferred, the entity shall recognize its participation in the asset and the associated obligation for the amounts that it would have to pay. If the group substantially retains all the risks and advantages inherent to the ownership of a financial asset transferred, the entity shall continue to recognized the financial asset and also recognize a guaranteed loan on a collateral way for the incomes received.

Whenever an existing financial liability is replaced by another coming from the same lender under substantially different conditions, or if the conditions of an existing liability are substantially modified, such exchange or modification is treated as a decrease of the original liability and the recognition of a new liability, and the difference in the respective carrying values is recognized in the statement of comprehensive income in the result section of the period. In the event that the changes are not material, the company recalculates the gross carrying amount of the financial liability and recognizes a gain or loss due to changes in the result of the period. The gross carrying amount of the financial liability is recalculated as the present value of the modified or renegotiated contractual cash flows that are discounted at the original effective interest rate of the financial liability or, when applicable, the revised effective interest rate. Any cost or commission incurred adjusts the carrying amount of the modified financial liability and is amortized over the remaining term of the latter.

#### **Compensation of financial instruments**

Financial assets and financial liabilities are subject to compensation in a way that the net value is informed in the consolidated statement of financial position, only if (i) at the current moment, there is a legally enforceable

right of compensating the amounts recognized; and (ii) there is the intention of settling them at their net value, or of realizing the assets and cancelling the liabilities simultaneously.

### Derivative financial instruments

EPM Group used derivative financial instruments, like term contracts (“Forward”), futures, financial barterers (“Swaps”) and options to hedge several financial risks, mainly the interest rate, exchange rate and commodities price risks. Such derivative financial instruments are initially recognized at their fair values on the date when the derivative contract is entered into, and subsequently they are measured again at their fair value. Derivatives are recorded as financial assets in the statement of financial position when their fair value is positive, and as financial liabilities when their fair value is negative.

The fair value of the commodity contracts that meet the definition of a derivative, but that are entered into in conformity with the expected purchase requirements of EPM Group, are recognized in the statement of comprehensive income as cost of sales.

Any gain or loss that arises from the changes in derivatives’ fair value is directly recognized in the statement of comprehensive income in the “statement of income” section, except for those that are under hedge accounting.

The derivatives implicit in main contracts are treated as separate derivatives whenever they meet the definition of a derivative and when their risks and characteristics are not closely related to those main contracts and the contracts are not measured at fair value with change in results.”

### Hedge Accounting

At the beginning of a hedging transaction, EPM Group designates and formally documents the hedging transaction to which they want to apply the hedging accounting and the objective of the risk management and the strategy to carry out the hedging. The documentation includes the identification of the hedging instrument, the item or transaction hedged, the nature of the risk being hedged and how EPM Group shall evaluate the effectiveness of the changes in fair value of the hedging instrument when offsetting the exposure before changes in the fair value of the hedged item or in the cash flows, attributable to the risk hedged. That hedging is expected to be highly efficient in achieving the offsetting of changes in the fair value or in the cash flows, and they are permanently evaluated to determine whether that was actually so throughout the information periods for which they were designated.

For hedging accounting purposes, the hedging is classified and recorded as follows, once the stringent criteria for their recording are complied with:

- **Fair value hedging**, when they hedge the exposure to fair value changes of assets or liabilities recognized or non-recognized firm commitments.

A change in the fair value of a derivative that is a hedging instrument is recognized in the statement of comprehensive income, in the “statement of income” section as financial cost or revenue. A change in the fair value of the item hedged attributable to the risk hedged is recorded as part of the carrying value of the hedged item, and also is recognized in the statement of comprehensive income in the “statement of income” section as financial cost or revenue.

For the fair value hedging that related to items recorded at amortized cost, the adjustments to the carrying value are amortized through the statement of comprehensive income in the “statement of income” section during the remaining term until their expiration. Amortization of the effective interest rate may begin as soon as there is an adjustment to the carrying value of the hedged item, but it must start at the latest when the hedged item is no longer adjusted for their fair value changes attributable to the risk being hedged. Amortization of carrying value adjustments is based upon the effective interest rate recalculated on the amortization’s start date. If the hedged item is written-off, the non-amortized fair value is immediately recognized in the statement of comprehensive income in the “statement of income” section.

When a non-recognized firm commitment is designated as a hedged item, the subsequent accrued change in the fair value of the firm commitment attributable to the hedged risk shall be recognized as an asset or liability with their corresponding gain or loss recognized in the statement of comprehensive income in the “statement of income” section.

- **Cash flow hedging**, when they cover the hedging to the attributed cash flow variations exposure, either to a particular risk associated to a recognized asset or liability or to a highly probable foreseen transaction, or to the exchange rate risk in a non-recognized firm commitment.

The purpose of cash flows hedging accounting is to recognize in the other comprehensive income the fair value variations of the hedging instrument to apply them to the income statement accounts when, and the rhythm that, the hedged item affects the same.

The effective portion of the gain or loss for the measurement of the hedging instrument is immediately recognized in the other comprehensive income, whereas the ineffective portion is immediately recognized in the statement of comprehensive income in the “statement of income” section as financial expense.

The values recognized in the other comprehensive income are classified into the statement of comprehensive income in the “statement of income” section when the hedged transaction affects the result, as well as when the financial revenue or financial expense hedged is recognized, or when the transaction foreseen takes place. When the hedged item constitutes the cost of a non-financial asset or liability, the values recognized in the other comprehensive income are reclassified at the initial carrying value of the no-financial asset or liability. If the foreseen transaction or the firm commitment is no longer expected to happen, the accrued gain or loss previously recognized in the other comprehensive income is reclassified into the statement of comprehensive income in the “statement of income” section.

If the hedging instrument expires or is sold, it is resolved, or is exercised without a replacement or successive renovation of a hedging instrument for another hedging instrument, or if its designation as hedging is revoked, any accrued gain or loss previously recognized in the other comprehensive income remains in the other comprehensive income until the operation foreseen or the firm commitment affects the result.

- **Hedging of a net investment abroad**, when they hedge the exposure to the variations in the translation of foreign businesses into the presentation currency of EPM Group, associated to the exchange rate risk.

The objective of the foreign-currency net investment hedging is to hedge the exchange rate risks that a Principal or Intermediate Parent Company having businesses abroad may have on the impact of the translation of financial statements from functional currency to presentation currency. The hedging of net investment in foreign currency is a hedging to the exposure in foreign currency, not a hedging of the fair value due to changes in the investment value.

The gains or losses of the hedging instrument related to the effective portion of the hedging are recognized in other comprehensive income, whereas any other gain or loss related to the ineffective portion is recognized in the statement of comprehensive income in the “statement of income” section. Before the disposal of the business abroad, the accrued value of the gains or losses recorded in the other comprehensive income are reclassified in the statement of comprehensive income in the “statement of income” section.

### Equity instruments

An equity instrument consists of any contract showing a residual interest on an entity’s assets after deducting all its liabilities. Equity instruments issued by EPM are recognized at the revenues received, net of direct issuance costs.

The repurchase of the Company’s own equity instruments is recognized and directly deducted in equity. No gain or loss is recognized in operations, coming from the purchase, sale, issuance, or cancellation of the Company’s own equity instruments.

## 2. 18 Inventories

The goods acquired with the intention of selling them during the ordinary course of business or of consuming them in the service rendering process are classified as inventories.

Inventories are valued at cost or net realizable value, whichever is lower. The net realizable value is the sales price estimated in the normal course of business, less the estimated finalization costs and the estimated costs necessary to make the sale.

Inventories include merchandise in stock that do not require transformation, such as energy, gas and water meters, communication equipment, telephone sets, and procurement goods. They include materials such as minor spare parts and accessories for the rendering of services and the goods in transit and held by third parties.

Inventories are valued by using the weighted average method and their cost includes the costs directly related to the acquisition and those incurred in to give them their current conditions and location.

## 2. 19 Impairment value of non-financial assets

As of every presentation date, EPM Group evaluates whether they have any indication that a tangible or intangible asset may be impaired. EPM Group estimates the recoverable value of the asset or CGU at the moment it detects an indication of impairment, or annually (as November 30 and it is reviewed if there are significant or significant events presented in the month of December that merit analysis and be included in the calculation of the deterioration.) for intangible assets with undefined useful life and those that are still being used.

The recoverable value of an asset is the fair value less costs of sale, either of an asset or a CGU, and its value in use, whichever is greater, and it is determined for an individual asset, except that the asset does not generate cash flows that are substantially independent from the other assets or group of assets; in this case, the asset should be grouped into a CGU. When a reasonable and consistent base of distribution is identified, common/corporate assets are also assigned to the individual CGUs, or distributed to the smallest group of CGUs for which it can be identified a reasonable and consistent distribution base. When the carrying value of an asset or of a CGU exceeds its recoverable value, the asset is considered impaired and the value is reduced to its recoverable amount.

When calculating the value of use, either for an asset or a CGU, the estimated cash flows are discounted at their present value through a discount rate before taxes that reflects the market considerations of the temporary value of money and the specific risks of the asset. An adequate valuation model is used for determining the reasonable value less the costs of sale.

Losses for impairment of continued operations are recognized in the comprehensive income statement in the section income statement in those expense categories that correspond to the function of the impaired asset. Losses for impairment attributable to a CGU are assigned proportionately based in the carrying amount of each asset to the non-current assets of the CGU after extinguishing goodwill. The CGU is the smallest identifiable group of assets, which generates cash inflows in favor of the Group, which are largely independent of cash flows derived from other assets or groups of assets. The Group defined the CGU considering: 1) The existence of income and costs for each group of assets, 2) The existence of an active market for the Generation of cash flows and 3) the way in which Manage and monitor operations. In order to evaluate losses due to impairment of value, the assets are grouped into the following CGUs: Generation, Distribution, Sanitation and Water, Gas and Transmission Provision.

The impairment value for goodwill is determined by evaluating the recoverable value of each CGU to which the goodwill relates. The value impairment losses related to goodwill may not be reverted in future periods.

For assets in general, excluding the goodwill, on each presentation date an evaluation is conducted about whether there is any indication that the impairment losses previously recognized no longer exist or have decreased. If such indication exists, EPM Group makes an estimate of the asset's or the cash-generating unit's recoverable value. An impairment loss previously recognized only can be reverted if there was a change in the assumptions used for determining the recoverable value of an asset since the last time when it was recognized the last impairment loss. The reversal is limited in such a way that the carrying value of the asset neither exceeds its recoverable amount, nor exceeds the carrying value that would have been determined, net of



depreciation, if no impairment loss had been recognized for the asset in the previous years. Such reversal is recognized in the statement of comprehensive income in the “statement of income” section.

## **2. 20 Provisions**

Provisions are recorded when EPM Group has a present, legal or implicit obligation, as a result of a past event; it is probable that EPM Group have to give off resources that incorporate economic benefit to cancel out the obligation, and a reliable estimate can be made of the value of the obligation. In those cases in which EPM Group expects that the provision be reimbursed in whole or in part, the reimbursement is recognized as a separate asset, but only in the cases when such reimbursement is practically certain and the asset amount can be reliably measured. In the Group, each provision is used only to meet the disbursements for which it was originally recognized.

Provisions are measured with the best estimate from Management of the disbursements necessary to cancel the present obligation, at the end of the period being reported, taking into account the risks and the corresponding uncertainties. When a provision is measured using the estimated cash flow to cancel the current obligation, its carrying value corresponds to the present value of such cash flow, using for the discount a calculated rate with reference to the market returns of the bonds issued by the National Government. In Colombia, the performance of the TES Bonds (Public Debt Securities issued by the General Treasury of the Nation) must be used at the end of the reporting period.

The expense corresponding to any provision is presented in the statement of comprehensive income in the “result for the period” section net of all reimbursement. The increase in provision due to the time elapsed is recognized as financial expense.

### **Dismantlement reserve**

To the extent that there is a legal or implicit obligation of dismantling or restoring, EPM Group recognizes as part of the cost of a fixed asset in particular, the estimation of the future costs EPM Group expects to incur in to perform the dismantlement or restoring and its balancing entry is recognized as a provision for dismantling and restoring costs. The dismantling cost is depreciated over the estimated useful life of the fixed asset.

Dismantlement or restoring costs are recognized at the present value of the expected costs of cancelling out the obligation using estimated cash flows. Cash flows are discounted at a particular rate before taxes, which should be determined by taking as a reference, the market yields of the bonds issued by the National Government. In Colombia, in terms of risk-free rates, the yield on the TES Bonds (Public Debt Securities issued by the General Treasury of the Nation) must be used.

Future estimated dismantlement or restoration costs are annually revised. Changes in the future estimated costs, in the dates estimated for the disbursements, or in the discount rate applied are added or deducted from the asset cost, without exceeding the carrying value of the asset; any surpluses are immediately recognized in results for the period. The change in the provision value associated to the time elapsed is recognized as financial expense in the statement of comprehensive income in the “result for the period” section.

### **Onerous Contracts**

EPM Group recognizes as provisions the current obligations that are derived from an onerous contract. As provisions and its counterpart is in the statement of comprehensive income in the result section of the period. An onerous contract is the one in which the unavoidable costs of complying with the obligations it implies, exceed the economic benefits that are expected to receive therefrom.

### **Contingent liabilities**

The possible obligations that arise from past events and the existence of which shall only be confirmed by the occurrence or non-occurrence of one or more uncertain future events that are not entirely under EPM’s control or the current obligations that arise from past events, but that it is not probable, but possible, that on outlay of resources including economic benefits be required to liquidate the obligation or the amount of the obligation cannot be measured with enough reliability, are not recognized in the statement of financial position, they are

rather disclosed as contingent liabilities. Contingent liabilities generated in a business combination are recognized at fair value on the acquisition date.

### **Contingent Assets**

Assets of a possible nature, that arise from past successes, the existence of which has to be confirmed only by the occurrence, or the non-occurrence, of one or more uncertain events in the future, that are not entirely under EPM Group's control, are not recognized in the statement of financial position; rather, they are disclosed as contingent assets when their occurrence is probable. Whenever the contingent fact is true, the asset and the revenue associated are recognized in operations. Contingent liabilities acquired in a business combination are initially measured at their fair values, on the acquisition date. At the end of subsequent periods being reported, those contingent liabilities are measured at the amount it would have been recognized and the amount initially recognized less the accrued amortization recognized, whichever is greater.

## **2. 21 Employee benefits**

### **2.21.1. Post-employment benefits**

#### **Defined contribution plans**

The contributions to the defined contribution plans are recognized as expenses in the statement of comprehensive income in the "result for the period" section at the moment when the employee has rendered the service that grants them the right to make the contributions.

#### **Defined Benefit Plans**

Post-employment benefit plans are those in which EPM Group has the legal or implicit obligation to respond for the payments of the benefits that were left to their charge.

For the defined benefit plans, the difference between the fair value of the plan assets and the present value of the plan obligation is recognized as asset or liability in the statement of financial position. The cost of giving benefits under the defined benefit plans is determined separately for each plan, through the actuarial valuation method of the projected credit unit, using actuarial assumptions on the date of the period being reported. Plan assets are measured at fair value, which is based upon the market price information and, in the case of quoted securities, it constitutes the published purchase price.

The actuarial gains or losses, the yield of plan assets and the changes in the asset ceiling effect, excluding the securities included in the net interest on the net defined benefits liabilities (assets), are recognized in the other comprehensive income, in the case of post-employment benefits; and if it is long-term benefits they are recognized in the statement of comprehensive income in the "statement of income" section in the period where they arise. The actuarial gains or losses include the effects of changes in the actuarial assumptions as well as adjustments due to experience.

The net interest on the liabilities (assets) for net defined benefits includes the interest revenue for the plan assets, interest cost for the obligation for defined benefits and interests for the asset ceiling effect.

The current service cost, the past service cost, any settlement or reduction of the plan are immediately recognized in the statement of comprehensive income in the "statement of income" section in the period when they arise.

### **2.21.2. Beneficios corto plazo**

EPM classifies as short-term employee benefits those obligations with the employees that it expects to liquidate during the twelve (12) month period following the closing of the accounting period where the obligation has been generated or the service has been rendered. Some of these benefits are generated from the current labor legislation, from collective bargaining agreements, or from non-formalized practices that generate implicit obligations.

EPM recognizes the short-term benefits at the moment the employee has rendered their services, as the following:

A liability for an amount that shall be repaid to the employee, deducting the amounts already paid before, and its balancing entry as expense for the period, unless another chapter obliges or allows including the payments in the cost of an asset or inventory, for instance, if the payment corresponds to employees the services of whom are directly related to the construction of a work, they shall be capitalized to that asset.

The amounts values already paid before correspond, for instance, to advanced payments of salaries, advanced payments of per diems, among others. If they exceed the corresponding liability, the Company will have to recognize the difference as an asset in the prepaid expenses account, to the extent that the advanced payment gives place to a reduction in the payments to be made in the future or to a cash reimbursement.

According to the foregoing, the accounting recognition of short-term benefits is made upon occurrence of the transactions, regardless of when they are paid to the employee or to the third parties to which the Company has entrusted the provision of certain services.

### **2.21.3. Long-term benefits**

EPM classifies as long-term employee benefits those obligations that it expects to settle after the twelve (12) months following the closing of the accounting exercise or the period where employees provide the related services, i.e., from the month thirteen forward; they are different from the short-term benefits, post-employment benefits, and contract termination benefits.

EPM measures long-term benefits in the same fashion as post-employment defined benefit plans. Although their measurement is not subject to the same uncertainty level, the same following methodology will be applied for its measurement:

- The Company should measure the surplus or deficit in a long-term employee benefit plan using the technique applied for post-employment benefits both for estimating the obligation as well as for the plan assets.
- The Company should determine the value of net long-term employee benefits (assets or liabilities) finding the deficit or surplus of the obligation and comparing the asset ceiling.

The benefits that employees receive year after year throughout their labor life should not be considered “long term” if at the accounting exercise closing each year, the Company has fully delivered them.

### **2.21.4. Benefits for termination**

The company recognizes as benefits for termination, the considerations granted to the employees, payable as result of the decision of the company to terminate the employment agreement to an employee before the normal retirement date or the decision of an employee to accept the voluntary resignation in exchange for those benefits.

## **2. 22 Service concession agreements**

EPM Group recognizes the service concession agreements pursuant to the interpretation requirements of the IFRIC 12 Service Concession Agreements.

This interpretation is applicable to those concessions where:

- The grantor controls or regulates which services the operator with the infrastructure should provide, to whom and at what price; and
- The grantor controls, through the ownership, the right of use, or otherwise, any significant residual participation in the infrastructure at the end of the term of the agreement.

EPM Group does not recognize these infrastructures as property, plant and equipment; it recognizes the consideration received in the contracts that meet the above conditions at its fair value, as an intangible asset to the extent that EPM Group receives a right to make charges to users of the service, provided that these rights are conditioned to the service use level, or as a financial asset, to the extent that there is an unconditional contractual right to receive cash or other financial asset, either directly from the assignor or from a third party.

In those cases, where EPM Group receives payment for the construction services, partly through a financial asset and partly through an intangible asset, each component of the consideration is recorded separately.

Financial assets of service concession agreements are recognized in the consolidated statement of financial position as operating financial assets and subsequently are measured at amortized cost, using the effective interest rate. The evaluation of impairment of these financial assets is made pursuant to the value impairment policy of the financial assets.

Intangible assets of service concession agreements are recognized in the consolidated statement of financial position as intangible assets denominated “intangible assets for service concession agreements” and are amortized on a linear basis within the term of duration thereof.

Revenues from ordinary activities and costs related to the operating services are recognized according to the accounting policy of ordinary revenues and the services related to construction or improvement services according to the accounting policy of construction contracts. Contractual obligations assumed by EPM Group for maintenance of the infrastructure during its operation, or for its return to the assignor at the end of the concession agreement in the conditions specified therein, to the extent that it does not assume a revenue-generating activity, it is recognized following the provisions accounting policy.

## **2. 23 Fair Value**

The fair value is the price that would be received when selling an asset or that would be paid when transferring a liability in an orderly transaction between market participants on the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or liability, EPM takes into account the characteristics of the asset or liability if the market participants take into account these characteristics when valuing the asset or liability on the measurement date. Fair value for measurement and/or disclosure purposes in these financial statements is determined on that basis, except for the transactions of stock-based payments, lease transactions, and the measurements that have certain similarities with the fair value but that are not fair value, such as the realizable value or the value at use. The fair value of all financial assets and liabilities is determined on the date of presentation of the financial statements, for recognition or disclosure in the notes to the financial statements.

The fair value is determined:

- Based upon prices quoted in active or passive markets identical to those the Company can access on the measurement date (level 1).
- Level 2 inputs are inputs other than quoted prices included in Tier 1, which are observable for the asset or liability, directly or indirectly.
- Based upon internal valuation techniques of cash flow discounts or other valuation models, using variables estimated by EPM Group non-observable for the asset or liability, in the absence of variables observed in the market (level 3).

In the note 41 Measurement of fair value on a recurring and non-recurring basis provides an analysis of the fair values of financial instruments and non-financial assets and liabilities and more detail of their measurement.

## **2. 24 Dividends in cash distributed to the owner of the Company**

The group recognizes a liability to make the distributions to the stockholders of the Group in cash when the distribution is authorized and it is no longer at the Group’s discretion. The corresponding amount is recognized directly in the net equity.

## **2.25 Changes in estimates, accounting policies and errors**

### **2.25.1. Changes in accounting estimates**

As of December 31, 2017, the Group did not record significant changes in its financial statements as a result of a revision to its estimated carrying amount.

### **2.25.2. Changes in accounting policies**

As of December 31, 2017, the accounting practices applied in the consolidated financial statements of the Group are consistent with 2016.

**New standards implemented and change in voluntary accounting policies:**

In the current year, the Group has implemented the amendments to the IFRS issued by the International Accounting Standards Board (IASB), which are mandatory for the accounting period beginning on January 1, 2017. On the other side, the General Accounting Office of the Nation, authorized the Group to adopt in advance the amendments to IAS 7 and IAS 12, since the effective date of these amendments established by this body is January 1, 2019.

**IAS 7 Cash flows:** the amendment to IAS 7, issued in January 2016, defines the liabilities derived from financing activities as liabilities "for which the cash flows were or will be classified in the statement of cash flows as cash flows from financing activities". It also emphasizes that new disclosure requirements are also related to changes in financial assets if they meet the same definition.

Requests new information to disclosure about changes in liabilities derived from financing activities, such as: changes in financing cash flows, changes derived from obtaining or losing control of subsidiaries or other businesses, the effect of Changes in foreign exchange rates, changes in fair value and other changes. It also establishes that changes in liabilities derived from financing activities must be disclosed separately from changes in other assets and liabilities, and includes a conciliation between the opening and closing balances in the statement of financial position, for liabilities derived from financing activities. Early adoption is allowed.

The Group evaluated and concluded that these amendments have no material impact on the financial statements and are described in greater detail in note 29 Changes in liabilities for financing activities, where comparative information is presented with the previous period.

**IAS 12 Income tax:** the amendment to IAS 12, issued in January 2016, does not change the underlying principles for the recognition of deferred tax assets, it presents the following clarifications:

- Unrealized losses on debt instruments measured at fair value in financial instruments, but at cost for tax purposes may give rise to deductible temporary differences.
- When an entity assesses whether taxable profits may be available against to which deductible temporary difference may be used, it will consider whether tax legislation restricts the sources of taxable profits against to which it can make deductions at the time of the reversal of that deductible temporary difference. If the tax legislation does not impose these restrictions, an entity will evaluate a deductible temporary difference in combination with all others. However, if the tax legislation restricts the use of losses to be deducted against income of a specific type, a deductible temporary difference will be evaluated in combination only with those of the appropriate type.
- The Entity must confirm if it has sufficient fiscal profits in future periods, comparing deductible temporary differences with future tax profits that exclude tax deductions precedent of the reversal of such deductible temporary differences. This comparison shows the extent to which the future fiscal profit will be sufficient for the entity to deduct the amounts proceeding from the reversal of the deductible temporary differences.
- Possible future taxable profits could include the recovery of some assets of the entity for an amount greater than their book value if there is sufficient evidence that the entity is likely to comply with. That is, in the case of an asset when is measured at fair value, the entity must verify if it is certain that the recovery of the asset is likely to exceed the book value, such as maintaining a fixed-rate debt instrument and collect the contractual cash flows.

**IFRS 12 - Information to disclosure over participations in other Entities:** the amendment to IFRS 12, which forms part of the annual improvements to the standards IFRS 2014-2016 issued in December 2016, clarifies the scope of the standard, adding the indication that the requirements of this IFRS apply to the interests of subsidiaries, joint arrangements, associates and unconsolidated structured entities that are classified as held for sale or discontinued operations in accordance with IFRS 5 Assets non-current held for sale and discontinued

operations, but the exception to disclose information about them is retained in accordance with paragraph B17 of the standard.

These amendments have no material impact on the financial statements.

### 2.25.3. Application of new and revised standards

The new standards and modifications to the IFRS, as well as the interpretations (IFRIC) that have been published in the period, but that have not been yet implemented by the company are detailed below:

Note: From the following table, clarity is given, that there are not yet adopted in Colombia, the 2015-2017 Cycle, IFRS 17, IFRS 16, IFRIC 23, IFRIC 22 and the amendments to IAS 40, IFRS 9, IFRS 2 and IAS 28

| Standard                                                                                                                                                                                  | Date of mandatory application | Type of change |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------|
| IFRS 17 Insurance Contracts                                                                                                                                                               | January 1, 2021               | New            |
| IFRIC 23 Uncertainty regarding the treatment of income tax                                                                                                                                | January 1, 2019               | New            |
| IFRS 16 - Leases                                                                                                                                                                          | January 1, 2019               | New            |
| IAS 28 -Investments in Associates and Join Ventures (annual improvements to IFRS standards Cycle 2014-2016 - Measurement at fair value of an associate or joint venture.)                 | January 1, 2019               | Modification   |
| IFRS 9 -Financial Instruments - (characteristics of early cancellation with negative compensation)                                                                                        | January 1, 2019               | Modification   |
| IFRS 3 Business Combinations (annual improvements to the IFRS standards cycle 2015-2017 - Interest previously maintained in a joint venture when the control of the business is obtained) | January 1, 2019               | Modification   |
| IFRS 11 Joint agreements (annual improvements to IFRS standards cycle 2015-2017 - Interest previously maintained in a joint venture when joint control is obtained)                       | January 1, 2019               | Modification   |
| IAS 12 Income Tax (annual improvements to the IFRS standards cycle 2015-2017 - Consequences of income tax, of payments in financial instruments classified as equity)                     | January 1, 2019               | Modification   |
| IAS 23 Costs for loans (annual improvements to the IFRS standards cycle 2015-2017 - Costs for loans subject to capitalization)                                                            | January 1, 2019               | Modification   |
| IFRIC 22 Foreign Currency Operations and Advance Consideration                                                                                                                            | January 1, 2018               | New            |
| IFRS 15 - Revenue from contracts with customers                                                                                                                                           | January 1, 2018               | New            |
| IFRS 4 - Insurance Contracts (Application of IFRS 9 Financial instruments with IFRS 4 Insurance contracts)                                                                                | January 1, 2018               | Modification   |
| IAS 28 -Investments in Associates and Join Ventures (annual improvements to IFRS standards Cycle 2014-2016 - Measurement at fair value of an associate or joint venture.)                 | January 1, 2018               | Modification   |
| IAS 40 - Investment Property (transfers in investment properties)                                                                                                                         | January 1, 2018               | Modification   |

Each standard is detailed as follows:

**IFRS 17 Insurance Contract:** issued in May 2017, replacing IFRS 4, which was addressed as a provisional standard, which was being prepared in phases.

IFRS 17 resolves the comparison disadvantages generated by the application of IFRS 4, given that it was allowed to apply local rules and historical values in insurance contracts, now with this new standard, all insurance contracts will be recorded in a consistent manner and at current values, generating more useful information for interest groups, which will allow a better understanding of the financial position and profitability of insurance companies.

The Group is evaluating the impacts that the application of this new norm could generate.

The amendments will be of mandatory application for annual periods beginning from January 1, 2021. Early application is allowed if IFRS 9 and IFRS 15 are applied.

**IFRIC 23 the uncertainty regarding the treatment of income tax:** issued in June 2017, this Interpretation tries to solve the problem of how to reflect in the financial statements, the uncertainty that arises from the fact that an accounting treatment applied in the tax returns is or not accepted by the tax authority. Due to that uncertainty, the accounting treatment is considered an "uncertain accounting treatment" to which it is evaluated whether it is or not probable that the tax authority accepts it. If accepted, it must be determined the accounting tax position consistent with the tax treatment used or planned to be used in the income tax returns of the entity and if not, it must be reflected the effect of the uncertainty in the determination of the related accounting tax position. In the latter case, the effect of the uncertainty must be estimated, using either the most probable quantity or the expected value method, depending on which method best predicts the solution of the uncertainty.

The Interpretation allows to apply any of the following approaches for the transition:

- **Complete retrospective approach:** this approach can be used only if is possible without the use of retrospective. The application of the new Interpretation will be accounted for in accordance with IAS 8, which means that the comparative information will have to be re-issued; or
- **Retrospective modified approach:** the re-issuance of comparative information is not required or allowed according to this approach. The cumulative effect of applying initially the Interpretation will be recognized in the opening equity at the date of the initial application, being the beginning of the annual reporting period in which the entity first applies the Interpretation.

The Group is evaluating the impacts that the application of this interpretation could generate.

The interpretation will be of mandatory application for annual periods beginning from January 1, 2019. Early application is allowed.

**IFRS 16 Leases:** issued in January 2016, this new standard introduces an integral model for the identification of leases and accounting treatments for landlords and tenants. It will replace the current standards for the accounting treatment of the leases included in IAS 17 Leases and related interpretations.

The distinction between leases and service contracts is based on the control of the customer over the identified asset. For the lessee, the distinction between operating leases (off-balance sheet) and finance leases (on the balance sheet) is removed and replaced with a model in which an asset (right of use) and its corresponding liability must be recognized for all Leases (i.e. all on the balance sheet), except for short-term leases and leases of low-value assets.

Assets (right of use) are initially measured at cost and subsequently measured at cost (with certain exceptions) less accumulated depreciation and impairment losses, adjusted for any reassessment of the lease liability. Lease liability is initially measured at the present value of future lease payments. Subsequently, the lease liability is adjusted to interest and rent payments, as well as to the impact of lease modifications, among others. In addition, the classification of cash flows will also be affected since operating lease payments under IAS 17 are presented as operating cash flows; While in model IFRS 16, lease payments will be divided into amortization to capital and a portion of interest that will be presented as cash flow from financing and operation, respectively.

In contrast to tenant accounting, IFRS 16 includes as accounting requirements for the lessor the same as that provided by IAS 17, i.e., it continues to require a lessor to classify a lease as an operating lease or a finance lease.

This new standard requires more detail in the disclosures.

The Group is evaluating the impacts that could be generated by the application of this new standard, since it is planned that in 2018 technical guidelines and definitions will be elaborated and the impacts for the implementation in 2019 will be identified.

**IAS 28 - Investments in associates and joint ventures:** the amendment to IAS 28, which is part of the annual improvements to IFRS Cycle 2014-2016 issued in December 2016, clarifies that when an investment in an associate or joint venture Directly or indirectly maintained by an entity that is a venture capital organization or a collective investment trust, investment trust or other similar entity, including investment insurance funds, the entity may choose to measure such investments at fair value With changes in results in accordance with IFRS 9. An entity shall make this separate choice for each associate or joint venture at the initial recognition of the associate or joint venture. It also clarifies that if an entity that is not itself an investment entity has a stake in an associate or joint venture that is an investment entity, the entity applying equity method may retain the fair value measurement applied by That associate or joint venture that is an investment entity to the interests of the associate or joint venture that is an investment entity in subsidiaries. This choice is made separately for each associated investment entity or joint venture, on the date after the date on which: a) the investment in the associate or joint venture is initially recognized; B) the associated investment or joint venture becomes an investment entity; And (c) the associated investment entity or joint venture becomes a Parent.

These changes do not have any material impact on the financial statements.

The amendments will be mandatory for annual periods beginning on or after January 1, 2018. Early application is permitted.

**Long-term investments in associates and joint ventures:** Additionally, in the amendment to IAS 28, issued in October 2017, it is established that IFRS 9 must be applied to other financial instruments in associates or joint ventures to which it is not applied the participation method. These include long-term interests that, in essence, form part of the entity's net investment in an associate or joint venture. The modifications will be of obligatory application for the annual periods that begin as of January 1, 2019. Its early application is allowed.

**IFRS 9 Financial Instruments:** The amendments to IFRS 9, related to prepaid features with negative compensation, allow companies to measure financial assets, prepaid with negative compensation at amortized cost or fair value, through other comprehensive income if a specific condition is met; instead of do it at fair value with profit or loss.

The company is evaluating the impacts that the application of this modification could generate.

The modifications will be of obligatory application for the annual periods that begin as of January 1, 2019

**IFRS 3 Business Combinations:** The amendment to IFRS 3, which forms part of the annual improvements to the IFRS 2015-2017 Cycle Standards issued in December 2017, establishes that when is obtained control of a business that was previously part of a joint operation and was entitled to the assets and obligations for the related liabilities to that joint operation before the acquisition date, the transaction is a business combination carried out in stages and the interest previously held in the joint operation must be remeasured.

These amendments have no material impact on the financial statements.

The modifications will be of obligatory application for the annual periods that begin as of January 1, 2019. Its early application is allowed.

**IFRS 11 Joint arrangements:** the amendment to IFRS 11, which is part of the annual improvements to the IFRS 2015-2017 Cycle standards issued in December 2017, establishes that when is obtained the joint control of a business that was previously part of a joint operation but did not have the joint control, the interest previously held in the joint operation should not be measured again.



These amendments have no material impact on the financial statements.

The modifications will be of obligatory application for the annual periods that begin as of January 1, 2019. Its early application is allowed.

**IAS 12 Income Tax:** the amendment to IAS 12, which forms part of the annual improvements to the IFRS 2015-2017 regulations issued in December 2017, clarifies that all the consequences over the income tax of dividends (distribution of the benefits) should be recognized in results, other comprehensive income or equity, depending on the initial recognition of the transaction. Specifically, it establishes that an entity will recognize the consequences over the income tax of dividends as defined in IFRS 9 when it recognizes a liability to pay a dividend. The consequences of income tax on dividends are more directly linked to past transactions or events that generated distributable profits, than to distributions made to owners. Therefore, an entity will recognize the consequences over the income tax of dividends in profit or loss, other comprehensive income or equity depending on where the entity originally recognized those transactions or past events.

The company is evaluating the impacts that the application of this modification could generate.

The modifications will be of obligatory application for the annual periods that begin as of January 1, 2019. Its early application is allowed.

**IAS 23 Loan costs:** the amendment to IAS 23, which forms part of the annual improvements to the IFRS 2015-2017 Cycle rules issued in December 2017, establishes that to the extent that the funds of an entity proceed from generic loans and use them to obtain an eligible asset, this will determine the amount of the capitalization costs applicable by applying a capitalization rate to the disbursements made on such asset. The capitalization rate will be the weighted average of the borrowing costs applicable to all loans received by the entity pending during the period. However, an entity shall exclude from this calculation the borrowing costs applicable to loans specifically agreed to finance an eligible asset until substantially completed all the activities necessary to prepare that asset for its intended use or sale. The amount of borrowing costs that an entity capitalizes during the period will not exceed the total borrowing costs incurred during the same period.

The company is evaluating the impacts that the application of this modification could generate.

The modifications will be of obligatory application for the annual periods that begin as of January 1, 2019. Its early application is allowed.

**IFRIC 22 Transactions in foreign currency and prepaid consideration:** issued in December 2016, this Interpretation deals with how to determine the date of the transaction, to define the exchange rate that will be used in the initial recognition of assets, expenses or income (or part of it), on the derecognition of a non-monetary asset or non-monetary liability resulting from the payment or receipt of an advance in foreign currency. In this regard, the IFRS Interpretations Committee reached to the following conclusion: the date of the transaction, for purposes of determining the exchange rate, is the date of the initial recognition of the non-monetary advance payment asset or of the liability by deferred income. If there are several payments or receipts in advance, a transaction date is established for each payment or receipt. Does not apply when an entity measures the related asset, expense or income on the initial recognition at its fair value or at the fair value of the consideration paid or received on a date other than the date of the initial recognition of the non-monetary asset or the non-monetary liability derived from the anticipated consideration (for example, the measurement of goodwill in accordance with IFRS 3 Business Combinations). Neither it applies to income tax and insurance contracts.

These modifications have no impact on the financial statements, since they coincide with the current practice of the company.

The interpretation will be of obligatory application for annual periods beginning on or after January 1, 2018. Early application is allowed.

**IFRS 15 Revenues from ordinary activities proceeding of contracts with customers:** issued in May 2014, is a new standard applicable to all income contracts of ordinary activities proceeding of contracts with customers, except leases, financial instruments and insurance contracts that are regulated by its respective standard. It is

a joint venture with the Financial Accounting Standards Board - FASB to eliminate differences in revenue recognition between IFRS and US GAAP.

The clarifications made in April 2016 to IFRS 15 include the following aspects:

a. Identification of the principal or agent acting

When a third party is involved in providing goods or services to a customer, the Group will determine whether the nature of its commitment is a performance obligation consisting in providing the goods or services specified by itself (that is, it acts as a principal) or in organizing for the third party the supply of those goods or services (i.e. acts as an agent).

b. Variable Consideration

It is any amount that is variable according to the contract. The amount of the consideration may vary due to discounts, refunds, compensations, reimbursements, credits, price reductions, incentives, performance premiums, penalties or other similar elements. The agreed consideration can also vary if the right of an entity to receive it depends on whether or not a future event occurs. For example, a consideration amount would be variable if a product with a right of return was sold or a fixed amount is promised as a performance premium at the time of achieving a specified milestone.

c. Methods of application

The standard allows the use of two methods for the initial application as follows: Complete retrospective method and Modified method. In the Group, this rule is applied following the modified method.

**Modified method:** With the modified approach, the accumulated effect of the initial application shall be recognized as an adjustment to the opening balance of the accumulated earnings (or other component of equity, as applicable) of the annual reporting period that includes the initial application date. Under this transition method, an entity applies this Standard retroactively only to contracts that are not completed on the date of initial application (for example, January 1, 2018 for an entity with December 31 as the end of the year).

For reporting periods that include the initial application date, an entity will provide all of the following additional disclosure information:

- a. The amount for which each line item in the financial statements is affected in the current reporting period by the application of this Standard compared to IAS 11 and IAS 18 and related Interpretations that were in effect prior to the change; and
- b. An explanation of the reasons for the identified significant changes.

This new standard intends to improve the inconsistencies and weaknesses of IAS 18 and provide a model that will facilitate the comparability of companies of different industries and regions. It provides a new model for revenue recognition and more detailed requirements for contracts with multiple elements. In addition, it requires more detailed disclosures.

The basic principle of IFRS 15 is that an entity recognizes revenues from ordinary activities in a way that represents the transfer of goods or services committed with clients in exchange for an amount that reflects the consideration that the entity expects to be entitled to change of such goods or services.

An entity recognizes revenue from ordinary activities in accordance with that basic principle by applying the following steps:

Stage 1: Identify the contract (or contracts) with the customer

Stage 2: Identify performance obligations in the contract

Stage 3: Determine the price of the transaction

Stage 4: Assign the price of the transaction between the performance obligations of the contract

Stage 5: Recognize the income from ordinary activities when (or as) the entity meets a performance obligation

Under IFRS 15, an entity recognizes revenue when an obligation is satisfied, for example, when the "control" of the goods or services underlying the execution of the particular obligation is transferred to the customer. More specific guidance has been added to the standard to handle specific scenarios. Further disclosure is required.

It would replace the standards IAS 18, Revenues and IAS 11 Construction Contracts, IFRIC 13 Customer loyalty programs, IFRIC 15 Agreements for the Construction of Real Estate, IFRIC 18 Transfers of assets from customers and SIC 31 Barter Transactions Involving Advertising Services.

The Group continues evaluating the impacts generated by the application of this new standard, and concluded that there are no material impacts on the financial statements.

The amendments will be mandatory for annual periods beginning on or after January 1, 2018. Early application is permitted.

**IFRS 4 Insurance contracts:** issued in March 2004, is a standard in the process of phased training, for those who issue insurance and reinsurance contracts. The ascent to Phase II has been initiated, which has involved some exemptions from applying other standards, for example, an entity will apply those modifications, which allow insurers who meet specific criteria to use a temporary exemption from IFRS 9 for periods Per annum beginning on or after 1 January 2018, insurers are also permitted to reclassify some or all of their financial assets under specified circumstances so that they are measured at fair value through profit or loss but affecting other comprehensive income.

This implies that changes in the application of IFRS 9 "Financial instruments" with IFRS 4 "Insurance contracts" (Amendments to IFRS 4) offer two options for entities that issue insurance contracts within the scope of the IFRS 4:

- a. An option that allows the entities to reclassify, from the profit or loss to other comprehensive income, part of the income or expenses derived from designated financial assets; This is the so-called overlapping approach;
- b. An optional temporary exemption from the application of IFRS 9 for entities whose predominant activity is the issuance of contracts within the scope of IFRS 4; This is the so-called deferral approach.

The application of both approaches is optional and an entity is allowed to stop applying them before the new standard of insurance contracts is applied.

An entity would apply the overlapping approach retrospectively to qualifying financial assets when it first applies IFRS 9. The application of the overlap approach requires the disclosure of sufficient information to enable financial statement users to understand how the reclassified amount is calculated in Period Effect of such reclassification on the financial statements.

An entity would apply the deferral approach for annual periods beginning on or after January 1, 2018. The application of the deferral approach must be disclosed in conjunction with information that allows the users of financial statements to understand how the insurer qualified for The temporary exemption and Compare the insurers applying the temporary exemption with the entities applying IFRS 9. The deferral can only be used for the three years following January 1, 2018.

The Group is evaluating the impacts that could be generated by the application of this new standard.

**IAS 40 Investment Property:** The amendment made in December 2016, has an effect on the transfer of investment property (reclassifications) motivated by "change in use", extending the latter term: a change in use occurs when the property Meets, or fails to meet, the definition of investment property and there is evidence of change in use. In isolation, a change in management's intentions for the use of a property does not provide evidence of a change in use. This is followed by the examples provided by the standard in paragraphs 57 and 58 (not substantially modified). Paragraphs 84C to 84E and 85G were added to define the transitional provisions when transferring investment property.

The Group is evaluating the impacts that could be generated by the application of this new standard.

The amendments shall be mandatory for annual periods beginning on or after 1 January 2018.

At the current stage of the analysis, still under development, it is not possible to provide a reasonable estimate of the effects that these standards will have.

#### **2.25.4. Errors from previous periods**

As of December 31, 2017, the company did not make adjustments to the separate financial statements as a result of errors of previous periods.

#### **2.25.5. Changes in presentation**

As of December 31, 2017, there were no significant changes in presentation to the separate financial statements.

### **Nota 3. Significant accounting judgments, estimates, and causes of uncertainty in the preparation of financial statements**

The following are the significant judgments and assumptions, including those that involve accounting estimates that EPM Group's management used in the application of the accounting policies under IFRS, and that have significant effect on the values recognized in the separate financial statements.

Estimates are based upon historic experience and as a function of the best information available on the facts analyzed as of December 31, 2016 and 2015. These estimates are used for determining the value of the assets and liabilities in the separate financial statements, when it is not possible to obtain such value from other sources. EPM Group evaluates its estimates on a regular basis. Actual results may differ from those estimates.

The significant estimates and judgments made by EPM Group are described below:

- **Evaluation of the existence of impairment indicators for the assets, goodwill and valuation of assets for determining the existence of value impairment losses.**

The condition of the assets is revised on each report presentation date. Recognized in order to determine whether there are indications that any of them has suffered an impairment loss, impairment indicators are revised. If there is impairment loss, the recoverable amount of the asset is affected; if the estimated recoverable amount is lower, it is reduced up to its fair value and an impairment loss is immediately recognized in operations.

The evaluation of the existence of value impairment indicators is based on external and internal factors, and in turn on quantitative and qualitative factors. Evaluations are based on financial results, the legal, social and environmental settings, and the market conditions; significant changes in the scope or fashion in which it is used or expected to use the asset or cash-generating unit (UGE, for its Spanish initials) and evidence about obsolescence or physical deterioration of and asset or CGU (cash generating unit), among others.

Determining whether goodwill has suffered impairment implies the calculation of the value at use of the cash generating units to which it has been assigned. The calculation of the value at use requires that the entity determines the future cash flows that should arise from the cash-generating units and a discount rate appropriate to calculate the current value. When the actual future cash flows are lower than expected, an impairment loss may arise.

- **Hypothesis used in the actuarial estimate of the post-employment obligations with employees.**

The assumptions and hypothesis used in the actuarial studies include: demographic assumptions and financial assumptions; the former refer to the characteristics of the current and past employments, and relate to the mortality rate, employee turnover rates; the latter relate to the discount rate, the increases in future salaries, and the changes in future benefits.

- **Useful life and residual values of property, plant and equipment, and intangibles**

In the assumptions and hypothesis used for determining the useful lives, technical aspects such as the following are considered: periodical maintenances and inspections made to the assets; failure statistics; environmental conditions and operating environment; protection systems; replacement processes; obsolescence factors,

recommendations of manufacturers, climate and geographical conditions; and experience of the technicians that know the assets. Aspects such as market values, reference magazines, and historic sales data are considered for determining the residual value.

- **Assumptions used for calculating the fair value of financial instruments including the credit risk.**

EPM Group discloses the fair value corresponding to each class of financial instrument in such a way that allows comparing it with the carrying values. Macro-economic projections calculated within each Group company are used. Investment portfolio is valued at market price. In its absence, a similar one is looked for in the market and if not, assumptions are used.

Macro-economic rates are projected using the cash-flow methodology. Derivatives are estimated at fair value. Accounts receivable are estimated at the market rate in force and effect for similar credits. Accounts receivable from employees are valued in a similar way as massive debtors, except for mortgage (housing) credits.

The methodology used for equity investments is the cash flow; those quoted in the stock exchange are estimated at market prices; all others, are valued at historic cost.

- **Likelihood of occurrence and value of contingent or uncertain-value liabilities.**

The assumptions used for uncertain or contingent liabilities include the classification of the legal process by the “expert judgment” of the areas professionals, the type of contingent liability, the possible legislative changes, and the existence of high-courts’ jurisprudence that applies to the concrete case, the existence of similar cases in the company, the study and analysis of the substance of the issue, the guarantees existing at the moment when the facts occur. The Company shall disclose and not recognized in the financial statements those obligations classified as “possible”. Obligations classified as remote are neither disclosed nor recognized.

- **Future disbursements for asset dismantlement and retirement obligations.**

In the assumptions and hypothesis used for determining future disbursements for asset dismantlement and retirement obligations, aspects such as the following were considered: estimate of future outlays in which the Group companies must incur for the execution of those activities associated to asset dismantlement on which legal or implicit obligations have been identified; the initial date of dismantlement or restoration; the estimated date of finalization; and the discount rates.

- **Determination of the existence of financial or operating leases based on the transfer of risks and benefits of the leased assets.**

The significant assumptions that are considered in the Group to determine the existence of a lease include the assessment of the conditions if the right to control the use of the asset is transmitted for a period of time in exchange for a consideration, that is, it is evaluated The existence of an identified asset; The right to obtain substantially all economic benefits from the use of the asset over the period of use; The right to direct how and for what purpose the asset is used throughout the period of use; Right to operate the asset over the period's use without any changes in the operating instructions.

- **Recoverability of deferred tax assets.**

Deferred tax asset in the Group has been generated by the temporary differences that generate future fiscal consequences in the financial position of Group Companies; these differences are essentially represented in fiscal assets that exceed the assets under IFRS; and in fiscal liabilities, lower than the liabilities under IFRS, such as it is the case of the pension liability components, the amortized cost of bonds, financial leasing, and other sundry provisions and contingencies provision.

The Group’s deferred tax asset is recovered in the net income taxed on the current income tax generated in each Group company.

- **Determination of portfolio deterioration.**

For the calculation of the expected credit loss, each obligation is assigned an individual probability of non-payment that is calculated from a probability model involving sociodemographic, product and behavior variables.

The model uses a window of twelve months, which is why it is estimated that an obligation has to be provisioned at a certain percentage in the same period. The model will be applied based on the scorecard developed taking into account the information of each Group Company. The models are defined according to the information available and the characteristics of the population groups for each one. Although the methodology applies to all accounts with balance, some exclusions must be taken into account, such as: Accounts written-off; Self-consumptions; Contributions; Public Lighting and in general charges from third parties. For its calculation, it is previously defined the moment from which it is considered that an obligation was breached and will not be recovered.

With this information the calculation of the expected request is made as follows:

$$EL = PD \times ED \times LGD, \quad \text{where:}$$

**Probability of Default (PD):** this corresponds to the probability that, within a period of twelve months, the debtors of a certain segment and portfolio rating incur in default.

**Exposure at default (ED):** corresponds to the balance of capital, balance of interests, and other current charges of the obligations.

**Loss given default (LGD):** defined as the economic deterioration that the entity would incur in the event that any of the non-compliance situations materialize.

- **Estimate of income.**

The Group recognizes income from the sale of goods in the period of transfer of risks and benefits and those arising from the provision of services when they are delivered to the customer, regardless of the date on which the corresponding invoice is drawn up, to carry out This estimate takes information from contracts or agreements with customers and thus establishes the value to be recognized in income.

For other concepts than the provision of public residential services, the Group estimates and recognizes the value of revenues from sales of goods or services rendered based on the terms or conditions of interest rate, interim period, of each contract Which originates the sale.

In the month after recording the estimated income, its value is adjusted by the difference between the value of the actual income already known against the estimated income.

## Nota 4. Property, plant and equipment, net

The following is the detail of the carrying amount of property, plant and equipment:

| Property, plant and equipment           | 2017              | 2016              |
|-----------------------------------------|-------------------|-------------------|
| Cost                                    | 26.644.181        | 23.810.139        |
| Accumulated depreciation and impairment | (3.510.672)       | (3.080.187)       |
| <b>Total</b>                            | <b>23.133.509</b> | <b>20.729.952</b> |

- Amounts expressed in millions of colombian pesos -

The following is the detail of the carrying amount of the properties, plant and equipment that are temporarily out of service.

| <b>Properties, plant and equipment that are temporarily out of service</b>       | <b>2017</b>   | <b>2016</b>   |
|----------------------------------------------------------------------------------|---------------|---------------|
| Plants, ducts and tunnels                                                        | 53.719        | 25.529        |
| Lands and buildings                                                              | 9.076         | 7.098         |
| Other property, plant and equipment                                              | -             | 30            |
| Machinery and equipment                                                          | 34            | 41            |
| <b>Total properties, plant and equipment that are temporarily out of service</b> | <b>62.829</b> | <b>32.698</b> |

*Amounts expressed in millions of colombian pesos -*

The most significant variation in plants, ducts and tunnels is due to the loss that occurred at la Central Playas, which is still under repair and is expected to enter in service in the short term.

The remaining information refers to the components of the power generation plants: Rio Abajo, Dolores, Calera, Limón and Piedras.

As of December 31, 2017 and 2016, the company does not possess property, plant and equipment withdrawn from its use and that have not been classified as non-current assets held for sale.

The movement of the cost, depreciation and impairment of property, plant and equipment is detailed below:

| 2017                                                                | Networks, lines and cables | Plants, ducts y tunnels | Constructions in progress <sup>(1)</sup> | Lands and buildings | Machinery and equipment | Communication and computer equipment | Furniture and fixtures and office equipment | Other property, plant and equipment <sup>(2)</sup> | Total              |
|---------------------------------------------------------------------|----------------------------|-------------------------|------------------------------------------|---------------------|-------------------------|--------------------------------------|---------------------------------------------|----------------------------------------------------|--------------------|
| Balance as of January 1                                             | 4.436.917                  | 7.133.077               | 6.647.660                                | 5.039.129           | 165.101                 | 161.379                              | 53.025                                      | 173.851                                            | 23.810.139         |
| Additions 3                                                         | 35.251                     | 27.982                  | 2.762.297                                | 24.851              | 9.412                   | 37.299                               | 925                                         | 70.284                                             | 2.968.301          |
| Advanced payments (amortized) made to third parties                 | -                          | -                       | 17.960                                   | -                   | -                       | -                                    | -                                           | 1.195                                              | 19.155             |
| Transfers (-/+)                                                     | 364.046                    | 422.611                 | (961.753)                                | 22.310              | 33.672                  | 58                                   | 14.601                                      | (17.798)                                           | (122.253)          |
| Disposals (-)                                                       | (356)                      | (25.117)                | (157)                                    | (247)               | (1.146)                 | (1.040)                              | (121)                                       | (1.717)                                            | (29.901)           |
| Other changes                                                       | 224.590                    | (235.840)               | (15.985)                                 | 25.189              | (533)                   | (99)                                 | -                                           | 1.418                                              | (1.260)            |
| <b>Balance as of December 31</b>                                    | <b>5.060.448</b>           | <b>7.322.713</b>        | <b>8.450.022</b>                         | <b>5.111.232</b>    | <b>206.506</b>          | <b>197.597</b>                       | <b>68.430</b>                               | <b>227.233</b>                                     | <b>26.644.181</b>  |
| <b>Accumulated depreciation and impairment</b>                      |                            |                         |                                          |                     |                         |                                      |                                             |                                                    |                    |
| Accumulated depreciation and impairment as of January 1             | (1.111.517)                | (1.205.277)             | -                                        | (51.524)            | (79.178)                | (99.246)                             | (23.243)                                    | (50.202)                                           | (3.080.187)        |
| Depreciation of the period                                          | (144.633)                  | (190.439)               | -                                        | (57.986)            | (11.044)                | (26.102)                             | (5.118)                                     | (7.399)                                            | (442.721)          |
| Disposals (-)                                                       | 192                        | 8.795                   | -                                        | 82                  | 979                     | 117                                  | 1.467                                       | 12.601                                             | 12.601             |
| Other changes                                                       | (23)                       | (29)                    | -                                        | (13)                | (47)                    | 40                                   | (121)                                       | (172)                                              | (365)              |
| <b>Accumulated depreciation and impairment as of December 31</b>    | <b>(1.255.981)</b>         | <b>(1.386.950)</b>      | <b>-</b>                                 | <b>(569.441)</b>    | <b>(89.290)</b>         | <b>(124.339)</b>                     | <b>(28.365)</b>                             | <b>(56.306)</b>                                    | <b>(3.510.672)</b> |
| <b>Total properties, plant and equipment as of December 31, net</b> | <b>3.804.467</b>           | <b>5.935.763</b>        | <b>8.450.022</b>                         | <b>4.541.791</b>    | <b>117.216</b>          | <b>73.258</b>                        | <b>40.065</b>                               | <b>170.927</b>                                     | <b>23.133.509</b>  |
| <b>Advanced payments made to third parties</b>                      |                            |                         |                                          |                     |                         |                                      |                                             |                                                    |                    |
| Balance as of January 1                                             | -                          | -                       | 20.350                                   | -                   | -                       | -                                    | -                                           | -                                                  | 20.350             |
| Movement (+)                                                        | -                          | -                       | 71.536                                   | -                   | -                       | -                                    | -                                           | 1.204                                              | 72.740             |
| Movement (-)                                                        | -                          | -                       | (53.576)                                 | -                   | -                       | -                                    | -                                           | (9)                                                | (53.585)           |
| <b>Balance as of December 31</b>                                    | <b>-</b>                   | <b>-</b>                | <b>38.310</b>                            | <b>-</b>            | <b>-</b>                | <b>-</b>                             | <b>-</b>                                    | <b>1.195</b>                                       | <b>39.505</b>      |

- Amounts expressed in millions of Colombian pesos -

| 2016                                                                | Networks, lines and cables | Plants, ducts y túnnels | Constructions in progress <sup>(1)</sup> | Lands and buildings | Machinery and equipment | Communication and computer equipment | Furniture and fixtures and office equipment | Other property, plant and equipment <sup>(2)</sup> | Total              |
|---------------------------------------------------------------------|----------------------------|-------------------------|------------------------------------------|---------------------|-------------------------|--------------------------------------|---------------------------------------------|----------------------------------------------------|--------------------|
| Cost initial balance                                                | 3.919.606                  | 6.859.853               | 4.904.192                                | 4.959.471           | 139.192                 | 170.423                              | 47.700                                      | 274.696                                            | 21.275.133         |
| Additions 3                                                         | 30.057                     | 14.027                  | 2.626.508                                | 5.449               | 9.640                   | 12.492                               | 659                                         | (29.106)                                           | 2.669.726          |
| Advanced payments (amortized) made to third parties                 | (7)                        | -                       | (27.743)                                 | -                   | -                       | -                                    | -                                           | -                                                  | (27.750)           |
| Transfers (-/+)                                                     | 488.255                    | 227.921                 | (836.544)                                | 48.829              | 17.371                  | 1.602                                | 5.346                                       | (11.157)                                           | (58.377)           |
| Disposals (-)                                                       | (319)                      | (16.116)                | -                                        | (1.879)             | (1.184)                 | (23.082)                             | (569)                                       | (2.016)                                            | (45.165)           |
| Other changes                                                       | (675)                      | 47.392                  | (18.753)                                 | 27.259              | 82                      | (56)                                 | (111)                                       | (58.566)                                           | (3.428)            |
| <b>Cost final balance</b>                                           | <b>4.436.917</b>           | <b>7.133.077</b>        | <b>6.647.660</b>                         | <b>5.039.129</b>    | <b>165.101</b>          | <b>161.379</b>                       | <b>53.025</b>                               | <b>173.851</b>                                     | <b>23.810.139</b>  |
| <b>Accumulated depreciation and impairment</b>                      |                            |                         |                                          |                     |                         |                                      |                                             |                                                    |                    |
| Accumulated depreciation and impairment as of January 1             | (754.425)                  | (1.117.647)             | -                                        | (704.973)           | (70.935)                | (91.682)                             | (19.912)                                    | (43.020)                                           | (2.802.594)        |
| Depreciation of the period                                          | (130.976)                  | (191.207)               | -                                        | (55.817)            | (10.221)                | (28.589)                             | (3.847)                                     | (9.668)                                            | (430.325)          |
| Impairment of the period - See notes 7 and 29                       | (418.382)                  | (86.876)                | -                                        | (55.818)            | (1.721)                 | (305)                                | (16)                                        | (1.311)                                            | (564.429)          |
| Reversal of loss of impairment (-) - See notes 7 and 28             | 192.420                    | 183,011                 | -                                        | 304.978             | 2.957                   | 19                                   | 185                                         | 1.979                                              | 685.549            |
| Disposals (-)                                                       | 119                        | 7.295                   | -                                        | 142                 | 811                     | 21.363                               | 508                                         | 1.684                                              | 31.922             |
| Other changes                                                       | (273)                      | 147                     | -                                        | (36)                | (69)                    | (52)                                 | (161)                                       | 134                                                | (310)              |
| <b>Accumulated depreciation and impairment as of December 31</b>    | <b>(1.111.517)</b>         | <b>(1.205.277)</b>      | <b>-</b>                                 | <b>(511.524)</b>    | <b>(79.178)</b>         | <b>(99.246)</b>                      | <b>(23.243)</b>                             | <b>(50.202)</b>                                    | <b>(3.080.187)</b> |
| <b>Total properties, plant and equipment as of December 31, net</b> | <b>3.325.400</b>           | <b>5.927.800</b>        | <b>6.647.660</b>                         | <b>4.527.605</b>    | <b>85.923</b>           | <b>62.133</b>                        | <b>29.782</b>                               | <b>123.649</b>                                     | <b>20.729.952</b>  |
| <b>Advanced payments made to third parties</b>                      |                            |                         |                                          |                     |                         |                                      |                                             |                                                    |                    |
| Balance as of January 1                                             | 6                          | -                       | 48.093                                   | -                   | -                       | -                                    | -                                           | -                                                  | 48.099             |
| Movement (+)                                                        | (7)                        | -                       | 22.262                                   | -                   | -                       | -                                    | -                                           | -                                                  | 22.255             |
| Movement (-)                                                        | 1                          | -                       | (50.005)                                 | -                   | -                       | -                                    | -                                           | -                                                  | (50.004)           |
| <b>Balance as of December 31</b>                                    | <b>-</b>                   | <b>-</b>                | <b>20.350</b>                            | <b>-</b>            | <b>-</b>                | <b>-</b>                             | <b>-</b>                                    | <b>-</b>                                           | <b>20.350</b>      |

- Amounts expressed in millions of Colombian pesos -



Property, plant and equipment show a variation with respect to 2016, mainly due to the construction of infrastructure in the different businesses of the company, of which, the most relevant corresponds to the construction of the Ituango Hydroelectric project, for \$ 1,955,599.

At the end of the period, impairment tests were made to the assets that are linked to a CGU and have intangible assets with indefinite useful lives recorded, which did not show impairment.

<sup>(1)</sup> Includes capitalization of loans for \$248,171 (2016: \$259,890), the effective weighted average rates used to determine the amount of borrowing costs were as follows: in pesos 8.40% and in dollars 4.01% (2016: 9.38% and 2.86%).

<sup>(2)</sup> Includes equipment and vehicles of the automotive fleet, medical and scientific equipment, property, plant and equipment in assembly, property, plant and equipment in transit, replacement assets, transportation equipment, traction and elevation, dining equipment, kitchen, pantry and hotel.

<sup>(3)</sup> Includes purchases, capitalizable disbursements that meet the recognition criteria, goods received from third parties and costs for dismantling and removal of elements of property, plant and equipment. At the end of 2017 and 2016 no subsidies were received from the Government.

The main projects in progress are the following:

| Project                          | 2017             | 2016             |
|----------------------------------|------------------|------------------|
| Ituango <sup>(1)</sup>           | 7.616.015        | 5.660.416        |
| Other projects                   | 578.914          | 882.140          |
| STN Bello-Guayabal-Ancón Line    | 148.209          | 76.979           |
| San Fernando Plant Modernization | 43.015           | 1.623            |
| Primary Conexión San Nicolás D.  | 33.045           | 13.812           |
| Sierra-Cocorna -STR line         | 30.824           | 12.690           |
| <b>Total</b>                     | <b>8.450.022</b> | <b>6.647.660</b> |

*Amounts expressed in millions of Colombian pesos*

<sup>1</sup>The Ituango hydroelectric project presents a physical advance of 80.5% (2016: 65%).

For 2018, it is estimated to continue with the execution of civil works in the dam and the power plant, supply and assembly of electromechanical equipment and social and environmental actions to obtain a physical advance of 93.2% at December 2018 and comply with the milestone of "Start of commercial operation of unit 4 by the end of 2018."

As of December 31, 2017, there are restrictions on the realization of EPM properties, plant and equipment, associated with some automobile fleet equipment for a carrying amount of \$ 6. These restrictions are for theft, personal injury and embargoes and have been affected as a guarantee for the fulfillment of obligations.

The most significant commitments of acquisition of properties, plant and equipment of the Group at the cut-off date increase to \$1,123,327 (2016: \$1,023,438). The Company obtained income from third parties' compensation for loss of property, plant and equipment for \$5,908 (2016: \$472,098) related to the loss of the Playas and Guatapé plants (See note 30. Other income).

The following is the historic cost of the properties, plant and equipment completely depreciated that still in operation as of December 31, 2017 and 2016:

| Group                                | 2017          | 2016          |
|--------------------------------------|---------------|---------------|
| Buildings                            | 1.033         | 221           |
| Plants, ducts and tunnels            | 17.852        | 14.091        |
| Networks, lines and cables           | 4.995         | 4.830         |
| Machinery and equipment              | 7.109         | 2.920         |
| Communication and Computer equipment | 30.640        | 1.443         |
| Other property, plant and equipment  | 5.820         | 921           |
| <b>Total</b>                         | <b>67.449</b> | <b>24.426</b> |

- Amounts expressed in millions of colombian pesos -

The most significant variation in communication and computer equipment is due to the replacement plan that will be carried out in 2018.

## Nota 5. Investment Property

The fair value of the investment properties is based on an annual appraisal made by experts that have renown professional capacity and a recent experience on the category of the real estate investments object of the valuation; this value has been determined by Corporación Avalúos, Lonja Inmobiliaria and Activos e Inventarios Limitada, this activity is carried out at least once a year. To determine the fair value of the investment properties it is used the comparative or market method, which consists in deducing the price by comparison of transactions, supply and demand and appraisals of similar or comparable properties, prior adjustments of time, conformation, and location; and the residual method that is applied only to the buildings and is based on the determination of the updated cost of the construction, less the depreciation for age and conservation condition; the income method, which is used to determine the possible value of a good according to its ability to generate income taking into account the likely monthly value of the property that renters would be willing to pay in the rental market. See note 41 Measurement of fair value on a recurring and non-recurring basis.

| Investment properties                                         | 2017           | 2016           |
|---------------------------------------------------------------|----------------|----------------|
| <b>Balance as of January 1</b>                                | <b>116.628</b> | <b>157.213</b> |
| Net profit (loss) for adjustment of fair value <sup>(1)</sup> | 9.528          | (12.484)       |
| Disposals (-)                                                 | (152)          | (1.105)        |
| Transfers <sup>(2)</sup> (-/+)                                | (9.181)        | (26.996)       |
| <b>Total</b>                                                  | <b>116.823</b> | <b>116.628</b> |

- Amounts expressed in millions of colombian pesos -

<sup>1</sup> See detail in note 19. Other accumulated comprehensive income, note 30. Other income and note 33. Other expenses.

<sup>2</sup> Includes transfers to property, plant and equipment from investment properties.

As of December 31, 2017, rental income from investment properties for the period amounted to \$ 669 (2016: \$ 610) and the direct expenses of the period related to investment properties amounted to \$ 68 (2016: \$ 66).

As of December 31, 2017 and 2016 there were no contractual obligations to acquire, build or develop investment properties or for repairs, maintenance or improvements to them.

As of December 31, 2017, there are no contractual restrictions on investment property (2016: \$ 1,970).

## Nota 6. Other intangible assets

The following is the detail of the carrying amount of intangible assets:

| <b>Intangibles</b>                      | <b>2017</b>    | <b>2016</b>    |
|-----------------------------------------|----------------|----------------|
| Goodwill                                | 260.950        | 260.950        |
| <b>Total goodwill</b>                   | <b>260.950</b> | <b>260.950</b> |
| Other intangibles                       | 701.918        | 547.770        |
| Accumulated depreciation and impairment | (299.938)      | (270.660)      |
| <b>Total other intangibles</b>          | <b>401.980</b> | <b>277.110</b> |
| <b>Total</b>                            | <b>662.930</b> | <b>538.060</b> |

*Amounts expressed in millions of Colombian pesos-*

The cost movement, amortization and impairment of intangible assets is detailed below:

| 2017                                                      | Goodwill | Concessions and similar rights | Capitalized development expenses | Software and information technology applications | Licenses | Rights  | Other intangible assets <sup>(1)</sup> | Total     |
|-----------------------------------------------------------|----------|--------------------------------|----------------------------------|--------------------------------------------------|----------|---------|----------------------------------------|-----------|
| Balance as of January 1                                   | 260.950  | 283.158                        | 31.462                           | 105.838                                          | 57.157   | 47.431  | 22.724                                 | 808.720   |
| Additions <sup>2</sup>                                    | -        | 1.246                          | 25.133                           | 16.086                                           | 5.117    | -       | 1.109                                  | 48.691    |
| Transfers (-/+)                                           | -        | 17.813                         | -                                | 2.819                                            | 227      | -       | 101.348                                | 122.207   |
| Disposals (-)                                             | -        | -                              | -                                | (9.092)                                          | (9.583)  | -       | (424)                                  | (19.099)  |
| Other changes                                             | -        | -                              | 81                               | (81)                                             | -        | 2.572   | (223)                                  | 2.349     |
| Balance as of December 31                                 | 260.950  | 302.217                        | 56.676                           | 115.570                                          | 52.918   | 50.003  | 124.534                                | 962.868   |
| Accumulated amortization and impairment as of January 1   | -        | (187.479)                      | -                                | (54.009)                                         | (26.098) | (804)   | (2.270)                                | (270.660) |
| Amortization of the period <sup>(3)</sup>                 | -        | (23.754)                       | -                                | (15.629)                                         | (6.714)  | (307)   | (1.211)                                | (47.615)  |
| Disposals (-)                                             | -        | -                              | -                                | 8.531                                            | 8.967    | -       | -                                      | 17.498    |
| Other Changes                                             | -        | -                              | -                                | (10)                                             | (43)     | -       | 892                                    | 839       |
| Accumulated amortization and impairment as of December 31 | -        | (211.233)                      | -                                | (61.117)                                         | (23.888) | (1.111) | (2.589)                                | (299.938) |
| Net Intangible Assets as of December 31                   | 260.950  | 90.984                         | 56.676                           | 54.453                                           | 29.030   | 48.892  | 121.945                                | 662.930   |

- Amounts expressed in millions of colombian pesos -

| 2016                                                      | Goodwill | Concessions and similar rights | Capitalized development expenses | Software and information technology applications | Licenses | Rights  | Other intangible assets <sup>(1)</sup> | Total     |
|-----------------------------------------------------------|----------|--------------------------------|----------------------------------|--------------------------------------------------|----------|---------|----------------------------------------|-----------|
| Balance as of January 1                                   | 260.950  | 237.897                        | 20.600                           | 75.568                                           | 39.119   | 54.244  | 14.647                                 | 703.025   |
| Additions <sup>(2)</sup>                                  | -        | 121                            | 10.861                           | 17.645                                           | 18.957   | -       | 15                                     | 47.599    |
| Transfers (-/+)                                           | -        | 41.380                         | -                                | 12.840                                           | 49       | -       | 4.108                                  | 58.377    |
| Disposals (-)                                             | -        | -                              | -                                | (214)                                            | (968)    | -       | -                                      | (1.182)   |
| Other Changes                                             | -        | 3.760                          | 1                                | (1)                                              | -        | (6.813) | 3.954                                  | 901       |
| Balance as of December 31                                 | 260.950  | 283.158                        | 31.462                           | 105.838                                          | 57.157   | 47.431  | 22.724                                 | 808.720   |
| Accumulated amortization and impairment as of January 1   | -        | (129.416)                      | -                                | (43.605)                                         | (21.360) | (496)   | (2.431)                                | (197.308) |
| Amortization of the period <sup>(3)</sup>                 | -        | (18.923)                       | -                                | (10.555)                                         | (5.652)  | (308)   | (1.211)                                | (36.649)  |
| Impairment of the period (See notes 7 and 31)             | -        | (63.075)                       | -                                | (207)                                            | (32)     | -       | (776)                                  | (64.090)  |
| Reversal of loss of impairment (-) (See notes 7 and 30)   | -        | 24.189                         | -                                | 143                                              | 75       | -       | 1.257                                  | 25.664    |
| Disposals (-)                                             | -        | -                              | -                                | 200                                              | 895      | -       | -                                      | 1.095     |
| Other Changes                                             | -        | (254)                          | -                                | 15                                               | (24)     | -       | 891                                    | 628       |
| Accumulated amortization and impairment as of December 31 | -        | (187.479)                      | -                                | (54.009)                                         | (26.098) | (804)   | (2.270)                                | (270.660) |
| Net Intangible Assets as of December 31                   | 260.950  | 95.679                         | 31.462                           | 51.829                                           | 31.059   | 46.627  | 20.454                                 | 538.060   |

- Amounts expressed in millions of colombian pesos -

- (1) Includes easements, intangibles related to customers and other intangibles corresponding to premiums at Gas Service Stations. In easements, there were presented transfers to the operation of the projects of Nueva Esperanza, Línea Caucasia and Ceja Sonsón for \$ 99,588.
- (2) Includes purchases, capitalizable disbursements that meet the recognition criteria and concessions. In 2017, the purchases associated with capitalized disbursements for development disbursements were allocated to IT projects: Commercial information system and productivity in the field. At the end of 2017 and 2016 no subsidies were received from the Government.
- (3) See note 31 Costs for borrowing of services and note 32 Administration expenses.

At the end of the periods an impairment test was made to the assets for those intangibles recorded with indefinite useful life. The detail of the impairment recognized in the Comprehensive income statement is in note 7. Impairment of assets.

The useful lives of the intangible assets are:

|                                                    |                                      |               |
|----------------------------------------------------|--------------------------------------|---------------|
| Concessions and similar rights                     | As per the contract's effective term |               |
| Easements                                          | Indefinite                           |               |
| Capitalized disbursements for development          | Indefinite                           |               |
| Software y and information technology applications | Finite                               | 3 to 5 years  |
| Licenses                                           | Finite                               | 3 to 5 years  |
| Rights                                             | As per the contract's effective term |               |
| Other intangible assets                            | Finite                               | 7 to 15 years |

The amortization of intangibles is recognized as costs and expenses in the statement of comprehensive income, profit and loss for the period, in the lines of service delivery costs and administration expenses.

As of December 31, 2017 and 2016 no restrictions were identified on the realization of intangible assets nor contractual commitments for the acquisition of such assets were identified.

The carrying amount at the cut-off date and the remaining amortization period for the significant assets is:

| Significant Intangible Assets | Useful life | 2017    | 2016    |
|-------------------------------|-------------|---------|---------|
| Goodwill Ituango              | Undefined   | 177.667 | 177.667 |
| Goodwill Espiritu Santo       | Undefined   | 82.980  | 82.980  |
| Easement line 53              | Undefined   | 61.530  | -       |
| Easement line 52              | Undefined   | 25.606  | -       |

- Amounts expressed in millions of colombian pesos -

The following intangible assets have an indefinite useful life: goodwill and easements, the latter are agreed in perpetuity. By definition an easement is the actual right, perpetual or temporary on someone else's real estate, by virtue of which the property can be used, or exercise certain disposal rights, or prevent the owner from exercising some of his property rights (Art. 2970 of the Civil Code). In EPM the easements are not treated individually, since they are created for public utility projects, where the general interest prevails over the private one, considering that the objective is to improve the quality of life of the community; the above-mentioned projects do not have a defined term and thus they are created perpetually supported both in their

use and in the civil code in its articles 2970 and 3009. As of December 31, 2017 and 2016 they have a carrying amount for \$382,507 y \$279,468 respectively.

| Intangible assets with indefinite useful life              | 2017           | 2016           |
|------------------------------------------------------------|----------------|----------------|
| <b>Goodwill</b>                                            |                |                |
| Proyecto Central Generación Ituango                        | 177.667        | 177.667        |
| Espiritu Santo                                             | 82.980         | 82.980         |
| Surtigás Necoclí                                           | 303            | 303            |
| <b>Subtotal goodwill</b>                                   | <b>260.950</b> | <b>260.950</b> |
| <b>Other intangible assets</b>                             |                |                |
| Easements                                                  | 121.557        | 18.518         |
| <b>Subtotal other intangible assets</b>                    | <b>121.557</b> | <b>18.518</b>  |
| <b>Total intangible assets with indefinite useful life</b> | <b>382.507</b> | <b>279.468</b> |

*Amounts expressed in millions of Colombian pesos*

## Nota 7. Impairment of assets

### 7.1 Impairment of investments in subsidiaries, associates and joint ventures

As of the date of presentation of the financial statements no losses for impairment were recognized in the Statement of Comprehensive income, related to investments in subsidiaries, associates and joint ventures.

In the following table is presented the cumulative effect of recognized impairment losses:

| Investment                         | Carrying amount |               |
|------------------------------------|-----------------|---------------|
|                                    | 2017            | 2016          |
| <b>Subsidiary</b>                  |                 |               |
| Hidroecológica del Teribe S.A. HET | 86.963          | 86.963        |
| Aguas de Malambo S.A. E.S.P.       | 1.641           | 1.641         |
| <b>Total subsidiaries</b>          | <b>88.604</b>   | <b>88.604</b> |

*Amounts expressed in millions of Colombian pesos -*

### 7.2 Impairment of Cash Generating Units

As of the date of presentation of the financial statements, no losses or reversal of impairment were recognized in the statement of comprehensive income, related to the Cash Generating Units.

The carrying amount of goodwill and intangible assets with indefinite useful lives associated with each CGU are detailed below:

| Cash Generating Unit           | Carrying amount |                |
|--------------------------------|-----------------|----------------|
|                                | 2017            | 2016           |
| <b>Generation segment</b>      |                 |                |
| Goodwill                       | 260.647         | 260.647        |
| Easements                      | 444             | 444            |
| <b>CGU - Generation-</b>       | <b>261.091</b>  | <b>261.091</b> |
| <b>Transmission segment</b>    |                 |                |
| Easements                      | 91.861          | 2.402          |
| <b>CGU - Transmission-</b>     | <b>91.861</b>   | <b>2.402</b>   |
| <b>Distribution segment</b>    |                 |                |
| Easements                      | 10.985          | 9.220          |
| <b>CGU - Distribution-</b>     | <b>10.985</b>   | <b>9.220</b>   |
| <b>Gas segment</b>             |                 |                |
| Goodwill                       | 303             | 303            |
| Easements                      | 3.512           | 3.481          |
| <b>CGU - Gas-</b>              | <b>3.815</b>    | <b>3.784</b>   |
| <b>Sanitation segment</b>      |                 |                |
| Easements                      | 1.350           | 454            |
| <b>CGU - Sanitation-</b>       | <b>1.350</b>    | <b>454</b>     |
| <b>Water provision segment</b> |                 |                |
| Easements                      | 2.861           | 2.517          |
| <b>CGU - Water provision -</b> | <b>2.861</b>    | <b>2.517</b>   |

*Amounts expressed in millions of Colombian pesos -*

Goodwill is assigned mainly to the segment / CGU Generation which presented a balance at December 31, 2017 for \$ 260,647 generated as a result of the liquidation of the subsidiary EPM Ituango S.A E.S.P. and Espíritu Santo whose assets were transferred to EPM, additionally, a goodwill in the UGE Gas product of the business combination with Surtidora de Gas del Caribe S.A E.S.P. in the municipality of Necoclí for \$ 303.

The intangible easement with indefinite useful life is assigned to the CGUs: Generation, Transmission, Distribution, Gas, Water Provision and Sanitation, which present a balance in 2017 of \$ 111,013 and in 2016 of \$ 18,518.

At the end of the 2017 period, impairment tests were made to the CGUs that had associated intangible assets with an indefinite useful life, but no deterioration in the value associated with them was evidenced.

At the end of the 2016 period, it was evidenced the deterioration in the value of the water segment that presented deterioration in the Sanitation CGU and a reversal of the impairment in the Water provision CGU, detailed below:

- UGE Sanitation

Impairment of its assets was calculated based on IAS 36 Impairment of assets, seeking to ensure that the value of the assets that are accounted with a cut-off date of December 31, 2016 reflect their recoverable value through their use or their sale.

Value in use: it was based on the most recent financial projections, estimating the cash flows that the Group expects to obtain from its assets for a period of 20 years<sup>2</sup>.

The discount rate that was used for the valuation reflects the capital structure of the company, which considers the performance that the owner would demand for this type of investment, taking into account: the risk-free rate, the corresponding economic sector, the market, the country where the investment is and the indebtedness.

Based on the foregoing criteria, the impairment value of the assets increases to \$ 628,519 as of December 31, 2016 and results from:

Value in use: \$ 514,857.

Carrying amount of the CGU: \$ 1,143,376.

The key assumptions used by the company in determining the value in use of the Sanitation CGU are the following:

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<sup>2</sup> The company uses 20 years for the financial projections taking into account that financial theory indicates that when cash flows are being projected to make valuations with them, they should be projected as many years as necessary until the cash flows are stabilized. It is understood that a cash flow was stabilized in the year in which there are no presented unusual growth of income, costs and expenses, and that are no being made significant business investments. In general, public services businesses are intensive in capital investments and their recovery period is greater to 20 years, whereby the financial evaluation of investments in the public services sector must consider a longer period of 5 years, as established in IAS 36, where there can be observed the real income of the project and therefore the recovery of the investment. In the case of the CGUs for water and sanitation provision, the important investments are planned up to 15 or 20 years later since the cash flow of companies in this sector is slow in recovering the investments.



## Sanitation

| Item                 | Key assumption                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Business plan update | The plan of the CGU was modified with the following facts; (i) rate change with Resolutions CRA 688 of 2014 and CRA 735 of 2015 issued by the Commission for the Regulation of Drinking Water and Basic Sanitation -CRA, which demand the compliance of quality and coverage indicators and, therefore, the review of investments and operations, (ii) review on the demand projections and (iii) changes in the remuneration and entry into operation of the Aguas Claras wastewater treatment plant                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Income               | In the income of the CGU, the adjustments for the implementation of the new tariff framework are considered, which implies a decrease in the invoice of the Sanitation CGU of -8%, because the most significant investments were recognized in the previous tariff framework and now, most of them reflect investments for sustainability, in addition, a revision of the projection of demand was made, which showed a fall of approximately six million cubic meters for 2016, as a result of the penalties for high consumption established by the government, to mitigate the effects of the El Niño phenomenon, this user saving behavior is maintained over time.<br>The invoice is also impacted by the inflation indexation and the vegetative growth of the vertimientos.<br>In August of 2017, the variable wastewater charge increases due to the entered into operation of the Aguas Claras wastewater treatment plant. |
| Costs and expenses   | Costs and expenses reflect as of August 2017, the recognition to the subsidiary Aguas Nacionales for the operation and remuneration of the investment of the Aguas Claras plant, the other costs and expenses behave in a manner consistent with the operation of the business. There was a displacement of the entry into operation of the Wastewater Treatment Plant Aguas Claras that went from April to August 2017. With respect to the previous business plan, there was a decrease in the payments that should be recognized to the subsidiary. Aguas Nacionales for the remuneration of the Aguas Claras WWTP for the review and the decrease in the profitability required by the regulation.                                                                                                                                                                                                                              |
| Investment           | The investments respond to the needs of the market, the completion of the Aguas Claras Plant and compliance with the new regulation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

- UGE Water Provision

The impairment of its assets was calculated based on IAS 36, seeking to ensure that the value of the assets that are accounted with a cut-off date of December 31, 2016 reflect their recoverable value through their use or sale.

Value in use: it was based on the most recent financial projections, estimating the cash flows that the Group expects to obtain from its assets for a period of 20 years<sup>1</sup>.

The discount rate that was used for the valuation reflects the capital structure of the company, which considers the performance that the owner would demand for this type of investment, taking into account: the risk-free rate, the corresponding economic sector, the market, the country where the investment is and indebtedness.

In the income of the CGU the adjustments for the implementation of the new tariff framework are considered, which implies an increase in the billing of the CGU Provision of 46%.

Based on the above criteria, a reversal of the impairment in the CGU Water Provision was identified for a value of \$ 711,214. The carrying amount of each asset was increased considering the lower between the value in use of \$ 1,991,982 and the carrying amount that was determined (net depreciation) for a value of \$ 1,280,768 as if no impairment loss had been recognized in prior periods. This increase was recognized in the income statement immediately.

The key assumptions used by the company in determining the value in use of the CGU Water Provision are the following:

| Water provision      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Item                 | Key assumption                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Business plan update | The plan of the CGU had changes as a result of the tariff change with the Resolutions CRA 688 of 2014 and CRA 735 of 2015 issued by the Commission for the Regulation of Drinking Water and Basic Sanitation -CRA, which force the fulfillment of indicators of quality and coverage and therefore review of investments and operations and by review in the demand projections.                                                                                                                                                                                                                                                                                                                                                                                                              |
| Income               | In the income of the CGU the adjustments for the implementation of the new tariff framework are considered, which implies an increase in the invoice of the CGU Provision of 46%, given that a higher level of investments is recognized as a result of the requirements as to quality and coverage, increment that will be applied in a staggered manner until the year 2022. A revision of the projection of demand was made, which showed a fall of approximately six million cubic meters for 2016, as a result of the penalties for high consumption established by the government, to mitigate the effects of the El Niño phenomenon, this user saving behavior is maintained over time. The invoice is also impacted by inflation indexation and the vegetative growth of consumption. |
| Costs and expenses   | The costs and expenses respond to the operational needs of the business, taking into account also the disbursements of the prepaid water projects, massive change of meters and the connection of users of the San Nicolás Valley                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Investment           | The investments respond to market needs and compliance with the new regulation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

The value in use and the carrying amount of the CGU at the end of 2017 that present indefinite useful life is detailed below:

| CGU              | Value in Use      | Carrying amount   |
|------------------|-------------------|-------------------|
| Generation       | 28.718.825        | 15.265.764        |
| Distribution     | 5.916.277         | 3.725.177         |
| Sanitation       | 2.660.711         | 709.960           |
| Water provision  | 2.470.547         | 2.108.760         |
| Gas              | 1.016.449         | 809.805           |
| Transmission     | 850.649           | 826.618           |
| <b>Total CGU</b> | <b>41.633.458</b> | <b>23.446.084</b> |

Amounts expressed in millions of Colombian pesos -

## Nota 8. Investments in subsidiaries

The detail of the subsidiaries of the Group at the date of the reporting period is the following:

| Name of subsidiary                                                    | Location (Country) | Main Activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Percentage of property and voting rights |         | Creation date |
|-----------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|---------|---------------|
|                                                                       |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2017                                     | 2016    |               |
| Empresa de energía del Quindío S.A. E.S.P. EDEQ                       | Colombia           | Provides public utilities for electric power purchase, sale and distribution of electricity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 19,26%                                   | 19,26%  | 22/12/1988    |
| Central Hidroeléctrica de Caldas S.A. E.S.P. CHEC                     | Colombia           | It provides public energy services, operating power generation plants, transmission and sub transmission lines and distribution networks, as well as the commercialization, import distribution and sale of electricity.                                                                                                                                                                                                                                                                                                                                                           | 24,44%                                   | 24,44%  | 9/09/1950     |
| Electrificadora de Santander S.A. E.S.P. ESSA                         | Colombia           | Provides public services of electrical energy purchase sale commercialization and distribution of electric energy.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0,28%                                    | 0,28%   | 16/09/1950    |
| Centrales Eléctricas del Norte de Santander S.A. E.S.P. CENS          | Colombia           | Provides public services for electricity, purchase, export, import, distribution and sale of electric power construction and operation of generating plants, transmission line substations and distribution networks.                                                                                                                                                                                                                                                                                                                                                              | 12,54%                                   | 12,54%  | 16/10/1952    |
| Hidroecológica del Teribe S.A. HET                                    | Panamá             | It finances the construction of the Bonyic hydroelectric project required to meet the growth of the energy demand of the isthmus of Panama.                                                                                                                                                                                                                                                                                                                                                                                                                                        | 99,19%                                   | 99,19%  | 11/11/1994    |
| Gestión de Empresas Eléctricas S.A. GESA                              | Guatemala          | Provides advice and consulting to distribution companies and electricity transmission.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 99,98%                                   | 99,98%  | 17/12/2004    |
| Aguas Nacionales EPM S.A. E.S.P. <sup>1</sup>                         | Colombia           | Provides public utilities for water, sewage and sanitation, treatment and waste management complementary activities and engineering services specific to these public services.                                                                                                                                                                                                                                                                                                                                                                                                    | 99,97%                                   | 99,97%  | 29/11/2002    |
| Aguas Regionales EPM S.A. E.S.P.                                      | Colombia           | Ensure the provision of public residential water supply and sanitation services and compensate for the lag of the infrastructure of these services in the partner municipalities.                                                                                                                                                                                                                                                                                                                                                                                                  | 67,25%                                   | 67,25%  | 18/01/2006    |
| Empresas Públicas del Oriente S.A. E.S.P. En Liquidación <sup>6</sup> | Colombia           | Ensure the provision of public residential water supply and sanitation services and compensate for the lag of the infrastructure of these services in the partner municipalities Envigado, Rionegro y El Retiro en el denominado Valle de San Nicolás.                                                                                                                                                                                                                                                                                                                             | 0,00%                                    | 0,00%   | 12/11/2009    |
| Empresa de Aguas del Oriente Antioqueño S.A. E.S.P.                   | Colombia           | Provides public utilities of water and sewerage, as well as other complementary activities specific to each of these public services.                                                                                                                                                                                                                                                                                                                                                                                                                                              | 56,00%                                   | 56,00%  | 22/11/1999    |
| Aguas de Malambo S.A. E.S.P. <sup>2</sup>                             | Colombia           | Dedicated to guarantee the provision of public utilities for sewage and sanitation in the jurisdiction of the Municipality of Malambo Department of the Atlantic.                                                                                                                                                                                                                                                                                                                                                                                                                  | 96,86%                                   | 94,98%  | 20/11/2010    |
| Empresas Públicas de Rionegro S.A. E.S.P. - EP RIO <sup>3</sup>       | Colombia           | Rendering of domiciliary public utilities, among them water supply and sewage, as well as the complementary and related activities thereto; specifically the administration, operation, maintenance and investments of the water supply and sewage systems of the Municipality of Rionegro, the execution of programs and projects on the environment and the renewable and non-renewable natural resources; promote their sustainable development. Additionally, the company will provide the maintenance service of the public lighting network of the Municipality of Rionegro. | 100,00%                                  | 0,00%   | 9/12/1996     |
| Empresas Varias de Medellín S.A. E.S.P.                               | Colombia           | Subsidiary dedicated to the provision of the public toilet service within the framework of the integral management of solid waste.                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 64,98%                                   | 64,98%  | 11/01/1964    |
| EPM Inversiones S.A. <sup>7</sup>                                     | Colombia           | Dedicated to the investment of capital in national or foreign companies organized as utilities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 99,99%                                   | 99,99%  | 25/08/2003    |
| Maxseguros EPM Ltd                                                    | Bermuda            | Negotiation, contracting and management of reinsurance for policies that protect the patrimony.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 100,00%                                  | 100,00% | 23/04/2008    |
| Panamá Distribution Group S.A. PDG                                    | Panamá             | Capital investment in companies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 100,00%                                  | 100,00% | 30/10/1998    |
| Distribución Eléctrica Centroamericana DOS S.A. DECA II               | Guatemala          | It makes capital investments in companies engaged in the distribution and commercialization of electric power and in providing telecommunications services.                                                                                                                                                                                                                                                                                                                                                                                                                        | 99,99%                                   | 99,99%  | 12/03/1999    |
| EPM Capital México S.A. de CV <sup>4</sup>                            | México             | It develops infrastructure projects related to energy, lighting, gas, telecommunications, sanitation, potable water treatment plants, sewage treatment, wastewater treatment, buildings, as well as its operation, studies and services.                                                                                                                                                                                                                                                                                                                                           | 39,36%                                   | 38,53%  | 4/05/2012     |
| EPM Chile S.A. <sup>5</sup>                                           | Chile              | It develops energy projects, lighting, gas, telecommunications, sanitation, sewage treatment plants and sewage treatment, as well as providing such services and participating in all types of public and private tenders and auctions.                                                                                                                                                                                                                                                                                                                                            | 99,99%                                   | 99,99%  | 22/02/2013    |

(1) In November 2017, EPM capitalized Aguas Nacionales EPM S.A. E.S.P. for \$ 259,999.

(2) During the reporting periods, EPM capitalized Aguas de Malambo S.A. E.S.P., as follows: November 2017 for \$ 12,499; March and December 2016 for \$ 9,000 and \$ 4,999, respectively

(3) Subsidiary acquired by EPM on November 1, 2017. Subsequently, it was capitalized in November 2017 for \$ 14,235.

(4) In August 2017 and October 2016, EPM capitalized EPM Chile S.A for \$ 10,703 and for \$ 87,744, respectively.

(5) In June 2017, EPM capitalized EPM Capital México S.A. of C.V. in \$4,055

(6) In June 2016, EPM Inversiones S.A. restituted contributions to EPM for \$ 165,000.

(7) In the subsidiaries in which there is less than 50% direct participation, the control is obtained through the indirect participation of the other EPM Group companies.

The value of investments in subsidiaries at the cut-off date was:

| Subsidiary                                                   | 2017                    |                      |                 |                  |                  | 2016                    |                      |                 |                 |                  |
|--------------------------------------------------------------|-------------------------|----------------------|-----------------|------------------|------------------|-------------------------|----------------------|-----------------|-----------------|------------------|
|                                                              | Value of the investment |                      |                 |                  | Total            | Value of the investment |                      |                 |                 | Total            |
|                                                              | Cost                    | Participation method | Impairment      | Dividends        |                  | Cost                    | Participation method | Impairment      | Dividends       |                  |
| Empresa de Energía del Quindío S.A. E.S.P. EDEQ              | 28.877                  | 10.524               | -               | (6.169)          | 33.232           | 28.878                  | 8.095                | -               | (2.615)         | 34.358           |
| Central Hidroeléctrica de Caldas S.A. E.S.P. CHEC            | 140.663                 | 16.952               | -               | (12.842)         | 144.773          | 140.663                 | 2.609                | -               | (5.128)         | 138.144          |
| Electrificadora de Santander S.A. E.S.P. ESSA                | 2.513                   | (166)                | -               | (216)            | 2.131            | 2.514                   | (235)                | -               | (196)           | 2.082            |
| Centrales Eléctricas del Norte de Santander S.A. E.S.P. CENS | 57.051                  | (22.026)             | -               | (3.880)          | 31.145           | 57.052                  | (21.672)             | -               | (3.359)         | 32.021           |
| Hidroecológica del Teribe S.A. HET                           | 346.066                 | (185.980)            | (86.962)        | -                | 73.124           | 346.067                 | (259.104)            | (86.963)        | -               | 0                |
| Gestión de Empresas Eléctricas S.A. GESA                     | 25.781                  | 14.834               | -               | (5.040)          | 35.575           | 25.782                  | 15.803               | -               | (5.717)         | 35.868           |
| Aguas Nacionales EPM S.A. E.S.P.                             | 1.552.115               | (23.994)             | -               | -                | 1.528.121        | 1.292.115               | (16.855)             | -               | (2.819)         | 1.272.441        |
| Aguas Regionales EPM S.A. E.S.P.                             | 47.227                  | 9.854                | -               | -                | 57.081           | 47.228                  | 4.177                | -               | -               | 51.405           |
| Empresa de Aguas del Oriente Antioqueño S.A. E.S.P.          | 1.563                   | 700                  | -               | -                | 2.263            | 1.564                   | 586                  | -               | -               | 2.150            |
| Aguas de Malambo S.A. E.S.P.                                 | 50.717                  | (25.417)             | (1.641)         | -                | 23.659           | 38.218                  | (23.568)             | (1.641)         | -               | 13.009           |
| Empresas Públicas de Rionegro S.A. E.S.P. - EP RIO           | 14.235                  | -                    | -               | -                | 14.235           | -                       | -                    | -               | -               | -                |
| Empresas Varias de Medellín S.A. E.S.P.                      | 32.966                  | 83.692               | -               | -                | 116.658          | 32.967                  | 70.518               | -               | -               | 103.485          |
| EPM Inversiones S.A.                                         | 1.561.331               | (114.437)            | -               | (136.228)        | 1.310.666        | 1.561.331               | (267.197)            | -               | -               | 1.294.134        |
| Maxseguros EPM Ltd                                           | 63.783                  | 73.063               | -               | -                | 136.846          | 63.784                  | 63.845               | -               | -               | 127.629          |
| Panamá Distribution Group S.A. PDG                           | 238.116                 | 236.985              | -               | (28.318)         | 446.783          | 238.117                 | 222.398              | -               | -               | 460.515          |
| Distribución Eléctrica Centroamericana DOS SA DECA II        | 1.009.257               | 882.393              | -               | (130.710)        | 1.760.940        | 1.009.257               | 727.153              | -               | (71.699)        | 1.664.712        |
| EPM Capital México S.A. de CV                                | 102.774                 | (43.704)             | -               | -                | 59.070           | 98.719                  | (54.725)             | -               | -               | 43.994           |
| Patrimonio Autónomo Financiación Social                      | 84.414                  | 43.876               | -               | -                | 128.290          | 84.414                  | 36.761               | -               | -               | 121.175          |
| EPM Chile S.A.                                               | 1.042.481               | (335.619)            | -               | -                | 706.862          | 1.031.779               | (385.798)            | -               | -               | 645.981          |
| <b>Total</b>                                                 | <b>6.401.930</b>        | <b>621.529</b>       | <b>(88.603)</b> | <b>(323.402)</b> | <b>6.611.454</b> | <b>6.100.449</b>        | <b>122.793</b>       | <b>(88.604)</b> | <b>(91.533)</b> | <b>6.043.104</b> |

Amounts expressed in millions of Colombian pesos -

The detail of the participation method recognized in the result of the period and in the other integral result of the period is as follows:

| Subsidiary                                                   | 2017                               |                            |                | 2016                               |                            |               |
|--------------------------------------------------------------|------------------------------------|----------------------------|----------------|------------------------------------|----------------------------|---------------|
|                                                              | Participation method of the period |                            | Total          | Participation method of the period |                            | Total         |
|                                                              | Profit or loss of the period       | Other comprehensive income |                | Profit or loss of the period       | Other comprehensive income |               |
| Empresa de Energía del Quindío S.A. E.S.P. EDEQ              | 4.721                              | (115)                      | 4.606          | 6.855                              | (318)                      | 6.537         |
| Central Hidroeléctrica de Caldas S.A. E.S.P. CHEC            | 19.388                             | (150)                      | 19.238         | 17.251                             | (471)                      | 16.780        |
| Electrificadora de Santander S.A. E.S.P. ESSA                | 264                                | (9)                        | 256            | 240                                | (27)                       | 213           |
| Centrales Eléctricas del Norte de Santander S.A. E.S.P. CENS | 2.214                              | (286)                      | 1.927          | 3.747                              | (2.960)                    | 787           |
| Hidroecológica del Teribe S.A. HET                           | (24.738)                           | (684)                      | (25.421)       | (49.931)                           | (7.429)                    | (57.361)      |
| Gestión de Empresas Eléctricas S.A. GESA                     | 4.677                              | -                          | 4.677          | 5.816                              | (3.306)                    | 2.509         |
| Aguas Nacionales EPM S.A. E.S.P.                             | (2.960)                            | -                          | (2.960)        | 10.601                             | -                          | 10.601        |
| Aguas Regionales EPM S.A. E.S.P.                             | 5.288                              | -                          | 5.288          | 1.722                              | -                          | 1.722         |
| Empresa de Aguas del Oriente Antioqueño S.A. E.S.P.          | 110                                | -                          | 110            | 153                                | (22)                       | 131           |
| Aguas de Malambo S.A. E.S.P.                                 | (1.857)                            | -                          | (1.857)        | (4.138)                            | -                          | (4.138)       |
| Empresas Públicas de Rionegro S.A. E.S.P. - EP RIO           | 853                                | -                          | 853            | -                                  | -                          | -             |
| Empresas Varias de Medellín S.A. E.S.P.                      | 10.876                             | (3.780)                    | 7.097          | 11.041                             | (2.424)                    | 8.617         |
| EPM Inversiones S.A.                                         | 145.355                            | 5.532                      | 150.886        | 151.311                            | (27.952)                   | 123.359       |
| Maxseguros EPM Ltd                                           | 9.747                              | (588)                      | 9.160          | 4.278                              | (6.341)                    | (2.064)       |
| Panamá Distribution Group S.A. PDG                           | 41.018                             | 16.237                     | 57.254         | 47.205                             | (32.463)                   | 14.742        |
| Distribución Eléctrica Centroamericana DOS SA DECA II        | 214.359                            | 59.831                     | 274.190        | 251.311                            | (128.991)                  | 122.320       |
| EPM Capital México S.A. de CV                                | (119)                              | 2.203                      | 2.084          | (33.834)                           | (13.778)                   | (47.612)      |
| Patrimonio Autónomo Financiación Social                      | 13.871                             | -                          | 13.871         | 18.213                             | -                          | 18.213        |
| EPM Chile S.A.                                               | 88.992                             | 46.302                     | 135.294        | (142.103)                          | (4.003)                    | (146.105)     |
| <b>Total</b>                                                 | <b>532.059</b>                     | <b>124.492</b>             | <b>656.552</b> | <b>299.737</b>                     | <b>(230.484)</b>           | <b>69.253</b> |

Amounts expressed in millions of Colombian pesos -

The financial information of the company's subsidiaries as of the date of the reporting period is as follows. All subsidiaries are accounted using the participation method in the separate financial statements:

| 2017                                                         | Current assets | Non-current assets | Current liabilities | Non-current liabilities | Ordinary income | Result for the period |         | Other comprehensive income | Total comprehensive income |
|--------------------------------------------------------------|----------------|--------------------|---------------------|-------------------------|-----------------|-----------------------|---------|----------------------------|----------------------------|
|                                                              |                |                    |                     |                         |                 | Continuing Operations |         |                            |                            |
| Empresa de energía del Quindío S.A. E.S.P. EDEQ              | 56.985         | 183.318            | 41.977              | 40.663                  | 218.959         | 24.821                | (596)   | 24.225                     |                            |
| Central Hidroeléctrica de Caldas S.A. E.S.P. CHEC            | 236.067        | 840.980            | 164.082             | 382.867                 | 653.603         | 79.862                | (614)   | 79.248                     |                            |
| Electrificadora de Santander S.A. E.S.P. ESSA                | 256.755        | 1.277.097          | 282.117             | 669.520                 | 1.034.530       | 95.754                | (3.151) | 92.602                     |                            |
| Centrales Eléctricas del Norte de Santander S.A. E.S.P. CENS | 185.507        | 839.297            | 222.315             | 594.082                 | 615.993         | 17.653                | (2.284) | 15.369                     |                            |
| Hidroecológica del Teribe S.A. HET                           | 15.849         | 451.270            | 57.306              | 332.877                 | 43.861          | (25.670)              | (379)   | (26.048)                   |                            |
| Gestión de Empresas Eléctricas S.A. GESA                     | 13.216         | -                  | 130                 | -                       | 5.885           | 4.678                 | -       | 4.678                      |                            |
| Aguas Nacionales EPM S.A. E.S.P.                             | 261.845        | 1.339.625          | 53.245              | 17.151                  | 2.460           | (491)                 | -       | (491)                      |                            |
| Aguas Regionales EPM S.A. E.S.P.                             | 24.982         | 104.149            | 23.670              | 21.165                  | 48.209          | 7.859                 | -       | 7.859                      |                            |
| Empresa de Aguas del Oriente Antioqueño S.A. E.S.P.          | 1.065          | 3.372              | 162                 | 240                     | 1.693           | 196                   | -       | 196                        |                            |
| Regional de Occidente S.A. E.S.P.                            | -              | -                  | -                   | -                       | -               | -                     | -       | -                          |                            |
| Aguas de Malambo S.A. E.S.P.                                 | 13.128         | 22.350             | 3.723               | 5.548                   | 11.195          | (1.717)               | -       | (1.717)                    |                            |
| Empresas Públicas de Rionegro S.A. E.S.P. - EP RIO           | 40.781         | 45.550             | 10.794              | 27.779                  | 5.015           | 853                   | -       | 853                        |                            |
| Empresas Varias de Medellín S.A. E.S.P.                      | 175.917        | 129.672            | 96.700              | 148.111                 | 212.061         | 16.750                | (5.816) | 10.934                     |                            |
| EPM Inversiones S.A.                                         | 1.732          | 1.245.110          | 875                 | 2.337                   | 4               | 145.084               | 5.391   | 150.476                    |                            |
| Maxseguros EPM Ltd                                           | 303.929        | -                  | 167.141             | -                       | 8.229           | 9.747                 | (588)   | 9.160                      |                            |
| Panamá Distribution Group S.A. PDG                           | 499.842        | 1.730.440          | 1.023.433           | 619.404                 | 1.875.827       | 82.425                | 15.987  | 98.412                     |                            |
| Distribución Eléctrica Centroamericana DOS S.A. DECA II      | 724.078        | 2.486.491          | 573.092             | 917.525                 | 2.723.268       | 268.086               | 60.014  | 328.100                    |                            |
| EPM Capital México S.A. de CV                                | 271.749        | 553.562            | 259.386             | 394.062                 | 174.794         | (890)                 | 1.935   | 1.045                      |                            |
| EPM Chile S.A.                                               | 274.832        | 3.796.453          | 224.742             | 3.051.762               | 535.137         | 90.110                | 45.096  | 135.206                    |                            |

- Cifras en millones de pesos colombianos -

| 2016                                                           | Current assets | Non-current assets | Current liabilities | Non-current liabilities | Ordinary income | Result for the period |          | Other comprehensive income | Total comprehensive income |
|----------------------------------------------------------------|----------------|--------------------|---------------------|-------------------------|-----------------|-----------------------|----------|----------------------------|----------------------------|
|                                                                |                |                    |                     |                         |                 | Continuing Operations |          |                            |                            |
| Empresa de energía del Quindío S.A. E.S.P. EDEQ                | 58.814         | 181.259            | 37.713              | 36.883                  | 230.078         | 35.550                | (1.651)  | 33.899                     |                            |
| Central Hidroeléctrica de Caldas S.A. E.S.P. CHEC              | 214.039        | 809.952            | 127.844             | 392.748                 | 673.293         | 70.585                | (1.926)  | 68.659                     |                            |
| Electrificadora de Santander S.A. E.S.P. ESSA                  | 226.040        | 1.123.487          | 279.694             | 501.626                 | 1.053.030       | 87.327                | (9.876)  | 77.451                     |                            |
| Centrales Eléctricas del Norte de Santander S.A. E.S.P. CENS   | 164.812        | 715.492            | 182.738             | 473.573                 | 614.046         | 29.887                | (23.608) | 6.279                      |                            |
| Hidroecológica del Teribe S.A. HET                             | 24.431         | 466.699            | 38.342              | 349.803                 | 46.277          | (50.545)              | (7.374)  | (57.919)                   |                            |
| Gestión de Empresas Eléctricas S.A. GESA                       | 13.240         | -                  | 110                 | -                       | 6.089           | 5.817                 | (3.307)  | 2.510                      |                            |
| Aguas Nacionales EPM S.A. E.S.P.                               | 209.955        | 1.161.370          | 85.134              | 14.625                  | 759             | 10.992                | -        | 10.992                     |                            |
| Aguas Regionales EPM S.A. E.S.P.                               | 20.338         | 97.236             | 18.029              | 23.109                  | 42.047          | 2.561                 | -        | 2.561                      |                            |
| Empresas Públicas del Oriente S.A. E.S.P. En Liquidación (EPO) | -              | -                  | -                   | -                       | -               | -                     | -        | -                          |                            |
| Empresa de Aguas del Oriente Antioqueño S.A. E.S.P.            | 877            | 3.250              | 159                 | 129                     | 1.540           | 273                   | (39)     | 234                        |                            |
| Regional de Occidente S.A. E.S.P.                              | -              | -                  | -                   | -                       | -               | -                     | -        | -                          |                            |
| Aguas de Malambo S.A. E.S.P.                                   | 12.634         | 12.813             | 2.713               | 5.614                   | 7.935           | (2.660)               | -        | (2.660)                    |                            |
| Empresas Varias de Medellín S.A. E.S.P.                        | 160.705        | 127.129            | 47.798              | 199.306                 | 185.950         | 17.213                | (3.731)  | 13.482                     |                            |
| EPM Inversiones S.A.                                           | 4.124          | 1.234.166          | 19                  | 1.602                   | 5               | 151.418               | (20.789) | 130.629                    |                            |
| Maxseguros EPM Ltd                                             | 208.696        | -                  | 10.695              | 70.372                  | 9.498           | 4.278                 | (6.341)  | (2.063)                    |                            |
| Panamá Distribution Group S.A. PDG                             | 28.648         | 309.741            | 12                  | -                       | -               | 46.763                | (34.370) | 12.393                     |                            |
| Distribución Eléctrica Centroamericana DOS S.A. DECA II        | 10.017         | 1.307.395          | 43                  | -                       | -               | 245.772               | 110.322  | 356.094                    |                            |
| EPM Capital México S.A. de CV                                  | 4.908          | 98.258             | 44                  | -                       | 128             | (70.411)              | (79.349) | (149.760)                  |                            |
| EPM Chile S.A.                                                 | 10.979         | 976.760            | 3.467               | 285.913                 | 2.169           | (146.982)             | 731.147  | 584.165                    |                            |

Amounts expressed in millions of Colombian pesos-

## 8.1 Changes in participation in subsidiaries that did not result in a loss of control

During 2017, there were presented changes in the participation of the following subsidiaries:

The percentage of participation in Aguas de Malambo S.A. E.S.P. increased to 96.86%, by EPM capitalization. This variation had an effect on the application of the equity method, reducing the investment by \$ 104, recognized directly in equity.

The percentage of participation in EPM Capital Mexico S.A. of C.V. increased to 39.36%, by capitalization of EPM. This variation had an effect on the application of the equity method, reducing the investment by \$ 1,515, recognized directly in equity.

During 2016, there were changes in the participation of the following subsidiaries:

The percentage of participation in Aguas de Malambo S.A. E.S.P. increased to 94.98%, by EPM capitalization. This variation had an effect on the application of the equity method, reducing the investment by \$ 370, recognized directly in equity.

The percentage of participation in Aguas Regionales EPM S.A. E.S.P. decreased to 67.25% due to the effect of the merger by absorption of Aguas de Urabá S.A. E.S.P. and Regional de Occidente S.A. E.S.P. This variation had an effect on the application of the equity method, reducing the investment by \$ 5,745, recognized directly in equity.

The percentage of participation in EPM Capital Mexico SA de CV decreased to 38.53%, due to the effect of the capitalization of EPM Latam S.A., which acquired a 6.10% for a total participation of 40.59% in the equity. This variation had an effect on the application of the equity method, reducing the investment by \$ 3, recognized directly in equity.

## Nota 9. Investments in associates

The detail of the associates of the EPM Group as of the date of the period reported is as follows:

| Name of the associate                    | Location (country) | Main activity                                                                                                                                                                                       | Percentage of property and voting rights |        | Creation date |
|------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|--------|---------------|
|                                          |                    |                                                                                                                                                                                                     | 2017                                     | 2016   |               |
| Hidroeléctrica Ituango S.A. E.S.P.       | Colombia           | Promotion, design, construction operation, maintenance and commercialization of energy at the national and international level of the Hituango Pescadero Hydroelectric Power Plant.                 | 46,33%                                   | 46,33% | 29/12/1997    |
| Hidroeléctrica del Río Aures S.A. E.S.P. | Colombia           | Generation and commercialization of electric power through a hydroelectric power station, located in the jurisdiction of the municipalities of Abejorral and Sonsón of the Department of Antioquia. | 42,04%                                   | 42,04% | 14/05/1997    |
| UNE EPM Telecomunicaciones S.A.          | Colombia           | Provision of telecommunications and information technologies services and communications information services and complementary activities.                                                         | 50,00%                                   | 50,00% | 29/06/2006    |
| Inversiones Telco S.A.S.                 | Colombia           | Invest in companies whose social objects are based on the provision of business process outsourcing (BPO) services for companies, especially but not limited to telecommunications companies.       | 50,00%                                   | 50,00% | 5/11/2013     |

The value of the investments in associates to the cut-off date was:

|                                          |                  |                  |
|------------------------------------------|------------------|------------------|
| Hidroeléctrica Ituango S.A. E.S.P.       | 34.227           | 34.227           |
| Hidroeléctrica del Río Aures S.A. E.S.P. | 2.478            | 2.478            |
| UNE EPM Telecomunicaciones S.A.          | 2.342.488        | 2.342.488        |
| Inversiones Telco S.A.S.                 | 55.224           | 55.224           |
| <b>Total associate investments</b>       | <b>2.434.417</b> | <b>2.434.417</b> |

*Amounts expressed in millions of Colombian pesos -*

## Nota 10. Investments in joint ventures

The detail of the EPM joint ventures at the cut-off date is as follows:

| Name of the joint venture           | Location (country) | Main activity                                                                                                                            | Percentage of ownership and voting rights |      | Creation date |
|-------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------|---------------|
|                                     |                    |                                                                                                                                          | 2017                                      | 2016 |               |
| Parques del Río S.A.S. <sup>1</sup> | Medellín           | Construction, operation, administration and support of the Parques del Río Medellín project, as well as acting as urban project manager. | 33%                                       | 33%  | 26/12/2015    |

<sup>1</sup> Joint venture constituted on November 26, 2015, with the participation of the municipality of Medellín, Interconexión Eléctrica S.A. E.S.P. (ISA), Empresa de Transporte Masivo del Valle de Aburra Ltda. (Metro) and EPM. The Entity seeks to be the manager of the next urban developments of the city, the department and the country, taking advantage of synergies in the areas of infrastructure, mobility, environmental and social, among others.

The value of the investments in joint ventures at the cut-off date was:

| Name of the joint venture              | 2017      | 2016      |
|----------------------------------------|-----------|-----------|
| Parques del Río S.A.S.                 | 99        | 99        |
| <b>Total joint venture investments</b> | <b>99</b> | <b>99</b> |

*Amounts expressed in millions of colombian pesos -*

## Nota 11. Trade debtors and other accounts receivable

The details of trade and other accounts receivables as of the date of the reporting periods are as follows:



| Trade debtors and other accounts receivable | 2017             | 2016             |
|---------------------------------------------|------------------|------------------|
| <b>Non-current</b>                          |                  |                  |
| Debtors public services                     | 302.514          | 290.587          |
| Impairment of public services               | (84.493)         | (72.212)         |
| Economic linked (See note 38)               | 1.688.594        | 1.662.265        |
| Employee loans                              | 80.779           | 59.001           |
| Dividends and participations receivable     | -                | -                |
| Impairment of employee loans                | -                | -                |
| Construction contracts                      | -                | -                |
| Other debtors receivable                    | 19.086           | 21.745           |
| Impairment other loans                      | (130)            | -                |
| <b>Total non-current</b>                    | <b>2.006.350</b> | <b>1.961.386</b> |
| <b>Current</b>                              |                  |                  |
| Debtors public services                     | 1.325.815        | 1.249.723        |
| Impairment of public services               | (182.091)        | (184.099)        |
| Economic linked (See note 38)               | 45.195           | 58.884           |
| Employee loans                              | 27.583           | 20.750           |
| Dividends and participations receivable     | 20.482           | -                |
| Impairment of employee loans                | (286)            | (136)            |
| Construction contracts                      | 246              | -                |
| Other debtors receivable                    | 329.753          | 267.435          |
| Impairment other loans                      | (43.174)         | (46.731)         |
| <b>Total current</b>                        | <b>1.523.523</b> | <b>1.365.826</b> |
| <b>Total</b>                                | <b>3.529.873</b> | <b>3.327.212</b> |

*Amounts expressed in millions of Colombian pesos colombianos*

The non-current portion shows an increase of \$ 44,964, explained mainly in loans to economic associates for \$ 26,329, by the increase in accounts receivable to South Water and for the valuation at amortized cost and in loans to employees for \$ 21,778, for housing loans.

The current portion increased by \$ 157,697 explained by: a) debtors of the energy service for \$ 56,887 and b) other debtors, mainly, for the account receivable to the Special Administrative Unit of the National Tax and Customs Directorate (DIAN) for \$ 127,204, for the claim of the estate tax.

The accounts receivable from debtors of public services do not generate interest and the term for their collection depends on the type of use of the same. In the residential use, the collection of invoices is projected to take place 10 days after the invoice is generated. Individual contracts with large clients or from the energy sector contemplate deadlines agreed in particular negotiations. In the latter case, the period is generally of 30 days.

49% of the total balance corresponds to loans to related parties for \$ 1,733,789: Investments and Advisory South Water for \$ 906,848 (2016: \$ 1,047,759), Hidroecológica del Teribe for \$ 233,970 (2016: \$ 384,282), EPM Chile for \$ 187,075 (2016: \$ 289,109) and the valuation at amortized cost of \$ 42,357. These loans were granted in US dollars and the balance for each company does neither include exchange differences nor valuations.

<sup>1</sup>Corresponds to dividends receivable from the subsidiary Panamá Distribution Group S.A. PDG

### **Impairment of receivables**

The Group measures the correction of value for expected losses during the life of the asset using the simplified approach, which consists in taking the current value of the credit losses that arise from all events of “default” possible at any time during the life of the operation.

This alternative is taken given that the volume of customers handled by the Group is very high and the measurement and risk control by phases may entail errors and an undervaluation of the impairment.

The model of expected loss corresponds to a forecast tool that projects the probability of default (non-payment) in a period of one year. Each obligation is assigned an individual probability of no payment that is calculated based on a probability model that involves sociodemographic variables, of the product and of behavior.

At the cut-off date, the seniority analysis of accounts receivable at the end of the reporting period over the which is informed that are impaired is:

|                                      | 2017                  |                                                   | 2016                  |                                                   |
|--------------------------------------|-----------------------|---------------------------------------------------|-----------------------|---------------------------------------------------|
|                                      | Gross Carrying Amount | Value expected credit losses during the life time | Gross Carrying Amount | Value expected credit losses during the life time |
| <b>Debtors public services</b>       |                       |                                                   |                       |                                                   |
| Not past due nor impaired            | 1.249.274             | (91.396)                                          | 1.788.343             | (96.353)                                          |
| Less than 30 days                    | 152.456               | (2.452)                                           | 150.655               | (18.398)                                          |
| 30-60 days                           | 37.170                | (1.734)                                           | 46.580                | (14.441)                                          |
| 61-90 days                           | 8.046                 | (2.069)                                           | 7.071                 | (966)                                             |
| 91-120 days                          | 8.232                 | (1.857)                                           | 5.910                 | (1.426)                                           |
| 121-180 days                         | 7.171                 | (3.122)                                           | 7.442                 | (3.074)                                           |
| 181-360 days                         | 11.812                | (10.651)                                          | 10.788                | (8.131)                                           |
| Greater than 360 days                | 154.168               | (152.933)                                         | 115.660               | (112.356)                                         |
| <b>Total debtors public services</b> | <b>1.628.329</b>      | <b>(266.214)</b>                                  | <b>2.132.449</b>      | <b>(255.145)</b>                                  |
| <b>Other debtors</b>                 |                       |                                                   |                       |                                                   |
| Not past due nor impaired            | 2.159.127             | (4.411)                                           | 1.407.502             | (2.343)                                           |
| Less than 30 days                    | 10.159                | (1.913)                                           | 11.521                | (1.411)                                           |
| 30-60 days                           | 5.288                 | (1.744)                                           | 7.670                 | (2.477)                                           |
| 61-90 days                           | 626                   | (200)                                             | 1.517                 | (412)                                             |
| 91-120 days                          | 447                   | (190)                                             | 5.373                 | (3.387)                                           |
| 121-180 days                         | 636                   | (460)                                             | 11.021                | (10.224)                                          |
| 181-360 days                         | 2.800                 | (2.679)                                           | 25.894                | (1.933)                                           |
| Greater than 360 days                | 32.635                | (32.363)                                          | 27.443                | (25.846)                                          |
| <b>Total other debtors</b>           | <b>2.211.718</b>      | <b>(43.960)</b>                                   | <b>1.497.941</b>      | <b>(48.033)</b>                                   |
| <b>Total debtors</b>                 | <b>3.840.047</b>      | <b>(310.174)</b>                                  | <b>3.630.390</b>      | <b>(303.178)</b>                                  |

Amounts expressed in millions of Colombian pesos -

The deterioration of accounts receivable from public services shows an increase of \$ 11,068 in relation to 2016, mainly explained by the link to the prepaid products in the massive portfolio, since the change from the traditional service to this alternative generates that the accumulated provision is adjusted to a 100% of the exposed balance.

The reconciliation of the expected credit losses of the portfolio is as follows:

| 2017                                                                                            | Credit losses expected during the life of the asset (collectively assessed) | Credit losses expected during the life of the asset (individually assessed) | Financial assets with credit impairment (credit losses expected during the life time of the asset) |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Value correction at the beginning of the period                                                 | (163.598)                                                                   | (139.580)                                                                   | (303.178)                                                                                          |
| Changes in the impairment of accounts receivable that existed at the beginning of the period(1) | (2.347)                                                                     | (14.180)                                                                    | (16.527)                                                                                           |
| Financial assets that have been derecognized during the period                                  | 16                                                                          | 2.883                                                                       | 2.899                                                                                              |
| New financial assets originated or purchased <sup>(1)</sup>                                     | -                                                                           | (20.976)                                                                    | (20.976)                                                                                           |
| Cancellations                                                                                   | -                                                                           | 27.721                                                                      | 27.721                                                                                             |
| Exchange difference and other movements                                                         | (16.735)                                                                    | 16.622                                                                      | (113)                                                                                              |
| <b>Ending balance</b>                                                                           | <b>(182.664)</b>                                                            | <b>(127.510)</b>                                                            | <b>(310.174)</b>                                                                                   |

<sup>1</sup>The impairment of accounts receivable for \$ 37,503, was presented in: Distribution for \$ 11,880, of the provision of the portfolio associated to the prepaid energy products for \$ 5,195 and massive energy customers for \$ 3,466; Generation for \$ 8,998, of the XM provision for \$ 3,005 (Electricaribe negotiation), account receivable from the National Tax and Customs Office for \$ 2,184 and the long-term contracts of Electricaribe for \$ 1,717 and \$ 3,720, corresponding to the Cajanal client's provision for \$ 1,862, pension shares for \$ 1,395 and Consorcio SAYP for \$ 1,045. In the conciliation, the other movements of credits to employees, provision of services, sale of goods, accounts receivable from the supply service, among others, are considered.

The reconciliation of the portfolio is as follows:

| 2017                                                     | Credit losses expected during the life of the asset<br>(collectively assessed) | Credit losses expected during the life of the asset<br>(individually assessed) | Financial assets with credit impairment<br>(credit losses expected during the life time of the asset) |
|----------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Beginning balance of financial assets                    | 1.794.439                                                                      | 1.835.951                                                                      | 3.630.390                                                                                             |
| Collective financial assets transferred to assets        | -                                                                              | -                                                                              | -                                                                                                     |
| Individual financial assets transferred to assets        | -                                                                              | -                                                                              | -                                                                                                     |
| New financial assets originated or purchased             | 5.389.268                                                                      | 5.091.409                                                                      | 10.480.677                                                                                            |
| Cancellations of financial assets                        | (5.361.446)                                                                    | (4.906.675)                                                                    | (10.268.121)                                                                                          |
| Financial assets that have been derecognized in accounts | (16)                                                                           | (2.883)                                                                        | (2.899)                                                                                               |
| Other changes                                            | -                                                                              | -                                                                              | -                                                                                                     |
| <b>Ending balance</b>                                    | <b>1.822.245</b>                                                               | <b>2.017.802</b>                                                               | <b>3.840.047</b>                                                                                      |

*Amounts expressed in million of Colombian pesos*

The Group writes off, against the impairment recognized in a corrector account, the values of the impaired financial assets when it becomes evident that there are obligations that cannot be recovered through the executive via, coercive collection or ordinary means, actions of which the supports must be attached to the files where the request for punishment is documented.

The causals for requesting the approval of the portfolio penalty in EPM are the following:

- The accounts receivable recorded do not present certain rights, goods or obligations for the entity.
- The rights or obligations lack of documents and proper support that permit to carry out the relevant procedures for their collection or payment.
- It is not possible to make the collection of the right or obligation, by coercive or judicial collection, once the pre-legal stage has been exhausted.
- When it is impossible to identify and individualize a natural or legal person, to collect the portfolio.
- Evaluated and established the cost-benefit relation, it is more onerous to advance the collection process than the value of the obligation.
- When the prescription of the security and executive title or the expiration of the right is presented.
- That, having advanced the executive process, there are no assets to make the payment of the obligation effective.
- When the liquidation process of a natural or legal person has been advanced in terms of law, the goods received in payment dation do not cover the entire debt; the unpaid balance will be written off.

#### Instances responsible for the punishment

The punishment in EPM is approved by the Portfolio Reprisal Committee, which is chaired by the Accounting and Financial Services Manager, the assistance of the Director of Financial Transactions and the head of the Credit and Management Portfolio Unit. The Committee meets at the request of the head of the Credit and Management Portfolio Unit or when a particular situation warrants it.

## Nota 12. Other financial assets

The detail of other financial assets at the end of the period is:

| Other financial assets                                                                               | 2017             | 2016             |
|------------------------------------------------------------------------------------------------------|------------------|------------------|
| <b>Non-current</b>                                                                                   |                  |                  |
| <b>Derivatives designated as hedging instruments under hedge accounting</b>                          |                  |                  |
| Swap Agreements                                                                                      | 14.150           | -                |
| <b>Total derivatives designated as hedging instruments under hedge accounting</b>                    | <b>14.150</b>    | <b>-</b>         |
| <b>Financial assets measured at fair value through profit or loss for the period</b>                 |                  |                  |
| Fixed income securities                                                                              | 55.314           | 37.958           |
| Fiduciary rights                                                                                     | 353.669          | 354.170          |
| <b>Total assets measured at fair value through profit or loss for the period</b>                     | <b>408.983</b>   | <b>392.128</b>   |
| <b>Financial assets designated at fair value through changes in other comprehensive income</b>       |                  |                  |
| Equity instruments                                                                                   | 1.605.902        | 1.130.682        |
| <b>Total financial assets designated at fair value through changes in other comprehensive income</b> | <b>1.605.902</b> | <b>1.130.682</b> |
| <b>Total other non-current financial assets</b>                                                      | <b>2,029,035</b> | <b>1,522,810</b> |
| <b>Current</b>                                                                                       |                  |                  |
| <b>Derivatives designated as hedging instruments under hedge accounting</b>                          |                  |                  |
| Futures contracts                                                                                    | 96               | 18               |
| <b>Total derivatives designated as hedging instruments under hedge accounting</b>                    | <b>96</b>        | <b>18</b>        |
| <b>Financial assets measured at fair value through profit or loss for the period</b>                 |                  |                  |
| Fixed income securities                                                                              | 57.494           | 374.621          |
| Pledged investments                                                                                  | 5.434            | 4.361            |
| <b>Total financial assets measured at fair value through profit or loss</b>                          | <b>62.928</b>    | <b>378.982</b>   |
| <b>Total other current assets</b>                                                                    | <b>63.024</b>    | <b>379.000</b>   |
| <b>Total other assets</b>                                                                            | <b>2,092,059</b> | <b>1,901,810</b> |

Amounts expressed in millions of Colombian pesos -

Conventional purchases and sales of financial assets are accounted for by applying the negotiation date.

## 12.1 Financial assets designated at fair value through the other comprehensive income

The detail of equity investments designated at fair value through the other comprehensive income is:

| Equity Investment                                                                                          | 2017             | 2016             |
|------------------------------------------------------------------------------------------------------------|------------------|------------------|
| ISAGEN S.A. E.S.P. <sup>1</sup>                                                                            | -                | -                |
| Interconexión Eléctrica S.A. E.S.P. <sup>1</sup>                                                           | 1.598.999        | 1.123.803        |
| Otras inversiones                                                                                          | 6.903            | 6.879            |
| <b>Total</b>                                                                                               | <b>1.605.902</b> | <b>1.130.682</b> |
| Accumulated gain from changes in fair value transferred to retained earnings / losses during the period    | -                | 578.395          |
| Dividends recognized during the period related to investments that are recognized at the end of the period | 44.157           | 32.433           |
| <b>Dividends recognized during the period</b>                                                              | <b>44.157</b>    | <b>32.433</b>    |

Amounts expressed in millions of Colombian pesos -

<sup>1</sup> As of December 31, 2017, the stock price of Interconexión Eléctrica S.A. E.S.P. closed at \$ 14,200 pesos (2016 \$ 9,980 pesos).

Equity investments indicated in the preceding table are not maintained for negotiation purposes, instead, they are maintained with strategic medium and long term purposes. The Administration of the EPM Group considers that the classification for these strategic investments provides more reliable financial information that reflects immediately the changes in their fair value in profit and loss.

## Nota 13. Leases

### 13.1. Financial leases as a lessee

At the cut-off date, the carrying amount of property, plant and equipment under financial lease is as follows:

| 2017                     | Land and buildings | Computer and communication equipment | Machinery and equipment | Total assets   |
|--------------------------|--------------------|--------------------------------------|-------------------------|----------------|
| Cost                     | 200.057            | 2.380                                | 2.063                   | 204.500        |
| Accumulated depreciation | (69.600)           | (1.465)                              | (1.077)                 | (72.142)       |
| <b>Total</b>             | <b>130.457</b>     | <b>915</b>                           | <b>986</b>              | <b>132.358</b> |

- Amounts expressed in millions of Colombian pesos -

| 2016                     | Land and buildings | Computer and communication equipment | Machinery and equipment | Total assets   |
|--------------------------|--------------------|--------------------------------------|-------------------------|----------------|
| Cost                     | 200.057            | 2.380                                | 2.063                   | 204.500        |
| Accumulated depreciation | (65.263)           | (1.374)                              | (1.011)                 | (67.648)       |
| <b>Total</b>             | <b>134.794</b>     | <b>1.006</b>                         | <b>1.052</b>            | <b>136.852</b> |

- Amounts expressed in millions of Colombian pesos -

The most significant financial lease agreement is the building called "Edificio Empresas Públicas de Medellín". The agreement has a duration of 50 years counted from December 2001, renewable automatically for an equal term if neither party expresses otherwise. The value of the fee is \$ 1,500 per month, which will be readjusted each year by the Consumer Price Index (CPI).

At the report date, the minimum future payments and the present value of the minimum payments for financial lease are distributed as follows:

| Financial lease                                | 2017             |                                   | 2016             |                                   |
|------------------------------------------------|------------------|-----------------------------------|------------------|-----------------------------------|
|                                                | Minimum payments | Present Value of Minimum payments | Minimum payments | Present Value of Minimum payments |
| One year                                       | 18.000           | 17.181                            | 18.000           | 17.181                            |
| More than one year and up to five years        | 72.000           | 55.613                            | 72.000           | 55.613                            |
| More than five years                           | 522.000          | 123.514                           | 540.000          | 124.420                           |
| <b>Total leases</b>                            | <b>612.000</b>   | <b>196.308</b>                    | <b>630.000</b>   | <b>197.214</b>                    |
| Less - value of unearned interest              | (415.692)        | -                                 | (432.786)        | -                                 |
| <b>Present value of minimum lease payments</b> | <b>196.308</b>   | <b>196.308</b>                    | <b>197.214</b>   | <b>197.214</b>                    |

- Amounts expressed in millions of Colombian pesos -

The expense for contingent leases of financial leases recognized in profit or loss for the period is \$ 18,692 (2016: \$ 16,407).

### 13.2 Operating lease as a lessor

The most significant operating leasing agreements are of the electrical infrastructure for the installation of telecommunications networks by telecommunication operators. The contingent installments of these leases are determined based on the update of PPI or CPI variable as well as the update of the rent lease payments and these agreements contemplate the option to be renewed.

The value of non-cancelable payments for operating leases is:

| Leasings                              | 2017                            | 2016                            |
|---------------------------------------|---------------------------------|---------------------------------|
|                                       | Non-cancelable operating leases | Non-cancelable operating leases |
| One year                              | 41.452                          | 40.250                          |
| More than a year and up to five years | 8.598                           | 10.470                          |
| More than five years                  | 14.069                          | 12.811                          |
| <b>Total leases</b>                   | <b>64.119</b>                   | <b>63.531</b>                   |

*Amounts expressed in millions of Colombian pesos*

Income from contingent leases recognized in profit or loss for the period is \$ 24,003 (2015: \$ 3,849).

The Group as a lessor does not have contracts that adopt the legal form of a lease and that essentially do not constitute it.

### 13.3 Operating lease as lessee

The most significant operating leases are premises for the customer service offices in the different municipalities of Antioquia and the Metropolitan Area, spaces for facilities and operation of antennas in the meteorological stations, office automation filters and accessories, user printing infrastructure, equipment for virtual meetings, among others, which have no restrictions. The contingent fees of these leases are determined based on the Consumer Price Index (CPI), can be renewed and the contract lease payments are updated by the CPI.

As of the report date the future minimum payments for operating leasing, not cancellable, are distributed as follows:

| Leasings                              | 2017                            | 2016                            |
|---------------------------------------|---------------------------------|---------------------------------|
|                                       | Non-cancelable operating leases | Non-cancelable operating leases |
| One year                              | 13.748                          | 12.557                          |
| More than a year and up to five years | 16.943                          | 22.101                          |
| <b>Total leasings</b>                 | <b>30.691</b>                   | <b>34.658</b>                   |

*Amounts expressed in millions of Colombian pesos*

The total minimum future payments for subleasing non-cancellable of assets acquired under operating leasing is \$18 (2016: \$11). The contingent leasing expense recognized in the profit and loss of the period is \$133, (2016: \$18)

Operating lease fees recognized as expenses for the period are \$ 10,716 (2016: \$ 9,040).

The Group as lessor, does not have contracts that adopt the legal form of a lease and that in essence do not constitute it.

## Nota 14. Guarantees

The company has not granted guarantees in which the third party is authorized to sell or pledge without it has been produced a breach by the company.

The company has not received guarantees in which it is authorized to sell or pledge them without it has been produced a breach by the owner of the guarantee.

## Nota 15. Other assets

The detail of other assets at the end of the reporting periods is:

| Concept                                                     | 2017           | 2016           |
|-------------------------------------------------------------|----------------|----------------|
| <b>Non-current</b>                                          |                |                |
| Payments made in advanced <sup>(1)</sup>                    | 25.820         | 36.360         |
| Employee benefits <sup>(1)</sup>                            | 39.545         | 26.437         |
| Advances to suppliers <sup>(2)</sup>                        | 9.522          | -              |
| Deferred income from retro leaseback or leaseback operation | 22.958         | 23.634         |
| Goods received in payment form                              | 1.285          | 1.286          |
| <b>Total other non-current assets</b>                       | <b>99.130</b>  | <b>87.717</b>  |
| <b>Current</b>                                              |                |                |
| Payments made in advanced <sup>(1)</sup>                    | 55.408         | 51.391         |
| Advances to suppliers <sup>(2)</sup>                        | 45.160         | 33.840         |
| Tax to sales                                                | -              | 1.722          |
| <b>Total other current assets</b>                           | <b>100.568</b> | <b>86.953</b>  |
| <b>Total other assets</b>                                   | <b>199.698</b> | <b>174.670</b> |

Amounts expressed in millions of Colombian pesos -

<sup>1</sup>The non-current portion includes insurance for \$ 15,369 (2016: \$ 24,968) conformed by the all-risk policies of the Ituango Hydroelectric Project for \$ 15,141 (2016: \$ 24,550) and extra-contractual civil responsibility for \$ 228 (2016: \$ 418), both valid until 15 March 2020, which are being amortized; the premium in legal stability contracts for \$ 9,141 (2016: \$ 10,033) and leases for \$ 1,310 (2016: \$ 1,359).

The current portion includes insurance for \$ 46,982 (2016: \$ 50,025), consisting mainly of the all-risk policies for \$ 27,405 (2016: \$ 27,271), from which \$ 9,459 (2016: \$ 9,496) are from the Ituango Hydroelectric Project, and other insurances for \$ 19,577 (2016: \$ 17,099) from which \$ 13,414 (2016: \$ 14,866) correspond to climate change insurance; goods and services for \$ 3,076 (2016: \$ 1,321) and leases and maintenance for \$ 5,349 (2016: \$ 48).

<sup>2</sup>The non-current portion corresponds to resources delivered in administration, mainly of the covenants with: Urban Development Company - EDU for \$ 6,893, Corporación Parque Arví for \$ 1,152 and foundation EPM for \$ 1,049.

The current portion includes advances of goods and services for \$ 34,819 (2016: \$ 33,840) mainly to: Chevron Petroleum Company for \$ 18,540 (2016: \$ 14,070) and Ecopetrol for \$ 11,256 (2016: \$ 12,996); and resources delivered in administration for \$ 10,136, mainly from the covenants with: Cuenca Verde for \$ 4,920, with the Metro de Medellín for \$ 1,200 and the Museum of Antioquia for \$ 1,053.

## Nota 16. Inventories

Inventories at the end of the period were represented as follows:

| Inventories                                            | 2017           | 2016           |
|--------------------------------------------------------|----------------|----------------|
| Materials for the rendering of services <sup>(1)</sup> | 113.739        | 112.531        |
| Merchandise in stock <sup>(2)</sup>                    | 2.149          | 1.943          |
| Goods in transit                                       | 595            | 606            |
| <b>Total inventories</b>                               | <b>116.483</b> | <b>115.080</b> |

Amounts expressed in millions of Colombian pesos -

<sup>1</sup> Includes the materials for the rendering of services held by third parties. That are those delivered to contractors performing activities related to the provision of services.



<sup>2</sup> Includes merchandise in stock that do not require transformation, such as energy, gas and water meters, and supply goods, as well as those held by third parties.

Inventories were recognized for \$ 100,512 (2016: \$ 85,934) as the cost of the merchandise sold or cost to provide the service during the period. The value reductions of the inventories recognized as an expense during the period increased to \$ 114 (2016: \$ 1,151).

The Company has not generated value losses when purchasing the net realizable value with the average cost of the inventories.

The Company does not have committed inventories to guarantee liabilities

## Nota 17. Cash and cash equivalents

The composition of cash and cash equivalents at the end of the period is as follows:

| Cash and cash equivalents                                                              | 2017           | 2016           |
|----------------------------------------------------------------------------------------|----------------|----------------|
| Cash on hand and in banks                                                              | 106.520        | 333.321        |
| Other cash equivalents <sup>(1)</sup>                                                  | 128.006        | 185.757        |
| <b>Total cash and cash equivalents reported in the statement of financial position</b> | <b>234.526</b> | <b>519.078</b> |
| <b>Cash and cash equivalents reported in the statement of cash flows</b>               | <b>234.526</b> | <b>519.078</b> |
| <b>Restricted cash</b>                                                                 | <b>116.250</b> | <b>130.059</b> |

*Amounts expressed in millions of Colombian pesos -*

Treasury investments mature within a period equal to or less than three months from their acquisition date and accrue market interest rates for this type of investments.

The company has restrictions on cash and cash equivalents detailed below. As of December 31, 2017, the fair value of restricted cash equivalents is \$ 116,250 (2016: \$ 130,059).

| Fund or Agreement                                                 | Destination                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2017   | 2016   |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|
| Bogota river parks agreement                                      | Transfer of public utility networks for the performance of the project called Rio Medellin Parks.                                                                                                                                                                                                                                                                                                                                                                                                                  | 22.373 | 26.521 |
| Sintraemdes Housing Fund                                          | Contributing to the acquisition of homes and the improvement thereof, of employees beneficiaries of the labor agreement executed between EPM with the unions.                                                                                                                                                                                                                                                                                                                                                      | 20.410 | 16.426 |
| Sinpro Housing Fund                                               | Contributing to the acquisition of homes and the improvement thereof, of employees beneficiaries of the labor agreement executed between EPM with the unions.                                                                                                                                                                                                                                                                                                                                                      | 17.525 | 10.675 |
| International energy transactions                                 | Guarantee corresponding to the "compensation" that must be made between the invoice of energy pool transactions and the advance payments, seeking that the actual payment be made to XM.                                                                                                                                                                                                                                                                                                                           | 10.721 | 10.907 |
| Banco Bogota INCODER                                              | Join efforts and resources between EPM and INCODER to carry out the project "feasibility study for the construction of the irrigation and drainage district in part of the region of Uraba of Antioquia" with multipurpose scope.                                                                                                                                                                                                                                                                                  | 9.989  | 11.194 |
| Bogota Bolivar Promenade                                          | Adapting carrera 51 (Bolivar) between 44 street (San Juan) and 57 street (La Paz) and convert that road segment in what will be called the Bolivar Promenade.                                                                                                                                                                                                                                                                                                                                                      | 7.102  | 16.167 |
| Ministry of Mines and Energy - Special Promotion Installment Fund | Co-financing agreement for the construction, distribution infrastructure and connection to lower income users in the municipalities of Amaga, Santafe de Antioquia, Sopetran, San Jeronimo AND Ciudad Bolívar. Compressed Natural Gas and connection to users of Don Matias, Entrerrios, San Pedro, Santa Rosa and Yarumal. Agreement No 106: construction of the connection infrastructure to users of the Valley of Aburra, La Ceja, La Union and El Retiro. Agreement 179: includes the municipality of Sonsón. | 5.245  | 5.003  |

- Amount expressed in millions of Colombian pesos -

| Fund or Agreement                                                             | Destination                                                                                                                                                                                                                                                                                                           | 2017  | 2016  |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|
| Agreement with municipalities on rates of public lighting and public cleaning | Agreement to manage the resources of the territorial entities for the payment to the municipalities with agreements for collection of public lighting and public cleaning rates; these are resources exempt from the tax on financial transactions.                                                                   | 3.308 | 676   |
| Municipalities of Guatape and Cornare                                         | Joint efforts for the improvement of the technical, economic and social conditions for the performance of phase 1 of the project for improvement of the environmental and landscaping infrastructure of the San Juan del Puerto Esplanade, for the development of sustainable tourism in the Municipality of Guatape. | 2.334 | 2.213 |
| Sinpro Education Fund                                                         | Promoting the wellbeing of employees to meet the needs of the payment of registration fees, books and supplies that are required to pursue their own studies and those of the family group.                                                                                                                           | 2.140 | 1.956 |
| Autonomous Corporation of Guatape                                             | Join efforts for the improvement of the technical, economic and social conditions for the performance of phase 1 of the project for improvement of the environmental and landscaping infrastructure of the San Juan del Puerto Esplanade, for the development of sustainable tourism in the Municipality of Guatape.  | 2.110 | 2.011 |
| Sintraemdes Education Fund                                                    | Promoting the wellbeing of employees to meet the needs of the payment of registration fees, books and supplies that are required to pursue their own studies and those of the family group.                                                                                                                           | 2.010 | 1.905 |
| Adapted Health Entity Fund and Fosyga Fund                                    | Control and follow up mechanism of the collection of contributions to the Contributive Regime of the General Social Security in Health System.                                                                                                                                                                        | 1.610 | 5.480 |
| Sintraemdes Disaster Fund                                                     | Promoting the wellbeing of employees to meet their urgent and unforeseen needs or those of their primary family group.                                                                                                                                                                                                | 1.551 | 1.454 |
| SOMOS point agreement                                                         | Rendering of services for the operation of the key capacities associated to the element Points of the Large Scale Loyalty Program for the EPM Group.                                                                                                                                                                  | 1.522 | 577   |
| Sinpro Disaster Fund                                                          | Promoting the wellbeing of employees to meet their urgent and unforeseen needs or those of their primary family group.                                                                                                                                                                                                | 1.293 | 1.131 |
| Aldeas Program                                                                | Make use of the wood that completes its aging cycle in the forests planted by EPM around its dams, to construct social interest housing in the municipalities of Antioquia outside the Aburra Valley and deliver them to low income families, preferably in a situation of forced or voluntary displacement.          | 1.165 | 1.105 |
| Municipality of Medellin - Water                                              | Integral management of water for human consumption of the inhabitants of the municipality of Medellin.                                                                                                                                                                                                                | 879   | 3.124 |
| Ministry of Mines and Energy                                                  | Contributions by the Ministry of Mines and Energy in accordance with the provisions of contract FAER GGC 430 of 2015 intended to rural electrification works in the municipality of Ituango.                                                                                                                          | 643   | 643   |

- Amount expressed in millions of Colombian pesos -

| Fund or Agreement                                                                         | Destination                                                                                                                                                                                                                                                                          | 2017 | 2016  |
|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|
| Governor's Office Subsidies 2016                                                          | Administrating the resources for the subsidy of the connections of lower income users in the department of Antioquia.                                                                                                                                                                | 526  | -     |
| Motorcycle repair fund                                                                    | Promoting the wellbeing of official workers who act in the regional market and use motorcycles owned by them for the performance of their duties .                                                                                                                                   | 381  | 349   |
| Inter-administration agreement on Plaza del Tomatero in the Municipality of El Peñol      | Joint efforts for the improvement of technical, economic, environmental and social conditions in order to dynamize development and offset the impact that the reduction of the Peñol-Guatape dam levels generates for the municipality of El Peñol.                                  | 369  | 1.052 |
| Montreal Protocol multilateral fund                                                       | Cooperation agreement with the Ministry of Environment and Sustainable Development for the performance of activities within the framework of the implementation in Colombia of the Montreal Protocol.                                                                                | 249  | 298   |
| Municipality of Caldas                                                                    | Managing and administrating the resources intended by the Municipality of Caldas to the performance of the project: Construction, replacement and modernization of water supply and sewage networks and their complementary works, in the urban zone of the Municipality of Caldas . | 168  | 163   |
| Thermal District                                                                          | Agreement with the Ministry of Environment and Sustainable Development for the performance of activities of the Thermal District La Alpujarra.                                                                                                                                       | 167  | 282   |
| IADB Credit 2120                                                                          | Disbursement for the construction of the Bello waste waster treatment plan (PTAR).                                                                                                                                                                                                   | 166  | 167   |
| Municipality of Barbosa - Subsidies                                                       | Agreement to subsidize partially the connection of users from 1 and 2 strata.                                                                                                                                                                                                        | 59   | 56    |
| Espíritu Santo                                                                            | EPM - Espíritu Santo Liquidation                                                                                                                                                                                                                                                     | 58   | 56    |
| Municipality of Medellin - Land                                                           | Acquisition of property identified and characterized within the water bas ins that supply the water supply systems in the Municipality of Medellin.                                                                                                                                  | 56   | 53    |
| Deposits Law 820                                                                          | Guarantee required by the lessor from the lessee, for the payment of utilities. As per Article 15 of Law 820 of 2003 and Regulatory Decree 3130 of 2003.                                                                                                                             | 53   | 53    |
| Master Agreement Municipality of Medellin No. 4600049285                                  | Construction by EPM of sidewalks and other roadside elements in the center of the city, capitalizing on the Centro Parilla project, that is, the renewal of the water supply and sewage networks .                                                                                   | 37   | 7.677 |
| Green Bas in                                                                              | Administering the resources assigned for the achievement of the objectives of the Corporación Cuenca Verde.                                                                                                                                                                          | 13   | 32    |
| Department of Antioquia, Agreement for construction El Aro - Municipality of Ituango Road | Administering the resources contributed by the Antioquia Governor's Office to co-finance the construction of the Road El Aro - Connection Via Puerto Valdivia, Location of the Dam - Municipality of Ituango.                                                                        | 7    | 5     |

- Amount expressed in millions of Colombian pesos -

| Fund or Agreement                             | Destination                                                                                                                                                                                    | 2017           | 2016           |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|
| Municipality of Itagüi Agreement Ajizal Sewer | Managing and administering los recursos assigned by the Municipality of Itagüi to the construction of the works of stabilization of the bed of the El Sesteadero Stream for the Ajizal Sewer . | 5              | 356            |
| Municipality of Medellín - Moravia            | Construction, repair and replacement of the water supply and sewage networks and paving in the Municipality of Medellín of the roads affected by these works in the Moravia neighborhood.      | 3              | 3              |
| IDEA Agreement 4600003912                     | Inter-administration agreement to join efforts for the design and construction of the electric power generation and distribution in rural zones in the department of Antioquia.                | 2              | 2              |
| IDEA Agreement 4600003283                     | Joining efforts for the construction of gas home intake connection in the different regions of the Department of Antioquia under the framework of the "Gas without Borders" program.           | 1              | 1              |
| National Royalties Fund - Gas                 | Construction of the compressed natural gas distribution infrastructure and subsidies for the connection to the users of 1 and 2 strata of the municipalities of El Peñol and Guatapé.          | -              | 281            |
| UVA Poblado Agreement 037000657546            | Support the Municipality of Medellín for the construction of the UVA (Articulated Road Unit), Poblado sector.                                                                                  | -              | 5              |
| <b>Total restricted resources</b>             |                                                                                                                                                                                                | <b>116.250</b> | <b>130.059</b> |

- Figures in millions of Colombian pesos -

## Nota 18. Equity

### 18.1 Capital

The company does not have its capital divided into fees / shares and has not had capital increases or decreases in the reporting period.

### 18.2 Reserves

Of the accounts that make up the equity, the reserves at the cut-off date were constituted by:

| Reserves                            | 2017             | 2016             |
|-------------------------------------|------------------|------------------|
| <b>Statutory reserves</b>           |                  |                  |
| Beginning balance                   | 2.505.608        | 2.870.900        |
| Constitution                        | -                | 182.774          |
| Appropriation                       | (135.563)        | (548.066)        |
| <b>Total statutory reserves</b>     | <b>2.370.045</b> | <b>2.505.608</b> |
| <b>Occasional reserves</b>          |                  |                  |
| Beginning balance                   | 574.008          | 574.008          |
| <b>Total occasional reserves</b>    | <b>574.008</b>   | <b>574.008</b>   |
| <b>Other reserves</b>               |                  |                  |
| Beginning balance                   | 7.591            | 7.591            |
| <b>Final balance other reserves</b> | <b>7.591</b>     | <b>7.591</b>     |
| <b>Total reserves</b>               | <b>2.951.644</b> | <b>3.087.207</b> |

*Amounts expressed in millions of Colombian pesos -*

The nature and purpose of equity reserves of the EPM Group are described below:

#### **Statutory reserves**

In compliance with Colombian tax provisions contained in Articles 130 (reserve of 70% for the excess of tax over accounting depreciation) of the Tax Statute and Decree 2336 of 1995 (for the profits incorporated into results in the application of the method of equity participation applied under local regulations), the company has constituted the legal reserves.

#### **Occasional reserves**

In compliance with article 211 of the Tax Statute, the company has constituted the required reserves in order to enjoy the special tax treatment and obtain a rationalization in the payment of income tax and complementary.

#### **Other reserves**

It includes patrimonial funds (appropriate resources prior to 1999 to grant housing loans to workers, Financing Plan, Self-insurance fund, housing fund).

<sup>1</sup>The Board of Directors, in its sessions of March 14, 2017 and March 31, 2016, approved:

- Release reserves for \$ 135,563 (2016: \$ 548,066) appropriate in previous periods by authorization of the Board of Directors.
- In 2016, constitute a reserve for \$ 182,774 over the surpluses of 2015, to comply with article 130 of the Tax Statute.

### **18.3 Retain profits**

The movement of retained earnings during the period was:

| Retained profits                                | 2017              | 2016              |
|-------------------------------------------------|-------------------|-------------------|
| Beginning balance                               | 14.766.986        | 13.056.702        |
| Impact of adoption IFRS 9 as of January 1, 2016 | -                 | (69.278)          |
| <b>Initial Restated balance</b>                 | <b>14.766.986</b> | <b>12.987.424</b> |
| Reserves movement                               | 135.563           | 365.292           |
| Surpluses or dividends decreed                  | (1.609.136)       | (816.521)         |
| Transfer of other comprehensive income          | -                 | 466.447           |
| Method of participation for equity variations   | 14.621            | (70.448)          |
| Other period movement                           | 73.128            | -                 |
| <b>Total retained earnings</b>                  | <b>13.381.162</b> | <b>12.932.194</b> |
| <b>Net result of the period</b>                 | <b>2.188.189</b>  | <b>1.834.792</b>  |
| <b>Total retained earnings</b>                  | <b>15.569.351</b> | <b>14.766.986</b> |

*Amounts expressed in millions of Colombian pesos -*

The surpluses paid during the year were \$ 1,309,136 (2016: \$ 816,521), \$ 550,438 (2016: \$ 445,375) ordinary and \$ 758,698 (2016: \$ 371,146) extraordinary which include the payment for \$ 300,000 of the sale of ISAGEN.

## Nota 19. Other accumulated comprehensive income

The breakdown of each component of the other comprehensive income of the separate statement of financial position and the corresponding tax effect is as follows:

| Other accumulated comprehensive income                                       | 2017             |                  |                  | 2016             |                 |                  |
|------------------------------------------------------------------------------|------------------|------------------|------------------|------------------|-----------------|------------------|
|                                                                              | Gross            | Tax effect       | Net              | Gross            | Tax effect      | Net              |
| Reclassification of properties, plant and equipment to investment properties | 13.439           | (1.360)          | 12.079           | 13.439           | (1.360)         | 12.079           |
| New measurements of defined benefit plans                                    | (12.367)         | 5.010            | (7.357)          | 6.368            | (3.632)         | 2.736            |
| Equity investments measured at fair value through equity                     | 2.305.097        | (131.202)        | 2.173.895        | 1.829.877        | (87.400)        | 1.742.477        |
| Participation in other comprehensive income of subsidiaries                  | 750.761          | 6.215            | 756.976          | 627.045          | 5.863           | 632.908          |
| Cash flow hedges                                                             | (28.880)         | 20.211           | (8.669)          | (23.738)         | 11.834          | (11.904)         |
| <b>Total</b>                                                                 | <b>3.028.050</b> | <b>(101.126)</b> | <b>2.926.924</b> | <b>2.452.991</b> | <b>(74.695)</b> | <b>2.378.296</b> |

Amounts expressed in million of Colombian pesos -

During the period, net gains from changes in the fair value of hedging instruments were reclassified to income for the period of \$ 87,938.

Next, a reconciliation of the initial and final balances to the report date is presented for each component of the comprehensive income:

### 19.1 Component: reclassification of properties, plant and equipment to investment properties

The reclassification component of property, plant and equipment to investment properties of other comprehensive income corresponds to transfers from property, plant and equipment to investment properties, which are measured at fair value. The changes in the fair value do not reclassify the result of the period.

| Reclassification of properties, plant and equipment to investment properties | 2017          | 2016          |
|------------------------------------------------------------------------------|---------------|---------------|
| Beginning balance                                                            | 12.079        | 3.335         |
| Net earnings from changes in the fair value of investment properties         | -             | 9.700         |
| Associated income tax (or equivalent)                                        | -             | (956)         |
| <b>Total</b>                                                                 | <b>12.079</b> | <b>12.079</b> |

Amounts expressed in millions of Colombian pesos -

### 19.2 Component of new measurements of defined benefit plans

The component of new measurements of the defined benefit plans represents the accumulated value of the actuarial profits or losses, the returns of the assets of the plan and the changes in the effect of the asset's ceiling, excluding the values included in the net interest over the liability (asset) of net defined benefits. The net value of the new measurements is transferred to the accumulated profits and not reclassified to the results of the period.

| Component new measurements of defined benefit plans                 | 2017           | 2016         |
|---------------------------------------------------------------------|----------------|--------------|
| Beginning balance                                                   | 2.736          | 21.233       |
| Profit for the period for new measurements of defined benefit plans | (18.735)       | (36.268)     |
| Associated income tax (or equivalent)                               | 8.642          | 17.771       |
| <b>Total</b>                                                        | <b>(7.357)</b> | <b>2.736</b> |

Amounts expressed in millions of Colombian pesos -

### 19.3 Component: Equity investments measured at fair value through equity

The component of the other comprehensive income of equity investments measure at fair value through equity represents the accumulated value of profits or losses by the valuation at fair value less the values transferred to the accumulated profits when these investments have been sold. The changes in the fair value do not reclassify to the profit and loss for the period.



| Equity investments measured at fair value through equity                          | 2017             | 2016             |
|-----------------------------------------------------------------------------------|------------------|------------------|
| Beginning balance                                                                 | 1.742.477        | 1.762.516        |
| Net gains or losses on changes in the fair value of equity investments            | 475.220          | 554.390          |
| Associated income tax (or equivalent)                                             | (43.802)         | (107.982)        |
| Cumulative gains (losses) transferred to cumulative gains / losses for the period | -                | (578.395)        |
| Associated income tax (or equivalent)                                             | -                | 111.948          |
| <b>Total</b>                                                                      | <b>2.173.895</b> | <b>1.742.477</b> |

*Cifras en millones de pesos colombianos*

#### 19.4 Participation in other comprehensive income of associates and joint ventures

The component of the other comprehensive income in the other comprehensive income of subsidiaries represents the accumulated value of the application of the equity method to profits and losses of other comprehensive income of subsidiaries. The accumulated value of the gains or losses will be reclassified to the results of the period or to the accumulated profits, depending on the items that originated the equity method, when these investments have been sold.

| Participation in the other comprehensive income of subsidiaries                                                           | 2017           | 2016             |
|---------------------------------------------------------------------------------------------------------------------------|----------------|------------------|
| Beginning balance                                                                                                         | 632.908        | 863.491          |
| New measurements of defined benefit plans                                                                                 | (10.007)       | (62.340)         |
| Equity investments measured at fair value through equity                                                                  | 124.381        | (54.811)         |
| Hedging operations                                                                                                        | (100)          | 1.681            |
| Results for conversion of business abroad                                                                                 | 10.319         | (138.507)        |
| Income tax ( or equivalent ) associated                                                                                   | (101)          | 23.493           |
| <b>Total other comprehensive income for the period</b>                                                                    | <b>124.492</b> | <b>(230.484)</b> |
| Cumulative gains (losses) transferred to cumulative gains / losses for the period - New measures to defined benefit plans | 644            | (220)            |
| Earnings transferred to retained earnings for the period - Equity investments measured at fair value through equity       | (12)           | 54               |
| Accumulated losses transferred to the retained earnings for the period -Result for the conversion of businesses abroad    | (1.506)        | (2)              |
| Gains (losses) accumulated transferred to the retained earnings / losses of the period                                    | 450            | 69               |
| <b>Total otros resultado integral acumulado</b>                                                                           | <b>(424)</b>   | <b>(99)</b>      |
| <b>Total</b>                                                                                                              | <b>756.976</b> | <b>632.908</b>   |

*Amounts expressed in millions of Colombian pesos -*

#### 19.5 Component: cash flow hedging

The component of the other comprehensive income of cash flow hedging represents the accumulated value of the effective portion of the profits or losses that arise from the changes in the fair value of entries hedged in a cash flows hedging. The accumulated value of profits or losses will be reclassified to the results of the period only when the transaction hedged affects the result of the profit and loss of the period or the highly probable transaction is not anticipated that it will occur, or is included, as part of its carrying amount, in a non-financial hedged entry.

| Cash flow hedges                                                                                      | 2017           | 2016            |
|-------------------------------------------------------------------------------------------------------|----------------|-----------------|
| Beginning balance                                                                                     | (11.904)       | -               |
| Gains or losses on changes in the fair value of hedging instruments                                   | (93.080)       | (23.738)        |
| Associated income tax (or equivalent)                                                                 | 8.377          | 11.834          |
| Accumulated losses for changes in the fair value of hedged instruments reclassified to profit or loss | 87.938         | -               |
| <b>Total</b>                                                                                          | <b>(8.669)</b> | <b>(11.904)</b> |

- Amounts expressed in millions of Colombian pesos -

## Nota 20. Credits and loans

The following is the detail of carrying amount of credits and loans

| Credits and Loans                                | 2017              | 2016              |
|--------------------------------------------------|-------------------|-------------------|
| <b>Non current</b>                               |                   |                   |
| Commercial banks loans                           | 781.470           | 1.746.276         |
| Multilateral banks loans                         | 1.093.597         | 1.094.218         |
| Development banks loans                          | 802.370           | 842.053           |
| Bonds and securities issued                      | 7.785.050         | 5.849.554         |
| <b>Total other credits and loans non current</b> | <b>10.462.487</b> | <b>9.532.101</b>  |
| <b>Current</b>                                   |                   |                   |
| Commercial banks loans                           | 331.686           | 55.696            |
| Multilateral Banks loans                         | 574.672           | 570.337           |
| Development banks loans                          | 117.552           | 121.058           |
| Bonds and securities issued                      | 469.370           | 255.780           |
| Other bonds and securities issued                | 455.148           | 285.717           |
| Loans to economic associates                     | 36.415            | -                 |
| <b>Total other credits and current loans</b>     | <b>1.984.843</b>  | <b>1.288.588</b>  |
| <b>Total other credits and loans</b>             | <b>12.447.330</b> | <b>10.820.689</b> |

- Amounts expressed in millions of Colombian pesos -

In July 2017 EPM obtained a treasury credit for \$ 35,000 granted by Empresas Varias de Medellín E.S.P. at a DTF rate of 2.44% and a term of 1 year.

On August 15, 2017 the IDB 2217 loan destined to finance the social financing program was totally amortized.

In November 2017, EPM registered a debt management operation through the placement of bonds in the international capital market for \$ 2,300,000, equivalent to USD764 million, with a rate of 8.375% and a term of 10 years, destined for the partial prepayment of the Club Deal credit with international banking for \$ 2,315,609 (USD765 million), with a maturity date in 2020.

In December 2017 the company obtained short-term loans for \$ 300,000, with IBR rates between 1.65% and 1.80%.

On December 29, 2017 the company signed a credit contract for USD1,000 million IDB Invest, private sector of the Inter-American Development Bank, which will be used to partially finance the Ituango Hydroelectric Project. It is a credit with an A / B structure in which the IDB Group participates in tranche A, a relevant group of commercial banks and international institutional investors in North America, Europe and Asia (CDPQ, KFW IPEX, BNP Paribas, ICBC, Sumitomo Mitsui, BBVA and Banco Santander) fund Tranche B. Additionally, the loan includes resources from the China Fund - a Chinese co-financing fund managed by IDB Invest. The financing has a total term of 12 years for section A and for the resources contributed by the China Fund; Section B has terms of 8 and 12 years. The resources will be disbursed gradually during the 4 years that are as a disbursement period in accordance with the progress of the project.

Conversion to pesos of loans denominated in dollars: some of the IDB loans have the possibility of converting currencies, which allows the conversion to Colombian pesos of the balance in dollars, eliminating the exchange risk of the exposed balance. EPM made the following conversion in 2017:

On December 8, EPM applied a currency conversion to IDB credit 2120 for USD68.3 million.

In addition, the loan includes resources from the China Fund - a Chinese co-financing fund managed by IDB Invest. The financing has a total term of 12 years for trench A and for the resources contributed by the China Fund; Trench B has terms of 8 and 12 years. The resources will be disbursed gradually during the 4 years that are as a disbursement period in accordance with the progress of the project.

**Conversion to pesos of loans denominated in dollars:** some of the IDB loans have the possibility of converting currencies, which allows the conversion to Colombian pesos of the balance in dollars, eliminating the exchange risk of the exposed balance. EPM made the following conversion in 2017:

The new loans and long-term loans of the company were acquired in order to partially finance the Ituango hydroelectric project and the general investment plan.

The detail of the credits and loans by entity is the following:

| Entity or loan               | Original currency | Initial date | Term | Nominal interest rate | 2017   |                   |                      |                   | 2016   |                   |                      |                   |
|------------------------------|-------------------|--------------|------|-----------------------|--------|-------------------|----------------------|-------------------|--------|-------------------|----------------------|-------------------|
|                              |                   |              |      |                       | IRR    | Nominal value     | Amortized cost value | Total amount      | IRR    | Nominal value     | Amortized cost value | Total amount      |
| 3217 BID 2217/OC-CO          | USD               | 31/05/2012   | 6    | 3.48%                 | 0,00%  | -                 | -                    | -                 | 3,60%  | 6.668             | 90                   | 6.758             |
| 8858 EMVARIAS                | COP               | 6/07/2017    | 1    | DTF + 2.44%           | 8,20%  | 35.000            | 1.415                | 36.415            | 0,00%  | -                 | -                    | -                 |
| 1254 BONOS IPC               | COP               | 20/11/2008   | 10   | IPC + 7.12%           | 10,49% | 174.410           | 3.563                | 177.973           | 12,71% | 174.410           | 4.553                | 178.963           |
| 1256 BONOS TASA FIJA         | COP               | 20/11/2008   | 10   | 13.8%                 | 13,79% | 58.000            | 853                  | 58.853            | 13,79% | 58.000            | 857                  | 58.857            |
| 1267 BONOS IPC V TRAMO I     | COP               | 5/12/2013    | 5    | IPC + 3.82%           | 8,55%  | 41.880            | 83                   | 41.963            | 10,71% | 41.880            | (186)                | 41.694            |
| 6015 COLPATRIA               | COP               | 12/12/2017   | 1    | IBR + 1.65%           | 6,38%  | 100.000           | 324                  | 100.324           | 0,00%  | -                 | -                    | -                 |
| 6016 COLPATRIA               | COP               | 21/12/2017   | 1    | IBR + 1.65%           | 6,36%  | 100.000           | 170                  | 100.170           | 0,00%  | -                 | -                    | -                 |
| 6014 POPULAR                 | COP               | 26/12/2017   | 1    | IBR + 1.80%           | 6,47%  | 100.000           | 87                   | 100.087           | 0,00%  | -                 | -                    | -                 |
| 1257 BONOS IPC II TRAMO      | COP               | 22/01/2009   | 10   | IPC + 5.8%            | 10,25% | 138.600           | 2.447                | 141.047           | 12,39% | 138.600           | 2.321                | 140.921           |
| 1259 BONOS TF II TRAMO       | COP               | 22/01/2009   | 10   | 10.8%                 | 10,79% | 74.700            | 7.564                | 82.264            | 10,81% | 74.700            | 7.566                | 82.266            |
| 1262 BONOS INTERNACIONALE    | USD               | 29/07/2009   | 10   | 7.63%                 | 8,17%  | 1.492.000         | 39.894               | 1.531.894         | 8,16%  | 1.500.355         | 35.420               | 1.535.775         |
| 1275 BONOS IPC VII TRAMO I   | COP               | 20/03/2015   | 5    | IPC + 2.72%           | 7,11%  | 120.000           | (102)                | 119.898           | 9,12%  | 120.000           | (519)                | 119.481           |
| 1270 BONOS IPC VI TRAMO I    | COP               | 30/07/2014   | 6    | IPC + 3.57%           | 8,31%  | 125.000           | 322                  | 125.322           | 10,31% | 125.000           | 57                   | 125.057           |
| 2218 BID 800- RELIQUIDADO    | USD               | 14/12/1995   | 25   | LIBOR + 2.38%         | 2,29%  | 48.320            | 1.672                | 49.992            | 1,96%  | 72.886            | 2.856                | 75.742            |
| 2015 CLUB DEAL BANK OF TOKYO | USD               | 12/01/2016   | 5    | LIBOR + 1.4%          | 4,00%  | 701.240           | (3.567)              | 697.673           | 2,83%  | 1.680.398         | 5.833                | 1.686.231         |
| 1266 GLOBAL 2021 COP         | COP               | 31/01/2011   | 10   | 8.38%                 | 8,69%  | 1.250.000         | 85.144               | 1.335.144         | 8,70%  | 1.250.000         | 82.054               | 1.332.054         |
| 1264 BONOS IPC IV TRAM 2     | COP               | 14/12/2010   | 12   | IPC + 4.2%            | 8,74%  | 119.900           | 113                  | 120.013           | 10,67% | 119.900           | (377)                | 119.523           |
| 2021 BID 2120-1              | COP               | 27/05/2014   | 9    | 6.27%                 | 7,05%  | 190.295           | (1.892)              | 188.403           | 6,85%  | 190.295           | (725)                | 189.570           |
| 1268 BONOS IPC V TRAMO II    | COP               | 5/12/2013    | 10   | IPC + 4.52%           | 9,10%  | 96.210            | (529)                | 95.681            | 11,12% | 96.210            | (881)                | 95.329            |
| 2179 BANK OF TOKYO-MITSUB    | USD               | 16/01/2009   | 15   | LIBOR + 0.95%         | 1,17%  | 298.376           | 16.760               | 315.136           | 0,66%  | 350.063           | 22.041               | 372.104           |
| 1261 BONOS IPC III TRAMO     | COP               | 21/04/2009   | 15   | IPC + 6.24%           | 10,55% | 198.400           | 4.374                | 202.774           | 12,60% | 198.400           | 4.399                | 202.799           |
| 1273 GLOBAL 2024 COP         | COP               | 10/09/2014   | 10   | 7.63%                 | 7,73%  | 965.745           | 16.659               | 982.404           | 7,73%  | 965.745           | 16.169               | 981.914           |
| 1274 BONOS IPC V TRAM IV     | COP               | 20/03/2015   | 10   | IPC + 4.52%           | 8,94%  | 130.000           | 192                  | 130.192           | 10,94% | 130.000           | (175)                | 129.825           |
| 1665 BID-1664-1              | COP               | 31/03/2016   | 10   | 7.8%                  | 9,46%  | 379.692           | 3.935                | 383.627           | 9,57%  | 427.154           | 3.134                | 430.288           |
| 1271 BONOS IPC VI TRAMO II   | COP               | 30/07/2014   | 12   | IPC + 4.17%           | 8,70%  | 125.000           | 42                   | 125.042           | 10,73% | 125.000           | (290)                | 124.710           |
| 1276 BONOS IPC VII TRAMO II  | COP               | 20/03/2015   | 12   | IPC + 3.92%           | 8,25%  | 120.000           | (67)                 | 119.933           | 10,22% | 120.000           | (356)                | 119.644           |
| 1013 AFD                     | USD               | 14/06/2013   | 14   | 4.37%                 | 4,47%  | 840.979           | 13.696               | 854.675           | 4,47%  | 930.256           | 14.959               | 945.216           |
| 1278 GLOBAL 2027 COP         | COP               | 8/11/2017    | 10   | 8.38%                 | 8,46%  | 2.300.000         | 13.925               | 2.313.925         | 0,00%  | -                 | -                    | -                 |
| 5765 AGRARIO                 | COP               | 24/06/2014   | 16   | IPC + 4.7%            | 9,22%  | 116.000           | (1.098)              | 114.902           | 11,01% | 116.000           | (259)                | 115.741           |
| 1265 BONOS IPC IV TRAM 3     | COP               | 14/12/2010   | 20   | IPC + 4.94%           | 9,37%  | 267.400           | (57)                 | 267.343           | 11,33% | 267.400           | (788)                | 266.612           |
| 1269 BONOS IPC V TRAM III    | COP               | 5/12/2013    | 20   | IPC + 5.03%           | 9,54%  | 229.190           | (1.819)              | 227.371           | 11,55% | 229.190           | (2.393)              | 226.797           |
| BID 2120-2                   | COP               | 23/08/2016   | 18   | 7.5%                  | 8,04%  | 413.134           | 4.607                | 417.741           | 7,89%  | 438.172           | 8.324                | 446.496           |
| 2023 BID 2120-3              | COP               | 8/12/2017    | 16   | 6,27%                 | 6,56%  | 205.681           | 826                  | 206.507           | 0,00%  | -                 | -                    | -                 |
| 1272 BONOS IPC VI TRAM III   | COP               | 30/07/2014   | 20   | IPC + 4.5%            | 8,99%  | 250.000           | (191)                | 249.809           | 11,01% | 250.000           | (723)                | 249.277           |
| 1277 BONOS IPC VII TRAM III  | COP               | 20/03/2015   | 20   | IPC + 4.43%           | 8,86%  | 260.000           | 367                  | 260.367           | 10,78% | 260.000           | (446)                | 259.554           |
| 1220 BID 2120                | USD               | 26/07/2011   | 25   | LIBOR + 0%            | 3,33%  | 111.903           | (55)                 | 111.848           | 2,06%  | 159.408           | (15.419)             | 143.989           |
| 2016 BNDES                   | USD               | 28/09/2016   | 24   | 4.89%                 | 5,22%  | 76.971            | (3.092)              | 73.879            | 5,23%  | 24.042            | (2.235)              | 21.807            |
| <b>Total</b>                 |                   |              |      |                       |        | <b>12.254.026</b> | <b>206.565</b>       | <b>12.460.591</b> |        | <b>10.640.132</b> | <b>184.861</b>       | <b>10.824.994</b> |

- Amounts expressed in millions of Colombian pesos -

The transaction costs of contracted credits that have not been disbursed were \$ 8,362 (2016: \$ 4,305)

The interests paid for credit operations were \$ 766,640 (2016: \$ 851,456).

Net loss (profit) per difference in change was \$ 59,255 (2016: \$ 268,555).

The information of the issued bonds is the following:

| Subserie            | Original currency | Initial date | Term | Nominal interest rate | 2017   |                  |                      | 2016             |        |                  | Amount               |                  |                  |                  |                  |                  |                  |                  |
|---------------------|-------------------|--------------|------|-----------------------|--------|------------------|----------------------|------------------|--------|------------------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                     |                   |              |      |                       | IRR    | Nominal value    | Amortized cost value | Total amount     | IRR    | Nominal value    | Amortized cost value | Total amount     | Amount 2017      | Amount 2016      | Amount 2015      | Amount 2014      | Amount 2013      | Amount 2012      |
| A10a                | COP               | 20/11/2008   | 10   | IPC + 7.12%           | 10,49% | 174.410          | 3.563                | 177.973          | 12,71% | 174.410          | 4.553                | 178.963          | 174.410          | 174.410          | 174.410          | 174.410          | 174.410          | 174.410          |
| A10a                | COP               | 22/01/2009   | 10   | IPC + 5.8%            | 10,25% | 138.600          | 2.447                | 141.047          | 12,39% | 138.600          | 2.321                | 140.921          | 138.600          | 138.600          | 138.600          | 138.600          | 138.600          | 138.600          |
| A10a                | COP               | 5/12/2013    | 10   | IPC + 4.52%           | 9,10%  | 96.210           | (529)                | 95.681           | 11,12% | 96.210           | (881)                | 95.329           | 96.210           | 96.210           | 96.210           | 96.210           | 96.210           | -                |
| A10a                | COP               | 20/03/2015   | 10   | IPC + 4.52%           | 8,94%  | 130.000          | 192                  | 130.192          | 10,94% | 130.000          | (175)                | 129.825          | 130.000          | 130.000          | 130.000          | 130.000          | 130.000          | -                |
| A12a                | COP               | 14/12/2010   | 12   | IPC + 4.2%            | 8,74%  | 119.900          | 113                  | 120.013          | 10,67% | 119.900          | (377)                | 119.523          | 119.900          | 119.900          | 119.900          | 119.900          | 119.900          | 119.900          |
| A12a                | COP               | 30/07/2014   | 12   | IPC + 4.17%           | 8,70%  | 125.000          | 42                   | 125.042          | 10,73% | 125.000          | (290)                | 124.710          | 125.000          | 125.000          | 125.000          | 125.000          | 125.000          | -                |
| A12a                | COP               | 20/03/2015   | 12   | IPC + 3.92%           | 8,25%  | 120.000          | (67)                 | 119.933          | 10,22% | 120.000          | (356)                | 119.644          | 120.000          | 120.000          | 120.000          | -                | -                | -                |
| A15a                | COP               | 21/04/2009   | 15   | IPC + 6.24%           | 10,55% | 198.400          | 4.374                | 202.774          | 12,60% | 198.400          | 4.399                | 202.799          | 198.400          | 198.400          | 198.400          | 198.400          | 198.400          | 198.400          |
| A20a                | COP               | 14/12/2010   | 20   | IPC + 4.94%           | 9,37%  | 267.400          | (57)                 | 267.343          | 11,33% | 267.400          | (788)                | 266.612          | 267.400          | 267.400          | 267.400          | 267.400          | 267.400          | 267.400          |
| A20a                | COP               | 5/12/2013    | 20   | IPC + 5.03%           | 9,54%  | 229.190          | (1.819)              | 227.371          | 11,55% | 229.190          | (2.393)              | 226.797          | 229.190          | 229.190          | 229.190          | 229.190          | 229.190          | -                |
| A20a                | COP               | 30/07/2014   | 20   | IPC + 4.5%            | 8,99%  | 250.000          | (191)                | 249.809          | 11,01% | 250.000          | (723)                | 249.277          | 250.000          | 250.000          | 250.000          | 250.000          | -                | -                |
| A20a                | COP               | 20/03/2015   | 20   | IPC + 4.43%           | 8,86%  | 260.000          | 367                  | 260.367          | 10,78% | 260.000          | (446)                | 259.554          | 260.000          | 260.000          | 260.000          | -                | -                | -                |
| A5a                 | COP               | 5/12/2013    | 5    | IPC + 3.82%           | 8,55%  | 41.880           | 83                   | 41.963           | 10,71% | 41.880           | (186)                | 41.694           | 41.880           | 41.880           | 41.880           | 41.880           | 41.880           | -                |
| A5a                 | COP               | 20/03/2015   | 5    | IPC + 2.72%           | 7,11%  | 120.000          | (102)                | 119.898          | 9,12%  | 120.000          | (519)                | 119.481          | 120.000          | 120.000          | 120.000          | -                | -                | -                |
| A6a                 | COP               | 30/07/2014   | 6    | IPC + 3.57%           | 8,31%  | 125.000          | 322                  | 125.322          | 10,31% | 125.000          | 57                   | 125.057          | 125.000          | 125.000          | 125.000          | 125.000          | -                | -                |
| C10a                | COP               | 22/01/2009   | 10   | 10.8%                 | 10,79% | 74.700           | 7.564                | 82.264           | 10,81% | 74.700           | 7.566                | 82.266           | 74.700           | 74.700           | 74.700           | 74.700           | 74.700           | 74.700           |
| C10a                | COP               | 20/11/2008   | 10   | 13.8%                 | 13,79% | 58.000           | 853                  | 58.853           | 13,79% | 58.000           | 857                  | 58.857           | 58.000           | 58.000           | 58.000           | 58.000           | 58.000           | 58.000           |
| International bonus | USD               | 29/07/2009   | 10   | 7.63%                 | 8,17%  | 1.492.000        | 39.894               | 1.531.894        | 8,16%  | 1.500.355        | 35.420               | 1.535.775        | 1.492.000        | 1.500.355        | 1.574.735        | 1.196.230        | 963.415          | 884.115          |
| International bonus | COP               | 31/01/2011   | 10   | 8.38%                 | 8,69%  | 1.250.000        | 85.144               | 1.335.144        | 8,70%  | 1.250.000        | 82.054               | 1.332.054        | 1.250.000        | 1.250.000        | 1.250.000        | 1.250.000        | 1.250.000        | 1.250.000        |
| International bonus | COP               | 10/09/2014   | 10   | 7.63%                 | 7,73%  | 965.745          | 16.659               | 982.404          | 7,73%  | 965.745          | 16.169               | 981.914          | 965.745          | 965.745          | 965.745          | 965.745          | -                | -                |
| International bonus | COP               | 8/11/2017    | 10   | 8.38%                 | 8,46%  | 2.300.000        | 13.925               | 2.313.925        | 0,00%  | -                | -                    | -                | 2.300.000        | -                | -                | -                | -                | -                |
| <b>Total</b>        |                   |              |      |                       |        | <b>8.536.435</b> | <b>172.780</b>       | <b>8.709.215</b> |        | <b>6.244.790</b> | <b>146.261</b>       | <b>6.391.051</b> | <b>8.536.435</b> | <b>6.244.790</b> | <b>6.319.170</b> | <b>5.440.665</b> | <b>3.742.105</b> | <b>3.165.525</b> |

## Debt covenant / EBITDA

EPM has active a financial covenant, measured in the ratio long term financial debt to EBITDA, calculated on the basis of the consolidated figures of the EPM Group, of maximum 3.5 times, in the credit contracts: French Development Agency - AFD, Inter-American Development Bank - BID 1664, and Guarantee from Japan Bank for International Cooperation -JBIC a credit with the Japanese commercial bank. In addition, it has agreed this credit, but inactive, due to the double degree of investment, in the international bond issue with expiration in 2019.

As of December 2017 the result of the indicator was of 3.43 times. EPM must report the compliance of this indicator as follows: to the Japan Bank for International Cooperation (JBIC), quarterly, to the French Development Agency -AFD-, semiannually and to the Inter-American Development Bank (IDB), annually.

## Non-compliance

During the accounting period, the EPM Group has not failed the payment of the principal and the interest of its loans.

## Nota 21. Creditors and other accounts payable

Creditors and other accounts payable consist of:

| Creditors and other accounts payable                          | 2017             | 2016           |
|---------------------------------------------------------------|------------------|----------------|
| <b>Non-current</b>                                            |                  |                |
| Adquisition of goods and services                             | 628              | 628            |
| Deposits received under guarantee                             | 37               | 39             |
| Resources received in administration                          | 8.635            | 21.606         |
| Construction contracts                                        | 6.653            | 8.002          |
| <b>Total creditors and other non-current accounts payable</b> | <b>15.953</b>    | <b>30.275</b>  |
| <b>Current</b>                                                |                  |                |
| Creditors <sup>1</sup>                                        | 731.104          | 277.123        |
| Adquisition of goods and services                             | 591.525          | 512.288        |
| Assigned grants                                               | 2.542            | 3.795          |
| Deposits received under guarantee                             | 310              | 311            |
| Advances and advances received recibidos                      | 506              | 507            |
| Resources received in administration                          | 36.429           | 17.963         |
| Other accounts payable                                        | 762              | 24.670         |
| Construction contracts                                        | (1.514)          | 24.808         |
| Commissions payable                                           | 2.110            | 2.110          |
| <b>Total creditors and other accounts payable current</b>     | <b>1.363.774</b> | <b>863.575</b> |
| <b>Total creditors and other accounts payable</b>             | <b>1.379.727</b> | <b>893.850</b> |

- Amounts expressed in millions of Colombian pesos -

<sup>1</sup> Includes financial surpluses payable to the Municipality of Medellín for \$ 300,000 for the sale of ISAGEN shares.

The term for the payment to suppliers is generally 30 calendar days, with exceptions that are documented in the processes and determined, among others, by the type of obligation and contract.

## Non-compliance

During the accounting period, the Group has not failed in the payment to its creditors or suppliers.

## Nota 22. Other financial liabilities

The other financial liabilities consist of:

| Other financial liabilities                                     | 2017           | 2016           |
|-----------------------------------------------------------------|----------------|----------------|
| <b>Non-Current</b>                                              |                |                |
| Financial leases (See note 13)                                  | 195.329        | 196.308        |
| Pension bonds <sup>(1)</sup>                                    | 270.413        | 282.253        |
| Derivatives that are not under accounting hedge                 | 3.592          | -              |
| Derivatives for the purpose of hedging cash flows (see note 23) | 18.913         | 2.032          |
| <b>Total other non-current financial liabilities</b>            | <b>488.247</b> | <b>480.593</b> |
| <b>Current</b>                                                  |                |                |
| Financial leases (See note 13)                                  | 979            | 906            |
| Pension bonds <sup>(1)</sup>                                    | 264.266        | 234.693        |
| Derivatives that are not under accounting hedge                 | 10.269         | -              |
| Derivatives for the purpose of hedging cash flows (see note 23) | 33.367         | 68.919         |
| <b>Total other current financial liabilities</b>                | <b>308.881</b> | <b>304.518</b> |
| <b>Total other financial liabilities</b>                        | <b>797.128</b> | <b>785.111</b> |

*Amounts expressed in millions of Colombian pesos -*

Conventional purchases and sales of financial liabilities are accounted for by applying the trading date.

<sup>1</sup>The variation was explained by the amortized cost and the payments made during the period.

### 22.1 Non-compliance

During the accounting period, the EPM Group has not failed in the payment of the principal and interests of its loans.

## Nota 23. Derivatives and hedge accounting



| Hedging Classification   | Description         | Risk Covered                                                         | Trench                                | Item Covered                          | Carrying amount of item covered | Carrying amount of hedging instrument | Changes in fair value of hedging instrument in the period | Changes in fair value of item covered in the period | Inefficacy of hedging recognized in the profit and loss of period | Efficacy of hedging recognized in other comprehensive income | Reclassification of other comprehensive income to profit and loss for the period <sup>1</sup> |
|--------------------------|---------------------|----------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------|---------------------------------------|-----------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Cash flow hedging</b> |                     |                                                                      |                                       |                                       |                                 |                                       |                                                           |                                                     |                                                                   |                                                              |                                                                                               |
| Swaps                    | Cross Currency Swap | Exchange rate USD/COP and interest rate Libor/ fixed of debt service | Part of the Club Deal and AFD credits | Credit in U.S. dollars                | 1.552.345                       | 38.131                                | 52.076                                                    | 4.294                                               | N.A                                                               | 52.076                                                       | 3.865                                                                                         |
| Futures                  | Derivex             | Sale price in energy exchange                                        | N.A                                   | Sales of Energy highly probable entry | N.A                             | 97                                    | 12.462                                                    | N.A                                                 | N.A                                                               | 12.462                                                       | 12.384                                                                                        |

- Amounts expressed in millions of Colombian pesos -

<sup>1</sup> The reclassification from other comprehensive Income to profit and loss for the period, for swap instruments affected the item of interests, exchange difference, exchange difference of interest and of capital of the right; and for instruments of forward contracts it affected the item of sales of energy in the exchange. Additionally, were capitalized \$72,115 as costs for loans mainly to the Ituango project.

### Cash flow hedge

The characteristics of the main cash flow hedging instruments that are under hedge accounting are the following:

| <b>Characteristics</b> |                         |                         |                               |                     |                     |                         |                         |                         |                         |                         |  |
|------------------------|-------------------------|-------------------------|-------------------------------|---------------------|---------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--|
| Underlying covered     | Club Deal credit        | Club Deal credit        | Club Deal credit              | Club Deal credit    | Crédito Club Deal   | AFD Credit              | AFD Credit              | AFD Credit              | AFD Credit              | AFD Credit              |  |
| Trench No.             | 2                       | 3                       | 8                             | 9                   | 12                  | 1                       | 2                       | 3                       | 4                       | 5                       |  |
| Closing date           | 24-may-16               | 26-may-16               | 20-jun-16                     | 8-jul-16            | 8-ago-16            | 3-feb-17                | 6-feb-17                | 10-feb-17               | 24-mar-17               | 30-mar-17               |  |
| Type Derivative        | CCS                     | CCS                     | CCS                           | CCS                 | CCS                 | CCS                     | CCS                     | CCS                     | CCS                     | CCS                     |  |
| Counterpart            | JP Morgan               | JP Morgan               | Bank of America Merrill Lynch | BNP Paribas         | BNP Paribas         | BNP Paribas             | BNP Paribas             | BNP Paribas             | CITI BANK               | CITI BANK               |  |
| Nominal (USD)          | 50.000.000              | 50.000.000              | 60.000.000                    | 40.000.000          | 30.000.000          | 64.750.000              | 47.381.250              | 85.312.500              | 13.164.375              | 85.312.500              |  |
| Spot exchange rate     | 3.058                   | 3.053                   | 2.976                         | 2.965               | 2.990               | 2.850                   | 2.855                   | 2.850                   | 2.899                   | 2.878                   |  |
| Obligation (COP)       | 152.900.000.000         | 152.650.000.000         | 178.560.000.000               | 118.600.000.000     | 89.700.000.000      | 184.537.500.000         | 135.273.468.750         | 243.140.625.000         | 38.163.523.125          | 245.529.375.000         |  |
| EPM pays               | IBR + 2.17              | IBR + 2.17              | 9,30%                         | 8,42%               | 8,44%               | IBR + 0,83              | IBR + 0,33              | IBR + 0,69              | IBR + 0,379             | IBR + 0,479             |  |
|                        | IBR OIS compuesta 1 día | IBR OIS compuesta 1 día |                               |                     |                     | IBR OIS compuesta 1 día | IBR OIS compuesta 1 día | IBR OIS compuesta 1 día | IBR OIS compuesta 1 día | IBR OIS compuesta 1 día |  |
| EPM receives           | LIBOR 6 meses + 140     | LIBOR 6 meses + 140     | LIBOR 6 meses + 140           | LIBOR 6 meses + 140 | LIBOR 6 meses + 140 | Tasa fija 4,50%         | Tasa fija de 4,04%      | Tasa fija de 4,32%      | Tasa fija de 4,25%      | Tasa fija de 4,32%      |  |
| Maturity date          | 29-dic-20               | 29-dic-20               | 29-dic-20                     | 29-dic-20           | 29-dic-20           | 31-jul-22               | 31-jul-22               | 31-jul-22               | 31-jul-22               | 31-jul-22               |  |
| Initial exchange       | No                      | No                      | No                            | No                  | No                  | No                      | No                      | No                      | No                      | No                      |  |
| Final exchange         | Si                      | Si                      | Si                            | Si                  | Si                  | No                      | No                      | No                      | No                      | No                      |  |
| Modality               | Non Delivery            | Non Delivery            | Non Delivery                  | Non Delivery        | Non Delivery        | Non Delivery            | Non Delivery            | Non Delivery            | Non Delivery            | Non Delivery            |  |

The company had previously accounted under hedge accounting the cash flow of two swap instruments for \$13,856 (2016: \$10,799), which are no longer expected to occur since the underlying risk was cancelled. Therefore, the company has reclassified \$1,628 (2016: \$-) from loss recognized in other comprehensive income to profit and loss for the period. These instruments have not been paid and are classified as financial instruments measured at fair value.

### Advance termination of the hedge

The company had previously accounted under hedge accounting the cash flow of six swap instruments for \$19,743 in 2016 which are no longer expected to occur since the underlying risk was cancelled. Therefore, the company has reclassified \$6,354 (2016: \$-) from profit recognized in other comprehensive result to profit and loss for the period. These instruments were cancelled in 2017. The characteristics of the cancelled operations are the following:

| Caracteristics                         | Trench 4                      | Trench 5                | Trench 6                      | Trench 7                | Trench 10           | Trench 13         |
|----------------------------------------|-------------------------------|-------------------------|-------------------------------|-------------------------|---------------------|-------------------|
| Date                                   | 3-jun-16                      | 3-jun-16                | 7-jun-16                      | 8-jun-16                | 12-jul-16           | 16-may-17         |
| Underlying covered                     | Crédito Club Deal             | Crédito Club Deal       | Crédito Club Deal             | Crédito Club Deal       | Crédito Club Deal   | Crédito Club Deal |
| Type of derivative                     | CCS                           | CCS                     | CCS                           | CCS                     | CCS                 | CCS               |
| Counterpart                            | Bank of America Merrill Lynch | JP Morgan               | Bank of America Merrill Lynch | JP Morgan               | BNP Paribas         | BNP Paribas       |
| Nominal (USD)                          | 50.000.000                    | 50.000.000              | 50.000.000                    | 50.000.000              | 50.000.000          | 50.000.000        |
| Spot exchange rate                     | \$ 3.025                      | \$ 2.997                | \$ 2.945                      | \$ 2.907                | \$ 2.907            | \$ 2.867          |
| Obligation (COP)                       | 151.250.000.000               | 149.850.000.000         | 147.250.000.000               | 145.350.000.000         | 145.350.000.000     | 143.350.000.000   |
| EPM pays                               | IBR + 2.16                    | IBR + 2.20              | IBR + 2.25                    | IBR + 2.19              | 8,55%               | 6,09%             |
|                                        | IBR OIS compuesta 1 día       | IBR OIS compuesta 1 día | IBR OIS compuesta 1 día       | IBR OIS compuesta 1 día | -                   | -                 |
| EPM receives                           | LIBOR 6 meses + 140           | LIBOR 6 meses + 140     | LIBOR 6 meses + 140           | LIBOR 6 meses + 140     | LIBOR 6 meses + 140 | LIBOR 6 meses     |
| Periodicity                            | Semestral                     | Semestral               | Semestral                     | Semestral               | Semestral           | Semestral         |
| Maturity date                          | 29-dic-20                     | 29-dic-20               | 29-dic-20                     | 29-dic-20               | 29-dic-20           | 29-dic-20         |
| Initial exchange                       | No                            | No                      | No                            | No                      | No                  | No                |
| Final exchange                         | Si                            | Si                      | Si                            | Si                      | Si                  | Si                |
| Cancellation date                      | 12-dic-17                     | 12-dic-17               | 11-dic-17                     | 7-dic-17                | 12-dic-17           | 15-nov-17         |
| Cancellation exchange rate             | \$ 3.030                      | \$ 3.020                | \$ 3.016                      | \$ 3.015                | \$ 3.030            | \$ 3.020          |
| EPM (Pays / Receives)                  | Paga                          | Paga                    | Paga                          | Recibe                  | Paga                | Paga              |
| Value of the settlement reported (USD) | 2.060.000                     | 1.718.700               | 810.000                       | 71.000                  | 2.338.860           | 100.070           |

\* CCS : Cross Currency Swap

## Implicit derivatives

The Company has not formalized contracts that contain implicit derivatives.

## Nota 24. Changes in liabilities for financing activities

The conciliation of the liabilities that arise from the financing activities is as follows:

| Reconciliation of the financing activities 2017              | Initial balance   | Cash flows     | Changes other than cash   |                | Other changes <sup>1</sup> | Total             |
|--------------------------------------------------------------|-------------------|----------------|---------------------------|----------------|----------------------------|-------------------|
|                                                              |                   |                | Foreign currency movement | Fair Value     |                            |                   |
| Long-term credits and loans (See note 20)                    | 9.532.101         | 3.782.524      | 39.997                    | -              | (2.892.135)                | 10.462.487        |
| Short-term credits and loans (See note 20)                   | 1.288.588         | (2.269.889)    | 19.259                    | -              | 2.946.885                  | 1.984.843         |
| Liabilities for leases (See notes 12 and 22)                 | 197.214           | (906)          | -                         | -              | -                          | 196.308           |
| Derivative and hedging instruments (See notes 12, 22 and 23) | 70.933            | (12.384)       | -                         | 126.209        | (132.864)                  | 51.895            |
| Dividends or surplus paid (See note 18)                      | -                 | (1.309.136)    | -                         | -              | 1.609.136                  | 300.000           |
| <b>Total pasivos por actividades de financiación</b>         | <b>11.088.836</b> | <b>190.209</b> | <b>59.256</b>             | <b>126.209</b> | <b>1.531.022</b>           | <b>12.995.532</b> |

Amounts expressed in millions of Colombian pesos -

| Reconciliation of the financing activities 2016              | Initial balance   | Cash flows       | Changes other than cash   |               | Other changes <sup>1</sup> | Total             |
|--------------------------------------------------------------|-------------------|------------------|---------------------------|---------------|----------------------------|-------------------|
|                                                              |                   |                  | Foreign currency movement | Fair Value    |                            |                   |
| Long-term credits and loans (See note 20)                    | 7.012.001         | 1.987.929        | (235.616)                 | -             | 767.786                    | 9.532.101         |
| Short-term credits and loans (See note 20)                   | 3.886.347         | (1.766.059)      | (32.930)                  | -             | (798.770)                  | 1.288.588         |
| Liabilities for leases (See notes 12 and 22)                 | 198.045           | (831)            | -                         | -             | -                          | 197.214           |
| Derivative and hedging instruments (See notes 12, 22 and 23) | (11.776)          | (1)              | -                         | 82.710        | -                          | 70.933            |
| Dividends or surplus paid (See note 18)                      | -                 | (816.521)        | -                         | -             | 816.521                    | -                 |
| <b>Total pasivos por actividades de financiación</b>         | <b>11.084.617</b> | <b>(595.482)</b> | <b>(268.546)</b>          | <b>82.710</b> | <b>785.537</b>             | <b>11.088.836</b> |

Amounts expressed in millions of Colombian pesos -

<sup>1</sup> Includes the interests paid during the year for \$ 853,437 (2016: \$ 851,456), which are classified according to the Company's policy as operating activities in the statement of cash flow; the variation in the measurement at amortized cost of credits and loans \$ 784,976 (2016: \$ 822,308); credits to economic associates for \$ 36,414 (2016: \$ -), which are classified as investment activities in the statement of cash flow; and the dividends caused and not paid during the year.

## Nota 25. Employee benefits

The item of employee benefits recognized at the cut-off date, presents the following composition:

| Employee benefits                          | 2017           | 2016           |
|--------------------------------------------|----------------|----------------|
| <b>Non-Current</b>                         |                |                |
| Post-employment benefits                   | 243.726        | 219.509        |
| Long Term Benefits                         | 38.971         | 35.375         |
| <b>Total non-current employee benefits</b> | <b>282.697</b> | <b>254.884</b> |
| <b>Current</b>                             |                |                |
| Short-term benefits                        | 83.726         | 72.166         |
| Post-employment benefits                   | 48.091         | 44.459         |
| <b>Total benefits to current employees</b> | <b>131.817</b> | <b>116.625</b> |
| <b>Total</b>                               | <b>414.514</b> | <b>371.509</b> |

- Amounts expressed in millions of Colombian pesos

## 25.1 Post- employment benefits

It covers the defined benefit plans and the defined contributions plans detailed below:

### 25.1.1. Defined benefit plans

| Defined benefits plans                                | Pensions <sup>1</sup> |                | Retroactive severances <sup>2</sup> |               | Educational Assistance Plan <sup>3</sup> |            | Total          |                |
|-------------------------------------------------------|-----------------------|----------------|-------------------------------------|---------------|------------------------------------------|------------|----------------|----------------|
|                                                       | 2017                  | 2016           | 2017                                | 2016          | 2017                                     | 2016       | 2017           | 2016           |
| <b>Present value of defined benefit obligations</b>   |                       |                |                                     |               |                                          |            |                |                |
| Beginning balance                                     | 444.543               | 410.899        | 92.609                              | 84.275        | 104                                      | 151        | 537.256        | 495.325        |
| Cost of the present servicee                          | -                     | -              | 3.452                               | 3.264         | -                                        | -          | 3.452          | 3.264          |
| Interest income or (expense)                          | 29.938                | 30.274         | 6.387                               | 6.025         | 5                                        | 7          | 36.330         | 36.306         |
| Assumptions by experience                             | 13.479                | 17.486         | 1.313                               | 7.513         | (7)                                      | (17)       | 14.785         | 24.982         |
| Financial Assumptions                                 | 5.700                 | 22.634         | 5.445                               | 1.672         | -                                        | -          | 11.145         | 24.306         |
| Payments made by the plan <sup>4</sup>                | (47.428)              | (37.089)       | (9.858)                             | (10.140)      | (31)                                     | (37)       | (57.317)       | (47.266)       |
| Other changes                                         | 65                    | 339            | -                                   | -             | -                                        | -          | 65             | 339            |
| <b>Present value of obligation as of 31, december</b> | <b>446.297</b>        | <b>444.543</b> | <b>99.348</b>                       | <b>92.609</b> | <b>71</b>                                | <b>104</b> | <b>545.716</b> | <b>537.256</b> |
| <b>Fair value of plan assets</b>                      |                       |                |                                     |               |                                          |            |                |                |
| Beginning balance                                     | 273.288               | 284.322        | -                                   | -             | -                                        | -          | 273.288        | 284.322        |
| Payments made by the plan <sup>4</sup>                | (44.746)              | (44.502)       | -                                   | -             | -                                        | -          | (44.746)       | (44.502)       |
| Interest income                                       | 18.160                | 20.654         | -                                   | -             | -                                        | -          | 18.160         | 20.654         |
| Expected plan yield (excluding interest income)       | 7.197                 | 12.814         | -                                   | -             | -                                        | -          | 7.197          | 12.814         |
| <b>Fair value of plan assets as of December 31</b>    | <b>253.899</b>        | <b>273.288</b> | <b>-</b>                            | <b>-</b>      | <b>-</b>                                 | <b>-</b>   | <b>253.899</b> | <b>273.288</b> |
| <b>Surplus of the defined benefit plan</b>            | <b>192.398</b>        | <b>171.255</b> | <b>99.348</b>                       | <b>92.609</b> | <b>71</b>                                | <b>104</b> | <b>291.817</b> | <b>263.968</b> |
| <b>Net liabilities of the defined benefit plan</b>    | <b>192.398</b>        | <b>171.255</b> | <b>99.348</b>                       | <b>92.609</b> | <b>71</b>                                | <b>104</b> | <b>291.817</b> | <b>263.968</b> |
| <b>Total defined benefits</b>                         | <b>192.398</b>        | <b>171.255</b> | <b>99.348</b>                       | <b>92.609</b> | <b>71</b>                                | <b>104</b> | <b>291.817</b> | <b>263.968</b> |

<sup>1</sup>Includes a retirement pensions plan recognized prior to the validity of the General Pension System of Law 100 of 1993 with their respective substitutions, which are distributed in the actuarial calculation by groups differentiating the life annuities, the ones shared with Colpensiones, the pension substitutions and those that generate a pension share. The plan is made up of EPM retirees and retirees belonging to the pension commutation for the liquidation of the Empresa Antioqueña De Energía EADE. Includes contributions to social security and funeral assistance. Retirement pensions are legal under the parameters of Law 6 of 1945 and Law 33 of 1985. No risks have been identified for EPM, generated by the plan. During the period, the plans have not undergone modifications, reductions or liquidations that represent a reduction in the present value of the obligation.

<sup>2</sup>Includes a plan for retroactive severance pay; it is a post-employment benefit that applies approximately to the 8.5% of EPM employees and consists in the recognition of an average monthly salary multiplied by the

number of years of service, payable through advances and at the time of termination of the contract. The source that gives rise to the plan is the “Sixth Law of 1945 whereby some provisions are issued on labor conventions, professional associations, collective conflicts and special work jurisdiction” and National Decree 1160 of 1989, whereby Law 71 of 1988 is partially regulated, and whereby rules are issued on pensions and other provisions are issued. For the retroactive severance plan, neither possible risks nor significant changes are identified during the period.

<sup>3</sup>Includes an educational aid plan that is granted for each of the children of the EPM retirees, with the right to it, includes aid for secondary, technical or university studies. It has its origin in Article 9 of Law 4 of 1976, by which rules are issued on pension matters of the public, official, semi-official and private sectors and provides that companies or employers will grant scholarships or grants for secondary, technical or university students, to the children of their retired staff, under the same conditions as those granted or established for the children of active workers.

The weighted average of the duration in years, of the obligations by defined benefit plans at the report date, is presented below:

| Benefits                        | 2017 |      | 2016 |      |
|---------------------------------|------|------|------|------|
|                                 | From | To   | From | To   |
| Pension                         | 8,6  | 11,4 | 8,7  | 11,4 |
| EPM Educational Assistance Plan | 1,7  | 1,7  | 1,6  | 1,6  |
| Retroactive layoffs             | 6,6  | 6,6  | 7,1  | 7,1  |

<sup>4</sup>Includes \$ 57,317 (2016: \$ 47,266) for values paid by plan liquidations.

The company has no restrictions over the current realization of the defined benefit plan surplus.

The company did not make contributions for defined benefits during 2017, and does not expect to make contributions for the next annual period.

The fair value of the assets of the plan is composed as follows:

| Assets that support the plan              | 2017            |                | 2016            |                |
|-------------------------------------------|-----------------|----------------|-----------------|----------------|
|                                           | % participation | Fair value     | % participation | Fair value     |
| Cash and cash equivalents                 | 2,24%           | 5.676          | 1,6%            | 4.281          |
| <b>Debt instruments</b>                   |                 |                |                 |                |
| AAA                                       | 84,26%          | 213.934        | 88,5%           | 241.894        |
| AA                                        | 9,74%           | 24.720         | 5,6%            | 15.282         |
| A                                         | 0,00%           | -              | 0,6%            | 1.773          |
| Investment funds <sup>(1)</sup>           | 3,77%           | 9.569          | 3,7%            | 10.058         |
| <b>Total debt instruments</b>             | <b>97,76%</b>   | <b>248.223</b> | <b>98,4%</b>    | <b>269.007</b> |
| <b>Total assets that support the plan</b> | <b>100%</b>     | <b>253.899</b> | <b>100%</b>     | <b>273.288</b> |

*Amounts expressed in millions of Colombian pesos -*

<sup>1</sup> It comprises a collective investment fund with a conservative profile, with immediate availability of resources called Rentaliquida, managed by Fiduciaria Davivienda, with a balance of \$ 3,449 and a Exchange Trade Fund (ETF), which follows the Colcap behavior, with a balance of \$ 3,449.

The main actuarial assumptions used to determine the obligations under the defined benefit plans are as follows:

| Assumptions                               | Concepto                  |             |
|-------------------------------------------|---------------------------|-------------|
|                                           | 2017                      | 2016        |
| Discount rate (%)                         | 5.40 - 7.10               | 5.80 - 7.3  |
| Annual salary increase rate (%)           | 4.00 - 4.70               | 4.00 - 7.09 |
| Real rate of return on plans assets       | 5,76                      | 6,5         |
| Rate of future increase in annual pension | 3,50                      | 3.50 - 5.89 |
| Annual inflation rate (%)                 | 3,50                      | 3.50 - 5.89 |
| Mortality rate tables                     | Valid rentiers table 2008 |             |

The following table shows the effect of a variation of more than 1% and less than 1% in the salary increase, in the discount rate and in the increase in the benefit over the obligation for post-employment defined benefit plans:

| Assumptions                         | Increase in the discount rate by +1% | Decrease in the discount rate by -1% | Increase in salary increase by +1% | Decrease in salary increase by -1% | Increase in benefit incrementation by +1% | Decrease in benefit incrementation by -1% |
|-------------------------------------|--------------------------------------|--------------------------------------|------------------------------------|------------------------------------|-------------------------------------------|-------------------------------------------|
| Pension EPM                         | 309.113                              | 362.964                              | -                                  | -                                  | -                                         | -                                         |
| Social security contributions EPM   | 25.868                               | 30.142                               | -                                  | -                                  | -                                         | -                                         |
| Educational assistance EPM          | 70                                   | 72                                   | -                                  | -                                  | 72                                        | 70                                        |
| Pension EADE                        | 75.850                               | 93.773                               | -                                  | -                                  | -                                         | -                                         |
| Social security contributions EADE  | 1.665                                | 1.972                                | -                                  | -                                  | -                                         | -                                         |
| Retroactive layoffs                 | 93.903                               | 105.316                              | 108.932                            | 90.425                             | -                                         | -                                         |
| <b>Total beneficios Post-empleo</b> | <b>506.469</b>                       | <b>594.239</b>                       | <b>108.932</b>                     | <b>90.425</b>                      | <b>72</b>                                 | <b>70</b>                                 |

- Amounts expressed in millions of Colombian pesos -

The methods and assumptions used to prepare the sensitivity analysis of the Present Value of the Obligations (DBO - Defined Benefit Obligations) was made using the same methodology that for the actuarial calculation as of December 31, 2017: Projected Unit Credit (PUC) method. The sensibility does not present neither limitations nor changes in the methods or assumptions used to prepare the analysis of the current period

#### Calculation of pension liabilities and pension commutations according to fiscal requirements

Resolution 037 of 2017 issued by the General Accounting Office of the Nation established the obligation to disclose the calculation of pension liabilities in accordance with the parameters established in Decree 1625 of 2016 and Decree 1833 for pension liability transfers; therefore, the figures presented below do not correspond to the IFRS requirements.

#### Pension liabilities

The actuarial calculation of pensions was prepared with the following technical bases:

| Actuarial assumptions - Pension obligation | 2017                 | 2016 |
|--------------------------------------------|----------------------|------|
| Real technical interest rate               | 4,8                  | 4,8  |
| Salary increase rate                       | 5,74                 | 4,93 |
| Pension increase rate                      | 5,74                 | 4,93 |
| Mortality rate table                       | Valid Rentistas 2008 |      |

The following table is the calculation of the pension liabilities with the previous parameters:

| Item                                                           | 2017             |                  | 2016             |                  |
|----------------------------------------------------------------|------------------|------------------|------------------|------------------|
|                                                                | Number of people | Obligation value | Number of people | Obligation value |
| Personnel pensioned entirely by the companies of the EPM Group | 670              | 162.821          | 690              | 160.097          |
| Personnel retired with pension shared with Colpensiones        | 375              | 54.553           | 393              | 54.450           |
| Personnel benefit shared with Colpensiones                     | 466              | 62.486           | 467              | 60.680           |
| Personnel retired with pension shared with other entities      | 300              | 45.040           | 322              | 44.667           |
| <b>Total</b>                                                   | <b>1.811</b>     | <b>324.900</b>   | <b>1.872</b>     | <b>319.894</b>   |

Indicate level of rounding and presentation currency -

The following are the pension bonuses related with the pension obligations:

| Concepto                             | 2017             |                | 2016             |                |
|--------------------------------------|------------------|----------------|------------------|----------------|
|                                      | Number of people | Reserve value  | Number of people | Reserve value  |
| Retirement payment type A modality 1 | 250              | 2.399          | 252              | 2.236          |
| Retirement payment type A modality 2 | 4.284            | 169.374        | 4.329            | 161.493        |
| Retirement payment type B            | 2.506            | 319.937        | 2.605            | 317.052        |
| Retirement payment type T            | 5                | 393            | 5                | 445            |
| Other - Contributions Law 549        | 178              | 4.636          | 175              | 4.203          |
| <b>Difference</b>                    | <b>7.223</b>     | <b>496.739</b> | <b>7.366</b>     | <b>485.429</b> |

- Amounts expressed in millions of Colombian pesos -

Below, the differences between the pension liabilities calculated under IFRS and the fiscal pension liabilities are shown:

|                                | 2017             | 2016             |
|--------------------------------|------------------|------------------|
| Pension liabilities under IFRS | 361.986          | 361.012          |
| Fiscal pension liabilities     | 821.638          | 805.322          |
| <b>Difference</b>              | <b>(459.652)</b> | <b>(444.310)</b> |

- Amounts expressed in millions of Colombian pesos -

### Pension commutations liabilities

The actuarial calculation of pension commutation was prepared with the following technical bases:

| Actuarial assumptions - Pension change | 2017                 | 2016 |
|----------------------------------------|----------------------|------|
| Real technical interest rate           | 4,8                  | 4,8  |
| Salary increase rate                   | 5,74                 | 4,93 |
| Pension increase rate                  | 5,74                 | 4,93 |
| Mortality rate table                   | Valid Rentistas 2008 |      |

The following table is the calculation of the pension switching with the previous parameters:

| Concept                                                        | 2017             |                  | 2016             |                  |
|----------------------------------------------------------------|------------------|------------------|------------------|------------------|
|                                                                | Number of people | Obligation value | Number of people | Obligation value |
| Personnel pensioned entirely by the companies of the EPM Group | 151              | 31.288           | 157              | 31.698           |
| Personnel retired with pension shared with Colpensiones        | 312              | 35.451           | 305              | 32.600           |
| Personnel benefit shared with Colpensiones                     | 31               | 2.435            | 34               | 2.390            |
| Personnel retired with pension shared with other entities      | 44               | 4.547            | 46               | 4.618            |
| <b>Total</b>                                                   | <b>538</b>       | <b>73.721</b>    | <b>542</b>       | <b>71.305</b>    |

The following are the pension bonuses related to the pension commutation liability:

| Concept                              | 2017             |               | 2016             |               |
|--------------------------------------|------------------|---------------|------------------|---------------|
|                                      | Number of people | Reserve value | Number of people | Reserve value |
| Retirement payment type A modality 1 | 12               | 33            | 12               | 30            |
| Retirement payment type A modality 2 | 267              | 9.787         | 269              | 9.117         |
| Retirement payment type B            | 229              | 21.199        | 236              | 20.849        |
| Retirement payment type T            | 3                | 219           | 3                | 276           |
| Other - Contributions Law 549        | 3                | 101           | 3                | 94            |
| <b>Diferencia</b>                    | <b>514</b>       | <b>31.339</b> | <b>523</b>       | <b>30.366</b> |

- Amounts expressed in millions of Colombian pesos -

The differences between the pension commutation liability calculated under IFRS and the tax pension commutation liability are shown below:

|                                      | 2017            | 2016            |
|--------------------------------------|-----------------|-----------------|
| Passive pension switching under IFRS | 83.972          | 83.290          |
| Pension liability tax commutation    | 105.059         | 101.671         |
| <b>Diferencia</b>                    | <b>(21.087)</b> | <b>(18.381)</b> |

- Amounts expressed in millions of Colombian pesos -

### 25.1.2. Defined contribution plans

The Group made contributions to defined contribution plans for \$53,012 (2016: \$45,354), recognized in the profit or loss of the period as an expense \$14,412 (2016: \$13,253), cost \$28,341 (2016: \$23,938) and investment projects \$10,259 (2016: \$8,163).

### 25.2 Long-term employee benefits



| Long term benefits                                               | Seniority bonus <sup>(1)</sup> |               |
|------------------------------------------------------------------|--------------------------------|---------------|
|                                                                  | 2017                           | 2016          |
| <b>Present value of obligations for other long term benefits</b> |                                |               |
| Beginning balance                                                | 35.375                         | 30.841        |
| Cost of the present service                                      | 3.282                          | 2.824         |
| Interest income or (expense)                                     | 2.454                          | 2.286         |
| Assumptions by experience                                        | 1.838                          | 2.449         |
| Financial assumptions                                            | 965                            | 837           |
| Payments made by the plan                                        | (4.943)                        | (3.863)       |
| <b>Present value of obligations as of December 31</b>            | <b>38.971</b>                  | <b>35.374</b> |
| <b>Net liability for long-term benefits</b>                      | <b>38.971</b>                  | <b>35.374</b> |

- Amounts expressed in millions of Colombian pesos -

For these benefits, the company does not have assets that support the plan.

<sup>1</sup>Includes a plan for seniority premium. It is a long-term benefit granted to employees through the Collective Labor Convention, in EPM it is granted considering the years of continuous or discontinuous service. It is recognized and paid only once in the respective period and in accordance with the established terms: every 5 years will be paid 12, 17, 23, 30, 35 and 40 days of basic salary, respectively, will be paid. For the Premium Antiquity plan, no possible risks are identified.

The weighted average duration in years, of the obligations for long-term benefit plans at the report date, is as follows:

| Benefit         | 2017 |     | 2016 |     |
|-----------------|------|-----|------|-----|
|                 | From | To  | From | To  |
| Seniority bonus | 6,7  | 6,7 | 6,5  | 6,5 |

The Group does not expect to contribute to the plan for the next annual period.

The main actuarial assumptions used to determine the obligations under the long-term employee benefit plans are as follows:

| Assumptions                     | Concept                    |      |
|---------------------------------|----------------------------|------|
|                                 | 2017                       | 2016 |
| Discount rate (%)               | 6,7                        | 7,10 |
| Annual salary increase rate (%) | 4,7                        | 4,70 |
| Real return of plan assets      | %                          | %    |
| Annual future rate of increase  | %                          | %    |
| Annual inflation rate (%)       | 3,5                        | 5,89 |
| Mortality rate table            | Table valid rentistas 2008 |      |

The following table shows the effect of a variation of more than 1% and less 1% in the salary increase, in the discount rate and in the increase in the benefit over the obligation for long-term benefit plans:

| Assumptions                     | Increase in the discount rate by +1% | Decrease in the discount rate by -1% | Increase in salary increase by +1% | Decrease in salary increase by -1% |
|---------------------------------|--------------------------------------|--------------------------------------|------------------------------------|------------------------------------|
| Seniority bonus                 | 36.639                               | 41.596                               | 41.425                             | 36.752                             |
| <b>Total long-term benefits</b> | <b>36.639</b>                        | <b>41.596</b>                        | <b>41.425</b>                      | <b>36.752</b>                      |

- Amounts expressed in millions of Colombian pesos -

The methods and assumptions used to prepare the sensibility analysis of the Present Value of Obligations (DBO - Defined Benefit Obligations) were done using the same methodology as for the actuarial calculation as of December 31, 2017: Forecasted Credit Unit (FCU). The sensibility does not present any limitations, or changes in the methods and assumptions used to prepare the analysis of the current period.

### 25.3 Short-term benefits

The composition of short-term benefits is as follows:

| Beneficios a corto plazo         | 2017          | 2016          |
|----------------------------------|---------------|---------------|
| Payroll payable                  | 7.579         | 8.060         |
| Cessation                        | 31.065        | 25.998        |
| Interest on layoffs              | 3.572         | 3.046         |
| Holidays                         | 13.235        | 11.164        |
| Holiday bonus                    | 26.629        | 22.505        |
| Christmas bonus                  | 36            | 34            |
| Bonuses                          | 1.610         | 1.359         |
| <b>Total short-term benefits</b> | <b>83.726</b> | <b>72.166</b> |

- Amounts expressed in millions of Colombian pesos -

## Nota 26. Taxes, contributions and rates

The detail of taxes, contributions and rates, other than income tax, is as follows:

| Taxes, contribution and fees                | 2017           | 2016          |
|---------------------------------------------|----------------|---------------|
| <b>Current</b>                              |                |               |
| Withholding tax and stamp duty              | 52.316         | 55.591        |
| Unified property tax                        | 132            | -             |
| Tax of industry and commerce                | 16.593         | 20.287        |
| Customs tax and surcharges                  | 10.024         | -             |
| Registration tax                            | -              | 29            |
| Contributions                               | 4.806          | 3.565         |
| Rates                                       | 16.137         | 14.329        |
| National consumption tax                    | 3              | -             |
| Other national taxes                        | 696            | 697           |
| Other municipal taxes                       | 5              | 4             |
| Value added tax                             | 3.366          | 2.970         |
| <b>Total taxes, rates and contributions</b> | <b>104.078</b> | <b>97.472</b> |

Amounts expressed in millions of Colombian pesos -

## Nota 27. Provisiones, activos y pasivos contingentes

### 27.1 Provisions

The reconciliation of provisions is as follows:

| Concept                             | Dismantling or restoration | Onerous contracts | Litigations    | Business combination | Implicit obligations subsidiaries | Other provisions <sup>4</sup> | Total          |
|-------------------------------------|----------------------------|-------------------|----------------|----------------------|-----------------------------------|-------------------------------|----------------|
| Beginning balance                   | 18.111                     | 141.184           | 70.586         | 147.413              | 9.521                             | 43.243                        | 430.058        |
| Additions                           | -                          | -                 | 109.613        | -                    | -                                 | 73.589                        | 183.202        |
| Uses (-)                            | (2.401)                    | (28.297)          | (3.914)        | -                    | -                                 | (92.160)                      | (126.772)      |
| Reversal, unused amounts (-)        | (178)                      | (33.233)          | (5.344)        | (4.746)              | -                                 | (2.641)                       | (46.142)       |
| Adjustment for changes in estimates | 417                        | 5.856             | 2.567          | 36                   | (9.521)                           | (1.227)                       | (1.872)        |
| Exchange rate differences           | -                          | -                 | 2.634          | (734)                | -                                 | -                             | 1.900          |
| Other changes                       | 1.010                      | 3.906             | 3.298          | 2.484                | -                                 | 1.023                         | 11.721         |
| <b>Closing balance</b>              | <b>16.959</b>              | <b>89.416</b>     | <b>179.440</b> | <b>144.453</b>       | <b>-</b>                          | <b>21.827</b>                 | <b>452.095</b> |
| Non current                         | 10.198                     | 61.398            | 63.480         | 132.450              | -                                 | 12.396                        | 279.922        |
| Current                             | 6.761                      | 28.018            | 115.960        | 12.003               | -                                 | 9.431                         | 172.173        |
| <b>Total</b>                        | <b>16.959</b>              | <b>89.416</b>     | <b>179.440</b> | <b>144.453</b>       | <b>-</b>                          | <b>21.827</b>                 | <b>452.095</b> |

Amounts expressed in millions of Colombian pesos -

<sup>1</sup> It shows a decrease due to payments to the environmental plan and to the projects of Nueva Esperanza and the Bello Guayabal Ancón Line.

<sup>2</sup>The decrease obeys to the adjustment of the couple of charges of the fixed and variable cost, which varied from 85/15 to 50/50.

<sup>3</sup>Increase due to the change in the probability of 11 labor litigations of possible and remote to probable whose claimants correspond to former EADE employees.

<sup>4</sup>The decrease in other provisions obeys to the payment made for the non-entry into operation of the Nueva Esperanza projects and the Bello Guayabal Ancón line and the environmental provision with CORANTIOQUIA, multiplier points, employer's policy and provision for high cost.

#### 27.1.1 Dismantling

The EPM Group has the obligation to incur in dismantling or restoration costs of its facilities and assets. Currently, there are three provisions for dismantling or restoration:

- Removal of transformers that contain PCB (polychlorinated biphenyls), the group has agreed to dismantling these assets since 2014 to 2026, supported on resolution 222 of December 15, 2011 from the Ministry of Environment and Sustainable Development and the Stockholm Convention of May 22, 2008. The provision is recognized for the present value of the costs expected to pay the obligation using estimated cash flows. The main assumptions considered in the calculation of the provision are: estimated costs, CPI and TES (internal public debt funds) fixed rate. As of this date it has been evidenced that the provision will be affected given that it has been provided to terminate the dismantling in a time shorter than estimated, in turn the estimated costs reduce given that the dismantling peak already ended.
- Amagá Mine: With resolution 130 AS-1106242 of October 21, 2011 issued by CORANTIOQUIA, the environmental component of the closure plan for the coal mines of the mining title is approved, and for this purpose construction contracts for several civil works, urban planning and monitoring in the coal mines of the mining title, code RPP 434 of the area, are carried in Amagá.
- The main assumptions considered in the calculation of the provision are: estimated costs, CPI and fixed rate TES. Currently, the company is in the final stages of the actions contemplated in the aforementioned resolution and awaiting to a ruling by CORANTIOQUIA on the matter, which could involve more monitoring. However, it is clear that independently of this pronouncement, EPM must carry out the necessary actions for the delivery of the title, which include legal and technical processes and the structuring of decisional schemes. To date, it has been shown that the provision will be affected, due to the fact that, depending on the qualification of the existing risk, it is necessary to continue monitoring the gases from the Amagá area mines for the next 2018 term.
- Environmental provision in the construction of infrastructure projects, it arises as a legal obligation derived from the granting of the environmental license to compensate for the loss of biodiversity during the construction phase, as well as compensation for the subtraction of reserve areas, Closed species and forest use; Obligations that are formalized, through the resolutions of ANLA (National Environmental Licensing Authority), CAR - Regional Autonomous Corporation and / or MADS - Ministry of Environment and Sustainable Development.

Executions of biotic environmental compensations of the project extend beyond the time in which the asset begins to operate technically, being necessary to implement the figure of the provision with the intention that such expenditures remain as greater value of the construction in progress. The Group is committed to compensate for the loss of biodiversity, subtraction and closures from 2016 to 2019 according to the resolutions: Res. 1313/2013 ANLA, Res. 519/2014 ANLA, Res LA. 0882/04/08/2014 ANA, Res. 1166/2013 MADS, Res. 1852/2013 CAR, Res. 2135/2014 CAR, Resolution 1189/22/07/2104 MADS, Res. 1120907 / 17-03-2015 CORNARE, Res. 141011206 / 16-10-2014 CORANTIOQUIA, Res LA. EIA1-9872 04/21/2014 CVS, among others. The provision is recognized by the present value of the expected costs to cancel the obligation using estimated cash flows. The main assumptions considered in the calculation of the provision are: estimated costs, CPI and fixed rate TES.

#### **27.1.2. Contracts for valuable consideration**

As of December 31, 2017, the Group has recognized \$89,414 (2016: \$141,184) for the fuel supply and transportation contract signed between EPM and TGI- Gas International Carrier S.A. E.S.P., with the objective of supporting the termosierra plant and obtaining the income from the reliability charge established by the Energy and Gas Regulatory Commission.

The major assumptions considered in the calculation of the provision are: costs associated to the agreement with the mentioned conditions, utilization factor or suspension of payments for maintenance of the agreement, Libor rate, fixed rate in pesos TES, TRM for the quarter and macroeconomic scenario.

The main hypothesis used on the future events are: from 2018 to 2020 the following assumptions are maintained: Suspension of the contract for 30 days every year and utilization of the contract only for 15 days each year for generation for the Termosierra plant and the rest of the time would be paid without using the contract (only fixed costs).

### 27.1.3. Litigations

This provision covers the estimated probable losses related to labor, civil, administrative and tax litigations that arise in the operations of the EPM Group. The major assumptions considered in the calculation of the provision are: Average CPI to actual data in previous years and projected data in future years, fixed rate TES in pesos to discount, estimated value to be paid, and the estimated payment date for those litigations rated as probable. As of this date no future events have been evidenced that may affect the calculation of the provision.

In order to lessen the uncertainty that may arise with respect to the estimated date of payment and the estimated value to be paid in a litigation rated as probable, there are business rules based on statistical studies with which the average duration of the processes per action was obtained and also the application of the jurisdiction to the maximum limits that it defines for the value of the extra-economic or intangible claims when they exceed their amount, as described below:

#### Average duration of processes per action

##### Administrative and fiscal

| Action                                  | Average years |
|-----------------------------------------|---------------|
| Abbreviated                             | 4             |
| Compliance action                       | 4             |
| Gropu action                            | 6             |
| Popular actions                         | 4             |
| Harmful conciliation                    | 2             |
| Constitution of civil party             | 4             |
| Contractual                             | 13            |
| Demarcation                             | 5             |
| Executive                               | 5             |
| Singular executive                      | 3             |
| Expropriation                           | 4             |
| Incident of integral reparation (penal) | 2             |
| Imposition of easement                  | 4             |
| Nullity of administrative acts          | 5             |
| Nullity and restoration of right        | 10            |
| Nullity and reinstatement of labor law  | 11            |
| Ordinary                                | 7             |
| Ordinary of membership                  | 5             |
| Criminal accusatory (Law 906 of 2004)   | 4             |
| Partitioning processes                  | 4             |
| Protection of consumer rights           | 6             |
| Police complaints                       | 3             |
| Claim                                   | 7             |
| Direct repair                           | 12            |
| Verbal                                  | 5             |

##### Labor processes

| Action                              | Average years |
|-------------------------------------|---------------|
| Solidarity                          | 3,5           |
| Pension                             | 3,5           |
| Extra hours                         | 3,5           |
| Reimbursement                       | 4             |
| Salary scale leveling               | 3,5           |
| Unfair dismissal compensation       | 3,5           |
| Re settlement social benefits       | 3,5           |
| Compensation work accident          | 4             |
| Refund health-pension contributions | 4             |

### Application of jurisprudence

**Typology:** the values of claims for compensation of off-balance damages will be recorded according to the following typology:

- Moral prejudice.
- Damage to health (physiological or biological damage), resulting from bodily or psychophysical injury.
- Damage to the life of relationship.
- Damage to constitutional and conventional property.

The values of other off-balance-sheet claims not recognized by the case-law will not be recorded, unless the claim can be inferred that, despite being otherwise denominated, it corresponds to one of the accepted typologies. Neither will claim for off-balance compensation for damages to property.

**Quantification:** The amount of the off-balance sheet claims will be recorded uniformly as follows, regardless of its typology:

|                     |                                         |
|---------------------|-----------------------------------------|
| For direct victim   | 100 Current Monthly Legal Minimum Wages |
| For indirect victim | 50 Current Monthly Legal Minimum Wages  |

The following are the recognized litigations:

| Third party                                                | Claim                                                                                                                                                                                                                                                                                                                   | Value          |
|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Oscar Elías Arboleda Lopera                                | Includes 173 plaintiffs who worked for EADE and express that in the dissolution and liquidation of that company there was employer substitution, which makes the company liable for all the labor obligations.                                                                                                          | 90.865         |
| Consortio Dragados Porce II                                | Pay to the plaintiffs among others, the sums of money that result from the refund of the total compensation illegally deducted by EPM in the contracting process No. CD002376.                                                                                                                                          | 28.087         |
| Various Labor                                              | Other processes for an amount of less than \$2,380.                                                                                                                                                                                                                                                                     | 18.615         |
| Various administrative                                     | Other processes for an amount of less than \$1,000.                                                                                                                                                                                                                                                                     | 14.371         |
| Velpa Soluciones Integrales S.A.                           | Impossibility of contracting with the State for a period of 5 years, as a result of the decision adopted in the contracting process No. 2009 - 0974.                                                                                                                                                                    | 4.642          |
| Fiduciaria Colpatría S.A.                                  | Issue payment order against EPM and in favor of Fiduciaria Colpatría S.A. acting as speaker of the Stand-alone Trust FC - Enertotal.                                                                                                                                                                                    | 4.561          |
| Municipality of Yumbo                                      | Industry and commerce tax and its complementary tax of signs and boards and public lighting.                                                                                                                                                                                                                            | 4.135          |
| John Walter Jaramillo                                      | That the dismissal be declared null and void, with their respective salaries and increases, social benefits until it is effectively reinstate                                                                                                                                                                           | 3.203          |
| Oliver Antonio Aguirre Soto                                | Reimbursement request, salaries and social benefits.                                                                                                                                                                                                                                                                    | 2.380          |
| Francisco Arturo Muriel Palacio                            | Moral damages and damages to the relational life, caused to the plaintiffs on occasion of the death of Claudia Patricia Cepeda Muriel, in events that took place on 27/05/2008 at carrera 49 between 16 South and 18 South streets.                                                                                     | 1.900          |
| Unión Temporal Energía Solar S.A. y Estructuras Arbi Ltda. | That the bid presented by the plaintiffs in the public tender No. ES-2043-GI called by EPM be declared that was legally fit to be taken into account at the time of granting the respective program of tender No. ES-2043-GI.                                                                                           | 1.847          |
| Construcciones Pico y Pala Ltda.                           | That resolutions 95070 of 05/04/1999, issued by EPM, whereby the contract 1/DJ-682/15 entered into between EPM and Consortium Trainco S.A. was unilaterally terminated and 113701 of 15/03/2000, issued also by EPM, whereby the reconsideration appeal filed against resolution 95070 of 05/04/1999 are null and void. | 1.727          |
| Accesorios y Sistemas S.A.                                 | Declare the nullity of resolution 3077 of 11/12/2000, issued by the General Manager of EPM, whereby it was resolved to declare the occurrence of the quality and correct operation risk of the vehicles object of contract 090321557 .                                                                                  | 1.069          |
| Trainco S.A.                                               | That the nullity of resolutions 161052 of 05/03/2001 issued by EPM, whereby contract 2101870 entered into EPM and TRAINCO S.A. was terminated unilaterally, and 178702 of 07/06/2001 be declared.                                                                                                                       | 1.005          |
| Municipality of Uribia                                     | Assessment of the public lighting tax.                                                                                                                                                                                                                                                                                  | 607            |
| Various Tax                                                | Other processes for an amount of less than \$600 million pesos.                                                                                                                                                                                                                                                         | 426            |
| <b>Total litigios reconocidos</b>                          |                                                                                                                                                                                                                                                                                                                         | <b>179.440</b> |

- Amounts expressed in millions of Colombian pesos -

#### 27.1.4. Joint ventures

It corresponds to contingent considerations related to the acquisition of the following group of assets that constitute a business: Espiritu Santo Energy S. de R.L. subsidiary and Empresas Varias de Medellín S.A. E.S.P. - EMVARIAS subsidiary, the balance as of December 31, 2017 amounted to \$125,428 (2016: \$129,076) and \$19,025 (2016: \$18,337), respectively.

The main assumptions considered in the calculation of the contingent consideration related to the acquisition of Espiritu Santo are: estimated date of occurrence of milestones associated to the contingent payment, probability of occurrence associated, and additionally the discount of the flows of payments was considered applying a discount rate (Libor Rate) in accordance with the risk of the liability. As of this date no future events have been evidenced that may affect the calculation of the provision.

The main hypothesis used in the future events of the contingent consideration related to the acquisition of EMVARIAS are: ongoing litigation against EMVARIAS at the date of the transaction, definition of the year of materialization of each litigation, definition of the related value to each of the disputes, estimate of future contingent expenses related to the litigation estimated for each year and discount rate (TES fixed rate) to

discount future contingent expenditure flows. To date, there have been no future events that could affect the calculation of the provision.

#### 27.1.5. Implicit subsidiary obligations

Corresponds to the implicit obligation of the Hydroecological Subsidiary of Teribe S.A. (HET) derived from the application of the participation method.

#### 27.1.6. Other provisions

EPM maintains other provisions oriented to the welfare and quality of life of its employees and family group, such as: employer's policy, multiplier points, Somos program, technical reserve and provision for high-cost and catastrophic illnesses.

The main assumptions considered in the calculation for each type of provision are:

**Employer policy:** Awarded to EPM servers as an extralegal benefit. An aggregate deductible was contracted from November 1, 2016 through December 31, 2018, for \$ 5,500. The main assumptions considered in the calculation for each type of provision are: discount rate TES fixed rate, estimated value to be paid and estimated date of payment. To date, there have been no future events that could affect the calculation of the provision.

**Multiplying points:** The points obtained in the year must be recognized at the request of the interested party or by decision of the Human Talent Development Directorate each time that there is an accounting closing of the period and must be paid through the payroll. The value of each point is equivalent to 1% of the MMLWE and the points should not be accumulated from one year to the next.

**Somos Program:** The program operates under the modality of accumulation of points. According to the statistics' behavior the points are accounted for with a probability of 80% redemption.

**Technical reserve:** The base to calculate the reserve is that corresponding to all the authorization of services issued and that on the closing date in which the reserve is going to be calculated have not been collected, except those that correspond to authorizations with over twelve months of issue or those that after at least 4 months of having been issued, there is evidence that they have not been used.

**High cost and catastrophic diseases:** The base to calculate such provision is that corresponding to the analysis of the entire population served of affiliates and beneficiaries of the Entidad Adaptada de Salud (EAS) of EPM, that suffer any of the authorized pathologies.

#### 27.1.7. Estimated payments

The estimate of the dates on which the Group considers that it will have to face the payments related to the provisions included in the Consolidated statement of financial position as of the report date, is the following:

| Estimated payments | Desmantling or restoration | Onerous contracts | Litigation     | Business combination | Others        | Total          |
|--------------------|----------------------------|-------------------|----------------|----------------------|---------------|----------------|
| 2018               | 17.526                     | 28.002            | 117.916        | 12.003               | 5.375         | 180.822        |
| 2019               | 9.812                      | 29.673            | 11.460         | 117.996              | 3.345         | 172.286        |
| 2020               | 2.471                      | 29.214            | 33.926         | 3                    | 2.910         | 68.524         |
| 2021 y otros       | 114                        | -                 | 29.669         | 6.957                | 3.708         | 40.448         |
| <b>Total</b>       | <b>29.923</b>              | <b>86.889</b>     | <b>192.971</b> | <b>136.959</b>       | <b>15.338</b> | <b>462.080</b> |

- Amounts expressed in millions of Colombian pesos -

## 27.2 Contingent liabilities and assets

The breakdown of liabilities and contingent assets is as follows:



| Description  | Contingent liabilities | Contingent assets | Net              |
|--------------|------------------------|-------------------|------------------|
| Litigation   | (789.535)              | 329.058           | (460.477)        |
| <b>Total</b> | <b>(789.535)</b>       | <b>329.058</b>    | <b>(460.477)</b> |

- Amounts expressed in millions of Colombian pesos -

The Group has litigations or procedures that are currently in process with the legal, administrative and arbitration bodies. Taking into consideration the reports of the legal advisors, it is reasonable to appreciate that such litigations will not affect / significantly affect the financial situation or the solvency, even in the case of unfavorable conclusion of any of them.

The main litigations pending of resolution and judicial and extrajudicial disputes in which the Group is a party to as of the report date, are indicated below:

### Contingent liabilities

| Third Party                         | Claim                                                                                                                                                                                                                                                                      | Value          |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Inciviles                           | To declare the nullity of Resolutions 0041 of January 21, 2005 and 00283 of April 21, 2005 issued by EPM where the risk of non-fulfillment of contract No. 020113590 was declared.                                                                                         | 436.869        |
| Various administrative              | Processes of less than \$ 5,218.                                                                                                                                                                                                                                           | 145.396        |
| Federación Nacional de Cafeteros    | Recognition and payment of the investments made by the National Federation of Coffee Growers of Colombia in electric infrastructure works.                                                                                                                                 | 102.387        |
| Compañía Minera La Cuelga Ltda.     | Indemnification of all economic damages caused to Compañía Minera La Cuelga, which have their origin in the works of construction, filling of the dam and commissioning of the Porce III hydroelectric project.                                                            | 36.644         |
| Energía Del Rio Piedras S.A. E.S.P. | To declare that EPM has the obligation to pay the energy that ERP sells to it at the contract prices without limitation.                                                                                                                                                   | 13.040         |
| Demandas laborales                  | Refunds, salary levels, overtime, conventional benefits, among others.                                                                                                                                                                                                     | 10.164         |
| Aura De Jesús Salazar Mazo          | Infringing and putting at risk the collective right, by destructing, interrupting and cutting the ancestral horse trails that lead to the village Alto Chiri from the municipality of Briceño to the village Valle de Toledo.                                              | 9.572          |
| Oscar Antonio Giraldo Avendaño      | That EPM and other entities be declared responsible for damages caused to the plaintiffs for the landslides in Calle Vieja of the neighborhood La Gabriela Bello on December 5/2010.                                                                                       | 7.203          |
| Industrias Lehner S.A.              | To declare that in the performance of contract No. SCN-3225E an economic unbalance was produced between the considerations of the parties and in disfavor of the contractor.                                                                                               | 6.867          |
| CONINSA S.A.                        | To declare that EPM incurred in breach of contract No. 2/DJ-2183/43 and its additional agreement, for the non payment of the damages suffered, originating an economic unbalance by not having recognized timely the value of the higher costs suffered by the Consortium. | 6.133          |
| Velpa Soluciones Integrales         | That EPM will be sentenced to pay to Velpa Soluciones Integrales S.A. for the damages suffered by rejecting their proposal, within the contracting process No. 2009-0927, and having granted it to the firms ELECTROLUMEN Ltda and MELEC S.A.                              | 5.144          |
| Alejandra Betancur Giraldo          | Declare that EPM, the municipality of Girardota and INGELEL, are responsible for the de facto occupation of the premises of the plaintiffs.                                                                                                                                | 5.122          |
| Mateo Aristizábal Tuberqui          | That EPM is responsible for the material damages, caused between November and December 2009 to the family business called Hosteria Los Recuerdos, by the operation of the Guatape hydroelectric plant and of the Peñol-Guatape dam.                                        | 4.992          |
| <b>Total contingent liabilities</b> |                                                                                                                                                                                                                                                                            | <b>789.535</b> |

Amounts expressed in millions of Colombian pesos -

With respect to the uncertainty in the estimated date of payment and the estimated value to be paid, for contingent liabilities the same business rules indicated in note 27.1.3 Litigations apply.

EPM also has a contingent liability, an Environmental Sanctioning Procedure, with the following information:

| Third Party                                        | Claim                                                                                                                                                                                                                                                                                                                                                                                              | Value                                             |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Área Metropolitana del Valle de Aburrá             | Non-compliance with the removal percentages for BOD - Biochemical Oxygen Demand - and TSS - Total Suspended Solids - in the San Fernando Wastewater Treatment Plant.                                                                                                                                                                                                                               | It is not possible to know the sanction to impose |
| Autoridad Nacional de Licencias Ambientales "ANLA" | Charge against EPM for having prevented the contribution of the ecological flow, when closing the bottom discharge valves of the Porce III Hydroelectric Power Plant, to advance the repair activities of the slopes of the discharging basin of the landfill, of the dam and the discharge of the ecological flow without counting on the pronouncement by the competent environmental authority. | It is not possible to know the sanction to impose |

### Contingent assets

| Third Party                                            | Claim                                                                                                                                                                                                                                                                                        | Value          |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Municipio de Bello                                     | Integral nullity of the complex administrative act contained in Resolutions 2717 of 2009 and 0531 of 2010. PTAR Bello.                                                                                                                                                                       | 106.207        |
| Municipio de Bello                                     | Reimbursement of the money paid by EPM corresponding to the determination and liquidation of the goodwill effect, PTAR Bello.                                                                                                                                                                | 100.887        |
| Comisión de Regulación de Energía y Gas - CREG         | That the nullity of administrative act issued by the CREG, official communication MMECREG-438 del 28-02-98 whereby the right of petition submitted by EPM is answered.                                                                                                                       | 83.022         |
| Superintendencia de Servicios Públicos Domiciliarios   | The declaration of nullity of Resolution SSPD-2016-8300007575 of March 17, 2016 is requested.                                                                                                                                                                                                | 10.352         |
| Other Administrative                                   | Processes for an amount of less than \$2,969 million pesos.                                                                                                                                                                                                                                  | 6.777          |
| La Nación Ministerio de Salud y Protección Social      | The Ministry of Health has the legal and constitutional obligation to recognize and pay the value of the services provided to the affiliates in respect to the medications and/or procedures, interventions or elements not included in the Mandatory Health Plan (POS).                     | 5.640          |
| Ministerio del Medio Ambiente y Desarrollo Territorial | Declaration of nullity invoked, to declare that within the costs related to the construction and operation of the Hydroelectric Project Porce III, EPM may include the costs related to adjustments and other items.                                                                         | 4.574          |
| Interconexión Eléctrica S.A. E.S.P. ISA                | It is civilly liable for not recognizing to EPM the value that corresponds to it of the remuneration that ISA received between the years 1995 to 1999 for the line modules that correspond to assets in use of the STN (National Transmission System) in the substations Playas and Guatapé. | 3.175          |
| Superintendencia de Servicios Públicos Domiciliarios   | That the nullity be declared to resolutions for the official assessment of the special contribution of energy of year 2012.                                                                                                                                                                  | 3.139          |
| Poblado Club Campestre Ejecutivo S.A.                  | Responsibility for the damage of the water collector owned by EPM that collects and transports the wastewater of the sanitary basin of La Honda stream in the municipality of Envigado.                                                                                                      | 2.969          |
| Other taxes                                            | Processes of less than \$ 3,139.                                                                                                                                                                                                                                                             | 2.314          |
| <b>Total contingent assets</b>                         |                                                                                                                                                                                                                                                                                              | <b>329.058</b> |

- Amounts expressed in millions of Colombian pesos -

As of December 31, 2017, the value determined by the experts to be indemnified is \$ 329,058 (2016: \$ 198,454).

### Estimated payments and collections

The estimation of the dates in which the company considers that it will have to face the payments related to the contingent liabilities or will receive the collections for the contingent assets included in this note to the separate statement of financial situation at the cut-off date, is the following:

| Year            | Contingent liabilities | Contingent assets |
|-----------------|------------------------|-------------------|
| 2018            | 483.361                | 93.495            |
| 2019            | 117.141                | 1.482             |
| 2020            | 18.432                 | 124.366           |
| 2023 and others | 308.714                | 164.541           |
| <b>Total</b>    | <b>927.648</b>         | <b>383.884</b>    |

-Amounts expressed in millions of Colombian pesos -

## Nota 28. Other liabilities

The composition of other liabilities is as follows:

| Other liabilities                               | 2017           | 2016           |
|-------------------------------------------------|----------------|----------------|
| <b>Non-current</b>                              |                |                |
| Other securities issued                         | -              | -              |
| Collection for third parties                    | 10             | 10             |
| Revenue received in advance                     | 3.099          | 3.485          |
| Government Grants                               | -              | -              |
| Assets received from customers or third parties | 8.161          | 8.248          |
| Other deferred receivables                      | 21.229         | 21.298         |
| <b>Total otros pasivos no corriente</b>         | <b>32.499</b>  | <b>33.041</b>  |
| <b>Current</b>                                  |                |                |
| Collection for third parties                    | 76.165         | 73.041         |
| Revenue received in advance                     | 58.067         | 67.673         |
| <b>Total other current liabilities</b>          | <b>134.232</b> | <b>140.714</b> |
| <b>Total other liabilities</b>                  | <b>166.731</b> | <b>173.755</b> |

- Amounts expressed in millions of Colombian pesos -

### 28.1 Income received in advanced

The detail of the income received in advance as of the cut-off date was:

| Revenue received in advance                         | 2017          | 2016          |
|-----------------------------------------------------|---------------|---------------|
| <b>Non-Current</b>                                  |               |               |
| Leases                                              | 2.375         | 2.728         |
| Sale of energy service                              | 724           | 757           |
| <b>Total non-current income received in advance</b> | <b>3.099</b>  | <b>3.485</b>  |
| <b>Current</b>                                      |               |               |
| Leases                                              | 172           | 173           |
| Sales                                               | 9.581         | 8.097         |
| Sale of energy service                              | 33.553        | 51.959        |
| Sale of fuel gas service                            | 8.329         | 8.746         |
| Other income received in advance                    | 6.432         | (1.302)       |
| <b>Total current income received in advance</b>     | <b>58.067</b> | <b>67.673</b> |
| <b>Total income received in advance</b>             | <b>61.166</b> | <b>71.158</b> |

Amounts expressed in millions of Colombian pesos -

## Nota 29. Revenues from Ordinary activities

The detail of revenues from ordinary activities is as follows:

| Income from ordinary activities    | 2017             | 2016             |
|------------------------------------|------------------|------------------|
| <b>Provision of services</b>       |                  |                  |
| Energy service <sup>(1)</sup>      | 5.572.574        | 5.367.415        |
| Fuel Gas Service <sup>(2)</sup>    | 735.005          | 804.434          |
| Sanitation service                 | 400.591          | 397.995          |
| Aqueduct service <sup>(3)</sup>    | 492.044          | 405.948          |
| Computer Services                  | 4.581            | 3.355            |
| Construction contracts             | 32.714           | 13.347           |
| Other services                     | 38.202           | 40.697           |
| Returns <sup>(4)</sup>             | (178.068)        | (33.114)         |
| <b>Total provision of services</b> | <b>7.097.643</b> | <b>7.000.077</b> |
| Leases                             | 48.277           | 35.907           |
| Income from sale of assets         | 1.040            | 38.750           |
| <b>Total</b>                       | <b>7.146.960</b> | <b>7.074.734</b> |

Amounts expressed in millions of Colombian pesos -

<sup>1</sup>In the energy service, the increase in the income is explained mainly by the entry in operation of the Nueva Esperanza electric energy transmission project.

<sup>2</sup>In the service of fuel gas, the decrease is explained by the lower sales to the thermal since in 2016 the operation was affected by El Niño climate cycle.

<sup>3</sup>In the aqueduct service, the increase is due to the application of the rate increase in January 2017.

<sup>4</sup>The refunds showed an increase by the higher refund of the reliability charge associated to the higher generation of energy.

The Group does not have ordinary income encumbered, contingencies that have not been recognized affecting the income or firm commitments with the customers for the rendering of future services from which it is estimated that losses will be generated.

#### Construction contracts

The Group recognized revenue from ordinary activities for asset-building agreements within the scope of IAS 11 Construction Contracts at the cut-off date for \$32,714 (2016: \$13,347).

The method applied to determine the degree of progress of the previous construction contracts is the proportion of the costs of the contract incurred in the work already performed as of this date, in relation to the total estimated costs for the contract.

The Group recognized the following values in the period for the agreements in effect at the report date described in the previous paragraph:

| 2017                                   | Costs incurred plus profits recognized | Advances received from customers for construction contracts |
|----------------------------------------|----------------------------------------|-------------------------------------------------------------|
| Convenios Municipio de Medellín        | 30.979                                 | -                                                           |
| Convenio Aguas 5 Municipio de Medellín | -                                      | 452                                                         |
| Convenio Aguas 6 Municipio de Medellín | -                                      | (10.521)                                                    |
| Convenio FAER 2 electrificación rural  | -                                      | (637)                                                       |
| Convenio Aguas 8 Municipio de Bolívar  | -                                      | 14.653                                                      |
| Convenio FAER Ituango                  | -                                      | 642                                                         |
| Otros convenios                        | 1.735                                  | 550                                                         |
| <b>Total</b>                           | <b>32.714</b>                          | <b>5.139</b>                                                |

*Amounts expressed in millions of Colombian pesos -*

| 2016                                   | Costs incurred plus profits recognized | Advances received from customers for construction contracts |
|----------------------------------------|----------------------------------------|-------------------------------------------------------------|
| Convenios Municipio de Medellín        | 5.739                                  | -                                                           |
| Convenio Electrificadora de Santander  | 3.545                                  | -                                                           |
| Convenio Ministerio de Minas y Energía | 1.325                                  | -                                                           |
| Convenio Aguas 3 Municipio de Medellín | 1.321                                  | -                                                           |
| Convenio Aguas 7 Municipio de Medellín | 833                                    | 341                                                         |
| Convenio Municipio de Caldas           | 584                                    | 174                                                         |
| Convenio Aguas 5 Municipio de Medellín | -                                      | 2.385                                                       |
| Convenio Aguas 6 Municipio de Medellín | -                                      | 6.803                                                       |
| Convenio Gobernación Urabá             | -                                      | 1.000                                                       |
| Convenio Municipio de El Peñol         | -                                      | 1.046                                                       |
| Convenio Municipio de Guatapé          | -                                      | 3.118                                                       |
| Convenio Cornare                       | -                                      | 1.106                                                       |
| Convenio Aguas 8 Municipio de Bolívar  | -                                      | 16.514                                                      |
| Otros convenios                        | -                                      | 323                                                         |
| <b>Total</b>                           | <b>13.347</b>                          | <b>32.810</b>                                               |

Amounts expressed in millions of Colombian pesos -

## Nota 30. Other revenues

The detail of the other revenues, which are part of the revenues from ordinary activities, is as follows:

| Other income                                                                    | 2017           | 2016             |
|---------------------------------------------------------------------------------|----------------|------------------|
| Recoveries <sup>(1)</sup>                                                       | 182.472        | 121.991          |
| Reversal loss due to impairment of accounts receivable                          | 27.704         | 4.656            |
| Commissions                                                                     | 27.229         | 28.985           |
| Other ordinary income                                                           | 12.812         | 29.807           |
| Valuation of Investment Property                                                | 9.941          | 7.010            |
| Indemnities <sup>(2)</sup>                                                      | 9.462          | 478.258          |
| Achievements                                                                    | 6.213          | 6.302            |
| Reversal loss due to impairment of property, plant and equipment <sup>(3)</sup> | -              | 685.550          |
| Reversal loss due to impairment of intangible assets <sup>(4)</sup>             | -              | 25.664           |
| <b>Total</b>                                                                    | <b>275.833</b> | <b>1.388.223</b> |

Amounts expressed in millions of Colombian pesos -

<sup>1</sup>Includes the refund for payment in excess of the equity tax of the taxable period of 2011 for \$127,205, in accordance with authorization for refund by the Tax Authority after carrying out the respective prior investigation to refund and having exercised the right of defense by EPM by filing the recourses of law and the extinguishment of the government channels. The requests for refund were for \$200,874, and for this reason the remaining \$73,669 are subject to discussion through the filing of complains, in exercise of the control means of nullity and reestablishment of the right.

<sup>2</sup>In 2017, \$5,908 is included corresponding to the indemnification for consequential damage related to the Playas Plant and in 2016 \$472,098 is included of the indemnification for lost profits and consequential damage related to the loss that occurred in the Guatapé Plant.

<sup>3</sup>2016 includes the reversal of impairment in the Water Supply segment, detailed in Note 7 Impairment of assets

## Nota 31. Costs of sales

The detail of the costs of sales is as follows:

| Costs for service provision                               | 2017             | 2016             |
|-----------------------------------------------------------|------------------|------------------|
| Cost of public goods and services for sale <sup>(1)</sup> | 2.177.226        | 2.707.261        |
| Payroll expenses                                          | 433.246          | 366.004          |
| Depreciations                                             | 415.504          | 402.103          |
| Orders and contracts for other services                   | 273.807          | 235.615          |
| Licenses, contributions and royalties                     | 145.905          | 118.222          |
| Orders and contracts of maintenance and repairs           | 138.615          | 137.503          |
| Materials and Other Operating Costs                       | 104.403          | 99.510           |
| Insurance                                                 | 77.942           | 65.520           |
| General                                                   | 61.384           | 52.611           |
| Amortization                                              | 36.507           | 27.837           |
| Fees                                                      | 32.232           | 36.362           |
| Taxes and rates                                           | 30.709           | 32.418           |
| Consumo de insumos directos <sup>2</sup>                  | 27.466           | 394.184          |
| Other                                                     | 15.624           | 13.058           |
| Impairment of property, plant and equipment               | -                | 564.428          |
| Impairment of intangible assets                           | -                | 64.091           |
| <b>Total</b>                                              | <b>3.970.570</b> | <b>5.316.727</b> |

Amounts expressed in millions of Colombian pesos -

<sup>1</sup>Includes the value energy purchases in block and in the energy exchange, cost for connection, use of network lines and ducts, commercialization and distribution cost of natural gas, among other costs. The reduction in respect to the previous period is due mainly to lower costs for purchases of energy in the energy exchange for the reduction of the price.

<sup>2</sup>Includes the cost of chemical products, fuel gas, energy, ACPM (petro-diesel) and fuel oil, that showed a decrease basically by the lower consumption of gas and ACPM in the year because in 2016 El Niño cycle was experienced and higher generation was required with the thermal generation plants of the Group.

<sup>3</sup>Corresponds to the impairment in 2016 of the Sanitation segment detailed in note 7 Impairment of assets.

## Nota 32. Administration expenses

The detail of administration expenses is as follows:

| Administration expenses                                 | 2017           | 2016           |
|---------------------------------------------------------|----------------|----------------|
| <b>Personnel expenses</b>                               |                |                |
| Wages and salaries                                      | 194.161        | 173.000        |
| Social Security Expenses                                | 75.123         | 70.548         |
| Pension expenditure                                     | 12.109         | 10.026         |
| Other post-employment benefit plans other than pensions | 1.329          | 1.425          |
| Other long-term benefits                                | 2.686          | 2.794          |
| Employee Interest Rate Benefits                         | 5.102          | 4.244          |
| <b>Total personnel expenses</b>                         | <b>290.510</b> | <b>262.037</b> |
| Provision for contingencies (1)                         | 116.087        | 21.104         |
| Taxes, contributions and fees <sup>(2)</sup>            | 113.450        | 242.210        |
| Commissions, fees and services                          | 63.276         | 47.389         |
| Maintenance                                             | 41.799         | 43.795         |
| Other miscellaneous provisions                          | 37.060         | 36.143         |
| Other general expenses                                  | 29.217         | 45.697         |
| Intangibles                                             | 27.443         | 21.637         |
| Depreciation of property, plant and equipment           | 27.217         | 28.222         |
| Studies and projects                                    | 17.732         | 13.178         |
| Promotion and dissemination                             | 11.578         | 12.993         |
| Amortization of intangibles                             | 11.107         | 8.812          |
| Publicity and advertising                               | 9.060          | 7.825          |
| Vigilance and security                                  | 7.276          | 6.107          |
| Public services                                         | 5.952          | 6.299          |
| Provision for onerous contracts                         | 5.856          | 4.215          |
| General insurances                                      | 5.581          | 4.693          |
| Toilet, cafeteria, restaurant and laundry services      | 5.553          | 5.080          |
| Learning contracts                                      | 2.786          | 2.582          |
| Leases                                                  | 2.301          | 3.130          |
| Information processing                                  | 1.629          | 1.754          |
| Communications and transportation                       | 1.436          | 2.338          |
| Cultural events                                         | 1.339          | 1.869          |
| Printed, publications, subscriptions and affiliations   | 1.264          | 1.653          |
| Social assets                                           | 1.235          | 33.471         |
| Legal expenses <sup>3</sup>                             | 460            | 46.578         |
| <b>Total general expenses</b>                           | <b>547.694</b> | <b>648.774</b> |
| <b>Total</b>                                            | <b>838.204</b> | <b>910.811</b> |

*Amounts in millions of colombian pesos*



<sup>1</sup>Increase due to the change in the probability of 11 labor litigations of possible and remote to probable whose claimants correspond to former employees of EADE.

<sup>2</sup>The decrease is explained by the valorization contribution for the rectification and paving of the El Limón-Anorí road, in accordance with Resolution 2016060005142 of the Government of Antioquia, recognized in April 2016 for \$ 78,696 and the lowest tax on the Wealth for \$ 41,939 at a rate of 0.4% lower than the previous year's 1%.

<sup>3</sup>In 2016, the expense corresponded to the 10% of the net proceeds of the disposal of the shares of ISAGEN S.A. E.S.P. according to Law 226 of 1995 for \$ 46,040.

## Nota 33. Other expenses

The detail of other expenses is as follows:

| Other expenses                                           | 2017          | 2016          |
|----------------------------------------------------------|---------------|---------------|
| Contributions in non-corporate entities                  | 21.158        | 19.700        |
| Loss on asset retirement                                 | 18.252        | 15.257        |
| Other ordinary expenses                                  | 2.038         | 1.936         |
| Arbitral awards and extrajudicial conciliation           | 1.307         | 16.246        |
| Loss on changes in the fair value of investment property | 413           | 29.194        |
| <b>Total</b>                                             | <b>43.168</b> | <b>82.333</b> |

*Amounts expressed in millions of Colombian pesos -*

## Nota 34. Financial income and expenses

### 34.1 Financial income

The detail of financial income is as follows:

| Ingresos financieros                                                  | 2017           | 2016           |
|-----------------------------------------------------------------------|----------------|----------------|
| <b>Ingreso por interés:</b>                                           |                |                |
| Intereses de deudores y de mora                                       | 193.398        | 183.666        |
| Depósitos bancarios                                                   | 13.611         | 31.074         |
| Ingresos por interés de activos financieros a costo amortizado        | -              | 2.830          |
| Utilidad en derechos en fideicomiso                                   | 33.799         | 38.392         |
| Utilidad por valoración de instrumentos financieros a valor razonable | 18.386         | 8.492          |
| Otros ingresos financieros                                            | 3.056          | 3.003          |
| <b>Total ingresos financieros</b>                                     | <b>262.250</b> | <b>267.457</b> |

*Cifras en millones de pesos colombianos*

### 34.2 Financial expenses

The detail of financial expenses is as follows:

| Gastos financieros                                                                                         | 2017           | 2016           |
|------------------------------------------------------------------------------------------------------------|----------------|----------------|
| <b>Interest expense:</b>                                                                                   |                |                |
| Interest on obligations under financial leasing                                                            | 35.785         | 33.576         |
| Other interest expense                                                                                     | 245            | 435            |
| <b>Total interests</b>                                                                                     | <b>36.030</b>  | <b>34.011</b>  |
| Total interest expense on financial liabilities that are not measured at fair value through profit or loss | 904.926        | 833.963        |
| Less interest capitalized on eligible assets                                                               | (279.974)      | (259.882)      |
| <b>Other financial costs:</b>                                                                              |                |                |
| Commissions                                                                                                | 755            | 552            |
| Other financial expenses                                                                                   | 136.041        | 72.336         |
| <b>Total financial expenses</b>                                                                            | <b>797.778</b> | <b>680.980</b> |

Amounts expressed in millions of Colombian pesos -

<sup>1</sup>Includes the valuation of financial instruments at fair value of the hedges that are not under hedge accounting because the underlying was canceled in November 2017.

## Nota 35. Exchange difference, net

The effect of transactions in foreign currency is the following:

| Difference, net                                | 2017           | 2016           |
|------------------------------------------------|----------------|----------------|
| <b>Income for difference in exchange</b>       |                |                |
| <u>Own position</u>                            |                |                |
| For goods and services and others              | 1.189          | 32.310         |
| By liquidity                                   | 28.456         | 477            |
| Accounts receivable                            | 73.348         | 109.008        |
| Other adjustments for difference in exchange   | 3.368          | 6.669          |
| <b>Total own position</b>                      | <b>106.361</b> | <b>148.464</b> |
| <u>Financial services</u>                      |                |                |
| Gross income                                   | 14.416         | 275.607        |
| Debt hedge                                     | (330)          | -              |
| <b>Total Financial</b>                         | <b>14.086</b>  | <b>275.607</b> |
| <b>Total income for difference in exchange</b> | <b>120.447</b> | <b>424.071</b> |
| <b>Expense for exchange difference</b>         |                |                |
| <u>Own position</u>                            |                |                |
| For goods and services and others              | 3.068          | 9.646          |
| By liquidity                                   | -              | 24.995         |
| Accounts receivable                            | 12.347         | 162.811        |
| Other adjustments for difference in exchange   | 548            | 106            |
| <b>Total own position</b>                      | <b>15.963</b>  | <b>197.558</b> |
| <u>Financial services</u>                      |                |                |
| Gross income                                   | 73.672         | 7.052          |
| Debt hedge                                     | (33.859)       | (8.318)        |
| <b>Total Financial</b>                         | <b>39.813</b>  | <b>(1.266)</b> |
| <b>Total expense for exchange difference</b>   | <b>55.776</b>  | <b>196.292</b> |
| <b>Net exchange difference</b>                 | <b>64.671</b>  | <b>227.779</b> |

Amounts expressed in millions of colombian pesos

The rates used for the conversion of foreign currency in the separate financial statements are:

| Currency             | Currency type | Direct USD conversion at 31, december |        | Closing exchange rate as of december 31 |          | Average exchange rate as of december 31 |          |
|----------------------|---------------|---------------------------------------|--------|-----------------------------------------|----------|-----------------------------------------|----------|
|                      |               | 2017                                  | 2016   | 2017                                    | 2016     | 2017                                    | 2016     |
| United States dollar | USD           | 1,25                                  | 1,34   | 2.984,00                                | 3.000,71 | 2.951,32                                | 3.050,98 |
| Quetzal              | GTQ           | 7,34                                  | 7,52   | 406,27                                  | 398,84   | 401,49                                  | 401,30   |
| Mexican peso         | MXN           | 19,57                                 | 20,60  | 152,51                                  | 145,65   | 156,51                                  | 163,64   |
| Chilean peso         | CLP           | 614,98                                | 669,79 | 4,85                                    | 4,48     | 4,55                                    | 4,51     |
| Euro                 | EUR           | 0,83                                  | 0,95   | 3.583,19                                | 3.165,00 | 3.335,21                                | 3.375,96 |
| Yen                  | JPY           | 112,65                                | 116,64 | 26,50                                   | 25,73    | 26,32                                   | 28,13    |
| Pound sterling       | GBP           | 0,74                                  | 0,81   | 4.036,61                                | 3.707,83 | 3.803,77                                | 4.133,64 |
| Swiss franc          | CHF           | 0,97                                  | 1,02   | 3.062,09                                | 2.952,44 | 2.999,08                                | 3.097,64 |

## Nota 36. Effect by interest in equity investments

The effect by participation in equity investments is as follows:

| Interest in equity investment          | 2017          | 2016          |
|----------------------------------------|---------------|---------------|
| Dividends and shares <sup>(1)</sup>    | 44.157        | 32.433        |
| Result due to business combination (2) | 32.669        | -             |
| Result in equity investments sale, net | 20            | 24            |
| <b>Total</b>                           | <b>76.846</b> | <b>32.457</b> |

*Amounts in millions of Colombian pesos -*

<sup>1</sup> Includes dividends from financial instruments for \$ 44,157 (2016 \$ 32,433) (see note 12. Other financial assets).

<sup>2</sup> During the period, a result was recognized by business combination for \$ 32,669, for the acquisition of control on November 1, 2017 of the subsidiary Empresas Públicas de Rionegro S.A. E.S.P. - EP RIO, originated by the difference between the consideration transferred and the fair value of the net identifiable assets acquired<sup>3</sup>.

The consideration transferred was established based on the valuation of the company that considers future investments (investments in capital assets - capex- that are executed when a business invests in the purchase of a fixed asset or to add value to an existing asset) that must be carried out to guarantee its viability and an adequate provision of public services; which generates a negative value of it.

<sup>3</sup> Established based on IFRS 13 fair value measurement.

## Nota 37. Income tax

### 37.1 Tax provisions

Tax provisions applicable and in effect, establish the following:

- The nominal rate of the income tax is 34% and a surtax of 6%.
- Domiciliary public utilities in Colombia are excluded from determining the income tax by the system or presumptive income calculated based on the net tax equity of the immediately preceding year.

During 2016, the National Government presented a tax reform project to the Congress of the Republic, whose purpose according to the explanatory memorandum is to establish a more equitable, efficient and simple tax system.

The initiative is based on the report presented by the commission of experts that was created to study the Colombian tax system and propose improvements to its structure, in addition to the economic pressures resulting from the decrease in oil revenues, a panorama of uncertainty given by the increase in the volatility of the financial markets and the slowdown of the Chinese economy, which negatively impacted the current income of the nation.

Under this scenario and after exhausting the stages that for the creation of the Law demand the Colombian norms, on December 29, 2016, Law 1819 of 2016 was sanctioned "Through which a structural tax reform is adopted, mechanisms are strengthened for the fight against evasion and tax avoidance, and other disposals are dictated. "

In this sense, among the main modifications, we can mention:

- General rate of income tax and complementary: the income tax and income tax for equity - CREE - are unified, staying as rental rates the followings:

2017: 34% and a surtax 6%

2018: 33% and a surtax 4%

2019 and following: 33%, surtax disappears.

- The surtax is subject to the advance payment mechanism and applies to the portion of the tax base that exceeds eight hundred million pesos.
- Presumptive income.

The presumptive income in 2016 was 3% and for 2017 and following, it will be 3.5%.

The exemption is maintained in the determination of presumptive income for companies of domiciliary public utilities.

### Tax on the sales

- In 2016 the VAT rate was 16% and from 2017 the general VAT rate will be 19%.
- In contracts celebrated with Public Entities, is maintained the current rate as of the date of awarding, for contracts subscribed before January 1, 2017, the rate increases once they are added.
- The right to take as deduction the VAT paid in the acquisition or importation of capital goods is incorporated.
- Express referrals are made to the International Financial Reporting Standards for the determination of tax bases.

- The general firmness of the tax returns increases from two (2) to three (3) years. For taxpayers subject to the transfer pricing regime it will be six (6) years. The same term will apply when offsetting tax losses.
- Article 130 is repealed, which avoids appropriation of profits for reserve purposes.
- New rules on depreciation related to the annual deduction rate are established.
- The carbon tax is created, the consequence of which will be evident in the prices of the goods acquired by the company subject to this tax.
- The rules for withholding on dividends are defined.
- A limit of twelve (12) years is established for the compensation of tax losses.
- Adoption of international mechanisms against the erosion of the tax basis and benefits transfer, incorporation of the Regime of Controlled Entities Abroad (ECE), limitation of royalty payments with affiliates from abroad and the free zone, implementation of the figure of not cooperating, low or no taxation jurisdictions, and preferential tax regimes, changes to the transfer pricing regime and rules over effective beneficiary.
- Rules related to territoriality, taxable base and national single form are defined for the fulfillment of the obligations in the industry and commerce tax manner.

### **Regulation with tax impact**

Among the Decrees issued by the National Government during 2017, it is convenient to refer to the following because of their impact:

- Decree 1650 of 2017, which purpose is to regulate the way to access tax benefits related to companies incorporated in the most affected zones by the Armed Conflict - ZOMAC; in this respect it provides who can access these benefits, what type of benefits are applicable in the income and complementary tax and the requirement for incorporation of the company, initiation of activities, amount of investment and generation of employment.
- Decree 1915 of 2017 determines the manner how part of the payment of the income and complementary tax can be made, through the execution of work in the ZOMACs; this benefit permits the taxpayer to make the direct investment for up to fifty percent (50%) of the tax payable determined in the income and complementary tax return, for the execution of projects made viable and that are a priority and have social transcendence in the different municipalities defined as ZOMAC, thus extinguishing in this manner part of the tax obligation payable.
- Decree 1998 of 2017, regulates the obligation for the taxpayer to make during each taxable period the tax reconciliation, as control mechanism for the recording of differences that arise between the application of the technical regulatory accounting frameworks and the provisions of the Tax Code, based on two elements: the detail control and the tax reconciliation report; its purpose is that the taxpayers, based on the economic events recorded based on the accounting technique, will be able to arrive at the determination of taxation basis, maintaining the traceability of the information and will serve as support for the explanation of the differences.

### **37.2 Conciliation of effective rate**

The reconciliation between the applicable tax rate and the effective rate and the composition of the income tax expense for periods 2017 and 2016 is the following:

| Income and complementary tax                                                                        | 2017             | %           | 2016             | %          |
|-----------------------------------------------------------------------------------------------------|------------------|-------------|------------------|------------|
| <b>Result before taxes</b>                                                                          | <b>2.671.396</b> |             | <b>2.236.340</b> |            |
| <b>Theoretical tax</b>                                                                              |                  |             |                  |            |
| <b>Plus items that increase the income</b>                                                          | <b>1.455.195</b> | <b>54%</b>  | <b>762.110</b>   | <b>34%</b> |
| Wealth tax                                                                                          | 27.842           |             | 69.782           |            |
| Dividends effectively received from controlled companies                                            | 343.806          |             | 331.851          |            |
| Other non-deductible costs and expenses                                                             | 420.505          |             | 360.477          |            |
| IFRS Ratings                                                                                        | 99.715           |             | -                |            |
| Amortized Cost Adjustment                                                                           | 563.327          |             | -                |            |
| <b>Less items that reduce the income</b>                                                            | <b>3.359.367</b> | <b>126%</b> | <b>2.104.086</b> | <b>94%</b> |
| Deduction of real productive fixed assets                                                           | 792.906          |             | 725.851          |            |
| Other not taxed                                                                                     | 203.495          |             | 232.832          |            |
| Excess of tax over accounting depreciation and amortization                                         | 393.401          |             | 365.753          |            |
| Dividends not taxed                                                                                 | 126.995          |             | 63.752           |            |
| Differences IFRS vs. GAAP                                                                           | -                |             | (219.454)        |            |
| Others                                                                                              | 407.841          |             | 935.352          |            |
| Participation method                                                                                | 480.589          |             | -                |            |
| Bank expenses, commissions and interest credit operations                                           | 592.784          |             | -                |            |
| IFRS income                                                                                         | 206.040          |             | -                |            |
| Derivative liquidation                                                                              | 127.612          |             | -                |            |
| Recoveries by impairment                                                                            | 27.704           |             | -                |            |
| <b>Net ordinary income of the period</b>                                                            | <b>767.224</b>   | <b>29%</b>  | <b>894.364</b>   | <b>40%</b> |
| Less Exempt Income                                                                                  | 54.118           |             | 39.564           |            |
| <b>Net taxable income</b>                                                                           | <b>713.106</b>   | <b>27%</b>  | <b>854.800</b>   | <b>38%</b> |
| Income tax rate (average)                                                                           | 34%              |             | 25%              |            |
| CREE tax rate                                                                                       | 0%               |             | 9%               |            |
| CREE surtax rate                                                                                    | 0%               |             | 6%               |            |
| Surtax rate                                                                                         | 6%               |             | 0%               |            |
| Occasional income tax rate                                                                          | 10%              |             | 10%              |            |
| Income tax rate (average)                                                                           | 242.852          | 9%          | 213.700          | 10%        |
| CREE tax rate                                                                                       | -                | 0%          | 142.430          | 6%         |
| CREE surtax rate                                                                                    | -                | 0%          | 94.906           | 4%         |
| Surtax                                                                                              | 44.425           | 2%          | -                | 0%         |
| Occasional income tax                                                                               | -                | 0%          | 2.583            | 0%         |
| Less tax discounts                                                                                  | (124.778)        | -5%         | (67.313)         | -3%        |
| Adjustments recognized in the current period related to the current income tax of previous periods. | 13.933           | 1%          | 20.198           | 1%         |
| <b>Current tax and CREE</b>                                                                         | <b>176.432</b>   | <b>7%</b>   | <b>406.504</b>   | <b>18%</b> |
| <b>Detail of current and deferred expense</b>                                                       |                  |             |                  |            |
| Current tax and CREE                                                                                | 176.432          | 7%          | 406.504          | 18%        |
| Deferred tax                                                                                        | 306.775          | 11%         | (4.956)          | 0%         |
| <b>Income tax</b>                                                                                   | <b>483.207</b>   | <b>18%</b>  | <b>401.548</b>   | <b>18%</b> |

Amounts expressed in millions of Colombian pesos -

<sup>1</sup>It is composed by IFRS items such as: fair value, amortized cost, implicit interest, impairment and provisions.

### 37.3 Income tax recognized in profit or loss

The most significant components of income tax expense at the cut-off date are:

| Income tax                                                                                       | 2017           | 2016           |
|--------------------------------------------------------------------------------------------------|----------------|----------------|
| <b>Current income tax</b>                                                                        |                |                |
| Expenditure on current income tax                                                                | 287.277        | 453.619        |
| Adjustments recognized in the current period related to current income tax from previous periods | 13.933         | 20.198         |
| Tax benefits of tax losses, tax credits or temporary differences used in the period              | (124.778)      | (67.313)       |
| <b>Total current income tax</b>                                                                  | <b>176.432</b> | <b>406.504</b> |
| <b>Deferred tax</b>                                                                              |                |                |
| Net expense due to deferred tax related with the origin and reversal of temporary differences    | 306.775        | 97.121         |
| Expense (income) net due to deferred tax related with changes in tax rates or laws <sup>1</sup>  | -              | (101.829)      |
| Reclassification of deferred tax from equity to income statement                                 | -              | (248)          |
| <b>Total deferred tax</b>                                                                        | <b>306.775</b> | <b>(4.956)</b> |
| <b>Income tax</b>                                                                                | <b>483.207</b> | <b>401.548</b> |

*Amounts expressed in millions of Colombian pesos -*

The rates used to determine the deferred tax are:

| Year               | 2017       | 2018       | 2019       | 2020       | 2021       |
|--------------------|------------|------------|------------|------------|------------|
| Rent               | 25%        | 34%        | 33%        | 33%        | 33%        |
| Occasional profits | 10%        | 10%        | 10%        | 10%        | 10%        |
| CREE               | 9%         | 0%         | 0%         | 0%         | 0%         |
| About rate         | 6%         | 3%         | 0%         | 0%         | 0%         |
| <b>Total rate</b>  | <b>50%</b> | <b>47%</b> | <b>43%</b> | <b>43%</b> | <b>43%</b> |

| Concept                                          | 2017           | 2016            |
|--------------------------------------------------|----------------|-----------------|
| <b>Asset or liability for current income tax</b> |                |                 |
| <b>Total income tax liability</b>                | -              | <b>(55.665)</b> |
| Income tax                                       | -              | (16.798)        |
| CREE tax and surtax                              | -              | (38.867)        |
| <b>Total income tax asset</b>                    | <b>237.389</b> | -               |
| Balances in favor for income tax                 | 237.389        | -               |
| <b>Total income tax asset (liability)</b>        | <b>237.389</b> | <b>(55.665)</b> |

*Amounts expressed in millions of Colombian pesos -*

### 37.4 Income tax recognized in other comprehensive income

The detail of the tax effect corresponding to each component of “other comprehensive income” of the Consolidated Statement of comprehensive income is the following:



| Other statement of comprehensive income accumulated                          | 2017           |                 |                  | 2016           |                 |                |
|------------------------------------------------------------------------------|----------------|-----------------|------------------|----------------|-----------------|----------------|
|                                                                              | Gross          | Tax effect      | Net              | Gross          | Tax effect      | Net            |
| <b>Items that will not be reclassified after the result of the period</b>    |                |                 |                  |                |                 |                |
| Reclassification of properties, plant and equipment to investment properties | -              | -               | -                | 9.700          | (956)           | 8.744          |
| New measurements of defined benefit plans                                    | (18.735)       | 8.642           | (10.093)         | (36.268)       | 17.771          | (18.497)       |
| Equity investments measured at fair value through equity                     | 475.220        | (43.802)        | 431.418          | 554.390        | (107.982)       | 446.408        |
| Participation in other comprehensive income of subsidiaries                  | 114.374        | (122)           | 114.252          | (117.151)      | 23.998          | (93.153)       |
| <b>Items that can be reclassified after the result of the period</b>         |                |                 |                  |                |                 |                |
| Cash flow hedges                                                             | (5.142)        | 8.377           | 3.235            | (23.738)       | 11.834          | (11.904)       |
| Participation in the other comprehensive result of subsidiaries              | 10.219         | 21              | 10.240           | (136.826)      | (505)           | (137.331)      |
| <b>Total</b>                                                                 | <b>575.936</b> | <b>(26.884)</b> | <b>(549.052)</b> | <b>250.107</b> | <b>(55.840)</b> | <b>194.267</b> |

Amounts expressed in millions of Colombian pesos -

## 37.5 Deferred Tax

The detail of the deferred tax is:

| Deferred tax                  | 2017             | 2016             |
|-------------------------------|------------------|------------------|
| Deferred tax assets           | 1.400.719        | 1.402.505        |
| Deferred tax liabilities      | 3.722.095        | 3.390.324        |
| <b>Total deferred tax net</b> | <b>2.321.376</b> | <b>1.987.819</b> |

Amounts expressed in millions of Colombian pesos -

### 37.5.1. Deferred tax assets

| Deferred tax assets                  | Initial balance  | Net changes included in profit an loss | Changes included in OCI | Final balance    |
|--------------------------------------|------------------|----------------------------------------|-------------------------|------------------|
| <b>Assets</b>                        | <b>655.401</b>   | <b>(176.066)</b>                       | -                       | <b>479.335</b>   |
| Property, plant and equipment        | 305.595          | (64.369)                               | -                       | 241.226          |
| Intangibles                          | 1.550            | 14.944                                 | -                       | 16.494           |
| Investment properties                | 2.699            | (105)                                  | -                       | 2.594            |
| Investment and financial instruments | 96.182           | (80.995)                               | -                       | 15.187           |
| Accounts receivable                  | 211.941          | (22.002)                               | -                       | 189.939          |
| Inventories                          | 3.658            | (3.652)                                | -                       | 6                |
| Other assets                         | 33.777           | (19.888)                               | -                       | 13.889           |
| <b>Liabilities</b>                   | <b>747.105</b>   | <b>163.672</b>                         | <b>10.607</b>           | <b>921.384</b>   |
| Credits and loans                    | 243.761          | (166.584)                              | -                       | 77.177           |
| Accounts payable                     | 36.366           | 16.105                                 | -                       | 52.471           |
| Employees benefits                   | 91.556           | 181.352                                | 2.230                   | 275.138          |
| Derivatives                          | 12.082           | 4.526                                  | 8.377                   | 24.985           |
| Provisions                           | 162.272          | (3.712)                                | -                       | 158.560          |
| Other liabilities                    | 201.068          | 131.985                                | -                       | 333.053          |
| <b>Deferred tax asset</b>            | <b>1.402.506</b> | <b>(12.395)</b>                        | <b>10.607</b>           | <b>1.400.719</b> |

Amounts expressed in millions of Colombian pesos -

### 37.5.2. Deferred tax liabilities

| Deferred tax liabilities                  | Initial balance  | Net changes included in profit an loss | Changes included in OCI | Final balance    |
|-------------------------------------------|------------------|----------------------------------------|-------------------------|------------------|
| <b>Assets</b>                             | <b>2.920.486</b> | <b>138.477</b>                         | <b>43.801</b>           | <b>3.102.764</b> |
| Property, plant and equipment             | 2.623.752        | 102.451                                | -                       | 2.726.203        |
| Intangibles                               | 26.973           | 17.450                                 | -                       | 44.424           |
| Investment properties                     | 6.150            | 1.309                                  | -                       | 7.459            |
| Investment and financial instruments      | 113.526          | 60.829                                 | 43.801                  | 218.155          |
| Accounts receivable                       | 104.372          | (11.020)                               | -                       | 93.352           |
| Cash and cash equivalents                 | -                | -                                      | -                       | -                |
| Inventories                               | 3.253            | (3.247)                                | -                       | 7                |
| Other assets                              | 42.459           | (29.295)                               | -                       | 13.164           |
| <b>Liabilities</b>                        | <b>469.838</b>   | <b>155.905</b>                         | <b>(6.412)</b>          | <b>619.331</b>   |
| Credits and loans                         | 121.414          | (112.640)                              | -                       | 8.774            |
| Accounts payable                          | 112.274          | 12.378                                 | -                       | 124.652          |
| Employees benefits                        | 148.719          | 90.550                                 | (6.412)                 | 232.857          |
| Provisions                                | 5.792            | (474)                                  | -                       | 5.318            |
| Other liabilities                         | 81.639           | 166.092                                | -                       | 247.731          |
| <b>Deferred tax liability</b>             | <b>3.390.324</b> | <b>294.382</b>                         | <b>37.389</b>           | <b>3.722.095</b> |
| <b>Total deferred tax asset/liability</b> | <b>1.987.818</b> | <b>306.777</b>                         | <b>26.782</b>           | <b>2.321.376</b> |

Amounts expressed in millions of Colombian pesos -

### 37.5.3 Temporary differences

Temporary differences on which no deferred tax was generated were, inter alia, investments in subsidiaries, associates and joint ventures, amount to ascienden a \$2,216,124 (2016: \$511,827).

The most significant items on which there were temporary differences are the following:

In assets, the higher impact arises by the temporary differences in property, plant and equipment by virtue of purchase and sale operations of assets between companies of the EPM Group, which implies the generation of unrealized profits and by the valuation at amortized cost of the long term accounts receivable.

Regarding liabilities, the items that impact the calculation of the deferred tax are for the most part, the liquidation of the provision corresponding to quotas, pension bonds, actuarial calculation in pensions and the pension commutation of EADE, credits and loans for the amortized cost valuation of bonds, securities issued, credits and loans.

The temporary differences over which no deferred tax was generated were, among others, investments in subsidiaries, associates and joint ventures, in accordance with paragraph 39 of IAS 12; likewise, in the items that do not have future fiscal consequences, as it is the case of tax liabilities and the financial returns generated in the assets of the plan, since these correspond to exempt income.

The approval of dividends after the presentation date and before the financial statements were authorized for its publication, does not generate income tax consequences since it is established as a policy for national subsidiaries, that only profits and non-taxed reserves are distributed. The tax effects that may be generated by the dividends decreed by foreign subsidiaries are offset by the use of discounts for taxes paid abroad. Deferred tax liability is calculated on the dividends expected to be received in the foreseeable future of foreign subsidiaries, applying the rate corresponding to the Colombian rate differential and the country from which the dividends are expected to be received.

## Nota 38. Information to be disclosed about related parties

EPM is a decentralized entity of the municipal order, whose only owner is the Municipality of Medellín. The capital with which it was constituted and operates, as well as its equity, is of public nature. The Mayor of Medellín presides the Board of Directors of EPM.

As related parties of the EPM Group are considered the subsidiaries, associates, joint ventures, including the subsidiaries of the associates and joint ventures, key management personnel, as well as the entities on which the key management personnel may exercise control or joint control and the post-employment benefit plans for benefit of the employees.

The total value of the transactions made by the company with its related parties during the corresponding period is presented as follows:

| Transactions and balances with related parties                        | Revenues <sup>(1)</sup> | Costs/ Expenses <sup>(2)</sup> | Amounts receivable <sup>(3)</sup> | Amounts payable <sup>(4)</sup> | Guarantees and guarantees received <sup>(5)</sup> |
|-----------------------------------------------------------------------|-------------------------|--------------------------------|-----------------------------------|--------------------------------|---------------------------------------------------|
| <b>Subsidiaries:</b>                                                  |                         |                                |                                   |                                |                                                   |
| 2017                                                                  | 498.247                 | 145.825                        | 1.438.242                         | 55.476                         | -                                                 |
| 2016                                                                  | 404.314                 | 151.205                        | 1.721.149                         | 51.424                         | -                                                 |
| <b>Associates:</b>                                                    |                         |                                |                                   |                                |                                                   |
| 2017                                                                  | 37.519                  | 29.772                         | 2.251                             | 7.046                          | -                                                 |
| 2016                                                                  | <b>38.066</b>           | 44.643                         | 5.079                             | 8.732                          | -                                                 |
| <b>Key management personnel of the company or its parent company:</b> |                         |                                |                                   |                                |                                                   |
| 2017                                                                  | -                       | 7.024                          | 1.597                             | 1.173                          | -                                                 |
| 2016                                                                  | -                       | 6.075                          | 165                               | 530                            | 274                                               |
| <b>Other related parties:</b>                                         |                         |                                |                                   |                                |                                                   |
| 2017                                                                  | 103.389                 | 77.558                         | 9.837                             | 575.524                        | -                                                 |
| 2016                                                                  | 127.003                 | 122.723                        | 46.244                            | 307.628                        | -                                                 |

*Amounts expressed in millions of Colombian pesos -*

The transactions between the EPM and its related parties were made in conditions equivalent to those that exist in transactions between independent parties, as refers to their object and conditions.

<sup>1</sup> The detail of the income obtained by the company from its related parties is as follows:

|                       | Income                     | 2017    | 2016    |
|-----------------------|----------------------------|---------|---------|
| Subsidiaries          | Sale of goods and services | 398.565 | 315.128 |
|                       | Interests                  | 79.252  | 48.467  |
|                       | Fees                       | 4.445   | 28.269  |
|                       | Others                     | 15.984  | 12.450  |
| Associates            | Sale of goods and services | 36.755  | 32.405  |
|                       | Others                     | 764     | 5.661   |
| Other related parties | Sale of goods and services | 96.898  | 124.953 |
|                       | Interests                  | 80      | 154     |
|                       | Fees                       | 96      | -       |
|                       | Others                     | 6.315   | 1.896   |

*- Amounts expressed in millions of Colombian pesos -*

<sup>2</sup> The detail of the costs and expenses incurred by the company with its related parties is as follows:

|                       | Costs and expenses                | 2017    | 2016    |
|-----------------------|-----------------------------------|---------|---------|
| Subsidiaries          | Acquisition of goods and services | 144.445 | 150.509 |
|                       | Fees                              | 1.380   | 696     |
| Associates            | Acquisition of goods and services | 29.043  | 37.511  |
|                       | Interests                         |         |         |
|                       | Fees                              | 729     | 7.132   |
| Other related parties | Acquisition of goods and services | 42.147  | 4.740   |
|                       | Interests                         | -       | 3       |
|                       | Fees                              | 696     | 626     |
|                       | Others                            | 34.715  | 117.354 |

- Amounts expressed in millions of Colombian pesos -

<sup>3</sup> The detail of the loans granted by the company to its related parties is as follows:

|                                                  | Granted loans | Original currency | term      | Nominal interest rate | 2017             |                      |                  | 2016             |                      |                  |
|--------------------------------------------------|---------------|-------------------|-----------|-----------------------|------------------|----------------------|------------------|------------------|----------------------|------------------|
|                                                  |               |                   |           |                       | Nominal value    | Amortized cost value | Total value      | Nominal value    | Amortized cost value | Total value      |
| Hidroecológica del Teribe S.A. HET               | Loan 1        | USD               | 23 Años   | 5,764%                | 355.095          | 30.922               | 386.017          | 371.058          | 13.224               | 384.282          |
| EPM Chile S.A.                                   | Loan 1        | USD               | 15.7 Años | 5,334%                | 287.648          | 26                   | 287.674          | 289.094          | 15                   | 289.109          |
| Inversiones y Asesorías South Water Services SpA | Loan 1        | USD               | 7 Años    | 4,861%                | 585.794          | 5.097                | 590.891          | 578.739          | (136)                | 578.603          |
|                                                  | Préstamo 2    | USD               | 7 Años    | 5,471%                | 462.895          | 6.312                | 469.207          | 469.322          | (166)                | 469.156          |
| <b>Total</b>                                     |               |                   |           |                       | <b>1.691.432</b> | <b>42.357</b>        | <b>1.733.789</b> | <b>1.708.214</b> | <b>12.936</b>        | <b>1.721.150</b> |

- Amounts expressed in millions of Colombian pesos -

<sup>4</sup> The detail of the loans received by the company from its related parties is as follows:

|                                        | Granted loans | Original currency | term  | Nominal interest rate | 2017          |                      |               | 2016          |                      |             |
|----------------------------------------|---------------|-------------------|-------|-----------------------|---------------|----------------------|---------------|---------------|----------------------|-------------|
|                                        |               |                   |       |                       | Nominal value | Amortized cost value | Total value   | Nominal value | Amortized cost value | Total value |
| Empresas Varias de Medellín S.A.E.S.P. | Préstamo 1    | COP               | 1 año | DTF + 2,44%           | 35.000        | 1.415                | 36.415        | -             | -                    | -           |
| <b>Total</b>                           |               |                   |       |                       | <b>35.000</b> | <b>1.415</b>         | <b>36.415</b> | <b>-</b>      | <b>-</b>             | <b>-</b>    |

### Transactions and balances with related government entities

The total of financial surpluses paid to the Municipality of Medellín to December 2017 was \$1,309,136 (2016 \$816,521).

### Remuneration to the Board of Directors and key personnel of the Group:

Members of the key management personnel in the company include:

| Concept                                             | 2017         | 2016         |
|-----------------------------------------------------|--------------|--------------|
| Salaries and other short-term benefits to employees | 6.323        | 5.101        |
| Pensions and other post-employment benefits         |              |              |
| Other long-term benefits to employees               | 701          | 974          |
| Contract termination benefits                       |              |              |
| <b>Remuneration to key management personnel</b>     | <b>7.024</b> | <b>6.075</b> |

*Amounts expressed in millions of Colombian pesos -*

The amounts disclosed are those recognized as cost or expense during the period report for compensation of key personnel of EPM Group.

## Nota 39. Capital Management

The capital of the EPM Group includes indebtedness through the capital market, commercial bank, development banks, central bank and multilateral bank, at a national and international level.

EPM Group manages its capital in order to plan, manage and assess the obtaining of financial resources in the national and international financial markets, for strategic investments, investment projects, through the different options that optimize the cost, that guarantee the maintenance of adequate financial indicators and adequate credit rating and minimize the financial risk. For the above, the following capital management policies and processes have been defined.

**Financial management:** Financial management corresponds to the performance of all long term credit operations, in order to guarantee the timely availability of the resources required for the normal operation of the company and to materialize the investment and growth decisions, optimizing the financing costs.

The Group has not made any changes to its objectives, policies and capital management processes during the period ended as of December 31, 2017 and December of 2016.

In order to face the changes in the economic conditions, the Group implements proactive management mechanisms for their financing, enabling up to where it is viable different financing alternatives, in such a way that at the time that the performance of any long term credit operation is required, there will be access to the source that has availability at each time of competitive market conditions and as timely as necessary.

Following are presented the values that the EPM Group manages as capital:

|                                   | 2017              | 2016              |
|-----------------------------------|-------------------|-------------------|
| <b>Bonds and loans</b>            |                   |                   |
| Other bonds and securities issued | 8.240.198         | 6.135.271         |
| Commercial banking loans          | 1.113.156         | 1.801.972         |
| Multilateral banking loans        | 1.668.269         | 1.664.555         |
| Development banking loans         | 919.922           | 963.111           |
| Bonds and securities issued       | 469.370           | 255.780           |
| Other loans                       | 36.415            | -                 |
| <b>Total debt</b>                 | <b>12.447.330</b> | <b>10.820.689</b> |
| <b>Total capital</b>              | <b>12.447.330</b> | <b>10.820.689</b> |

*Amounts expressed in millions of Colombian pesos-*

## Nota 40. Financial risk management objectives and policies

The Group is exposed to the financial risk, which is defined as the possibility of occurrence of an event that affects negatively the financial results, among which is the market risk, liquidity risk, credit risk and operating risk.

The market risk refers to the changes or volatility of market variables that can generate economic losses. The market variables refer to exchange rates, interest rates, securities, commodities, among others; and their changes may impact, for example, the financial statements, cash flow, financial indicators, contracts, project viability and investments.

The credit risk refers to the possible default of payment obligations by third parties derived from contracts or financial transactions performed.

The liquidity risk is the scarcity of funds and inability to obtain the resources at the time they are required to cover the contractual obligation and carry out investment strategies. The scarcity of funds leads to the need to sell assets or contract financing operations in unfavorable market conditions.

Finally, the operating risk, from a financial standpoint, is defined as deficiencies or failures in the processes, technology, infrastructure, human resources or occurrence of unforeseen external events.

The objective of the Integral Risk Management Office is to lead the definition and implementation of the strategy for an integral risk management, in order to achieve an adequate protection and assurance of the goods, resources and interest of the EPM Group.

The Group has as policy to carry out the management of the risks that have an incidence on its activity and environment, by adopting the best practices and international standards of Integral Risk Management (IRM), as a way to facilitate the achievement of the purpose, strategy, objective and business goals, both of statutory and legal origin. It has an information system that facilitates the integral management of risks, guarantees confidentiality, availability and reliability of information and permits to make analysis and monitoring of risks and improvement plans. It has implemented an internal risk management system and has in place a methodology for the identification, analysis, evaluation, control and monitoring of risks, among which are those associated to money laundering and financing of terrorism, that permits to reduce vulnerability, and propose and implement efficient mechanism for the proper performance of business, processes, projects and contracts. As valuation criteria the Group has valuation tables of the consequences of the materialization of risks and of the probability tables, which are applicable in the different management levels defined in the methodological guide for integral risk management.

The integral risk management monitoring and review activity is aligned with the process of follow up of the management established in the Group, in order to propose and implement improvement actions. The monitoring and review scheme established assesses, among others, the following aspects:

- The implementation strategy of the integral risk management.
- The changes in the internal and external context that imply making adjustments in the treatment of risks identified or those that generate new risks.
- The variation of the risks in terms of frequency, probability and consequence.
- The valuation criteria of probability and consequence of risks.
- The establishment and efficacy of treatment plans.

The Group manages the financial risks associated to the different management levels, for which it identifies the risks within market, liquidity and credit congregators that are classified in the category of financial risks and quantifies their impact and implements strategy for their mitigation.

### 40.1. Market Risk

Market Risk is the risk that the fair value of the future cash flows of a financial instrument may fluctuate due to changes in market prices. The Group has identified that financial instruments affected by market risk include:

- Cash and cash equivalents
  - Fiduciary charges
- Other financial assets:
  - Fixed income securities
  - Pledged investments or delivered in guarantee
  - Swaps

The methods and hypotheses used when preparing the sensitivity analysis consist of:

- For cash and cash equivalents, fixed income securities and pledged investments or delivered in guarantee: the methodology used to measure market risk is the Value at Risk, consisting of the quantification of the maximum loss that the portfolio could present in a month with a confidence level of 95%. For the quantification of the VaR, is used a methodology defined within the EPM Group.
- For swaps, sensitivity analyzes were carried out under the assumption of keeping constant the hedges contracted according to their indexation rates.

#### 40.2. Interest Rate Risk

Interest Rate Risk is the risk that the fair value or future cash flows of a financial instrument may fluctuate as a result of changes in market interest rates. The Group has identified that financial instruments affected by interest rate risk include:

- Cash and cash equivalents
  - Fiduciary charges
- Other financial assets:
  - Fixed income securities
  - Pledged investments or delivered in guarantee
  - Swaps
- Credits and loans
- Trade debtors and other accounts receivable

The concentration of interest rate risk appears when there are large individual exposures and when there are significant exposures to counterparties whose probability of default is determined by factors such as the economic sector, currency and credit ratings. Interest rate risk management seeks to preserve capital and maintain or increase profitability. The EPM Group has defined policies on risk in interest rates, through the identification of risks, the determination of the position of rates and the simulation of possible hedging strategies. This supports the decision making, which are oriented to maintain the position or cover it, and subsequently an analysis of the results of the strategies executed is performed.

#### Analysis of sensitivity to interest rates

The following table indicates the sensitivity to a possible reasonable change in the interest rates of financial instruments exposed to this risk, without considering the effect of hedge accounting. Keeping all other variables constant, the pre-tax profit / loss and EPM Group's equity would be affected by changes in variable interest rates as follows:

|                                                                                                | Increase/decrease in basic points | Financial effect     |               |
|------------------------------------------------------------------------------------------------|-----------------------------------|----------------------|---------------|
|                                                                                                |                                   | In profit before tax | In the equity |
| <b>2017</b>                                                                                    |                                   |                      |               |
| <b>Financial assets measured at fair value through profit or loss</b>                          |                                   |                      |               |
| Investments at fair value through profit or loss                                               | 100                               | 31                   | (31)          |
|                                                                                                | (100)                             | 24                   | (24)          |
| <b>Financial assets measured at amortized cost</b>                                             |                                   |                      |               |
| Accounts receivable in foreign currency                                                        | 100                               | 16.709               | 13.367        |
|                                                                                                | (100)                             | (16.709)             | (13.367)      |
| <b>Financial liabilities measured at amortized cost</b>                                        |                                   |                      |               |
| Credits and loans                                                                              | 100                               | (91.839)             | (73.471)      |
|                                                                                                | (100)                             | 91.839               | 73.471        |
| <b>Financial liabilities measured at fair value with changes in other comprehensive income</b> |                                   |                      |               |
| Derivative instruments                                                                         | 100                               | 303                  | (11.956)      |
|                                                                                                | (100)                             | (303)                | 12.576        |
| <b>2016</b>                                                                                    |                                   |                      |               |
| <b>Financial assets measured at fair value through profit or loss</b>                          |                                   |                      |               |
| Investments at fair value through profit or loss                                               | 100                               | 34.549               | 27.639        |
|                                                                                                | (100)                             | (31.089)             | (24.871)      |
| <b>Financial assets measured at amortized cost</b>                                             |                                   |                      |               |
| Accounts receivable in foreign currency                                                        | 100                               | 18.093               | 14.474        |
|                                                                                                | (100)                             | (18.093)             | (14.474)      |
| <b>Financial liabilities measured at fair value with changes in other comprehensive income</b> |                                   |                      |               |
| Credits and loans                                                                              | 100                               | (71.190)             | (56.952)      |
|                                                                                                | (100)                             | 71.798               | 57.438        |
| <b>Financial liabilities measured at fair value with changes in other comprehensive income</b> |                                   |                      |               |
| Derivative instruments                                                                         | 100                               | -                    | 104.821       |
|                                                                                                | (100)                             | -                    | (43.772)      |

- Amounts expressed in millions of Colombian pesos -

The EPM Group considers that the sensibility analysis is representative in respect to the exposure of the interest rate risk.

#### 40.3. Exchange Rate Risk

Exchange rate risk is the risk that the fair value or the future cash flows of a financial instrument may fluctuate as consequence of the exchange rate variations.

The Group has identified that financial instruments affected by the exchange rate risk include:

- Cash and cash equivalents
- Other financial assets:



- Fixed income securities
- Swaps
- Credits and loans
- Trade debtors and other account receivables
  - Loans to economic associates

The exchange risk exposure refers, first, to the financing activities in a currency different from the functional currency and with the hedging operations contracted. The Group manages its exchange rate risks through hedging operations in a medium term horizon. It is the Group's policy not to close speculative hedging operations, and thus the conditions of the derivative hedging instrument reply the underlying conditions in order to maximize the efficacy of the hedging. The Group covers its exposure to fluctuations in the exchange rate using different hedging instruments among which are worth mentioning swaps, forwards and options at different terms.

#### **Sensitivity analysis to exchange rates**

The following table indicates the sensibility in respect to a possible reasonable change in exchange rates of \$100 pesos in the currency against the United States dollar not considering the effect of the hedging accounting. The impact originates by the change in monetary and non-monetary assets. Maintaining the rest variables constant the profit/loss before taxes and equity of the Group would be affected by changes in the exchange rates as follows:

|                                                                                                    | Increase/decrease<br>in basic points | Financial effect        |                  |
|----------------------------------------------------------------------------------------------------|--------------------------------------|-------------------------|------------------|
|                                                                                                    |                                      | In profit<br>before tax | In the<br>equity |
| <b>2017</b>                                                                                        |                                      |                         |                  |
| <b>Financial assets measured at fair value through profit or loss</b>                              |                                      |                         |                  |
| Other financial assets -Tfixed income securities                                                   | 100                                  | 30                      | 24               |
|                                                                                                    | (100)                                | (30)                    | (24)             |
| Cash and cash equivalents                                                                          | 100                                  | 251                     | 201              |
|                                                                                                    | (100)                                | (251)                   | (201)            |
| <b>Financial assets measured at amortized cost</b>                                                 |                                      |                         |                  |
| Account receivable in foreign currency                                                             | 100                                  | 6.505                   | 5.204            |
|                                                                                                    | (100)                                | (6.505)                 | (5.204)          |
| <b>Financial liabilities measured at amortized cost</b>                                            |                                      |                         |                  |
| Credits and loans                                                                                  | 100                                  | (121.820)               | (97.456)         |
|                                                                                                    | (100)                                | 121.820                 | 97.456           |
| <b>Financial liabilities measured at fair value with changes<br/>in other comprehensive income</b> |                                      |                         |                  |
| Derivative instruments                                                                             | 100                                  | 59.183                  | 47.346           |
|                                                                                                    | (100)                                | (59.183)                | (47.346)         |
| <b>2016</b>                                                                                        |                                      |                         |                  |
| <b>Financial assets measured at fair value through profit or loss</b>                              |                                      |                         |                  |
| Cash and cash equivalents                                                                          | 100                                  | 2.155                   | 1.724            |
|                                                                                                    | (100)                                | (2.155)                 | (1.724)          |
| <b>Financial assets measured at amortized cost</b>                                                 |                                      |                         |                  |
| Account receivable in foreign currency                                                             | 100                                  | 57.358                  | 45.886           |
|                                                                                                    | (100)                                | (57.358)                | 45.886           |
| <b>Financial liabilities measured at amortized cost</b>                                            |                                      |                         |                  |
| Credits and loans                                                                                  | 100                                  | (68.600)                | (54.880)         |
|                                                                                                    | (100)                                | 32.567                  | 26.054           |
| <b>Financial liabilities measured at fair value with changes<br/>in other comprehensive income</b> |                                      |                         |                  |
| Derivative instruments                                                                             | 100                                  | 191.085                 | 152.868          |
|                                                                                                    | (100)                                | 9.633                   | 7.707            |

Amounts expressed in millions of Colombian pesos -

The Group considers that the sensibility analysis is representative in respect to the exposure of the exchange rate risk.

#### 40.4. Credit Risk

The credit risk is the risk that one of the counterparts does not comply with the obligations derived from a financial instrument or purchase contract and that this will translate in a financial loss. The Group has identified that the financial instruments affected by the credit risk include:

- Cash and cash equivalents
- Other financial assets:
  - Fixed income securities
  - Pledged investments or delivered in guarantee
  - Swaps
- Trade debtors and other account receivables

Credit risk management by type of financial instrument is detailed below:

- **Cash and cash equivalents, fixed income securities and pledged investments or delivered in guarantee:** For credit risk management, the Group assigns limits by issuer, by counterpart and by intermediary taking into account the financial, risk and fundamental analysis of the entities, emphasizing on equity support of shareholders. The methodology considers the characteristics proper of the investments portfolio and the regulations applicable. The credit risk concentration is limited since it is due to the provisions of the business rules manual for treasury operations. The description of the factors that define the risk concentration is detailed below:
  - The limits are updated quarterly based on the latest financial statements available of the entities analyzed.
  - When the value of the consolidated investment portfolio exceeds the equivalent of 10,000 minimum monthly legal salaries in effect (MMLSE), no more than 20% of this value should not be concentrated in a single issuer, counterpart or intermediary with the exception of securities issued by governments that comply with the regulations in effect.
  - Stock market intermediaries, other than the monitored banking institutions, may act as counterparts to perform operations, but cannot be considered as admissible issuers.
  - Stock broker companies that act as counterpart of the treasury operations must have at least the second risk rating in strength or quality in the portfolio administration.
  - Stock broker companies supported by banks, that is, banked counterparts, must have a minimum equity of 30,000 MMLSE.

Finally, the actions to avoid risk concentration are intended to establish, analyze, follow up and control the limits, for which they control the limits in effects and the status of utilization thereof. On the other hand, the justifications related to the need to override the limits temporarily are submitted to approval.

The investments to which are referred are constituted with banking establishments that have the following risk rating, according to the term of the investment, as follows:

- For investments with a term equal to or less than one (1) year, the banking establishment must have a current rating corresponding to the maximum category for the short term according to the scales used by the rating agencies that grant it and have at least with the second best current rating for the long term used by the respective companies;
- For investments with a term greater than one (1) year, the banking establishment must have the highest current rating for the long term according to the scale used by the rating agencies and the maximum rating for the short term according to the scale used for this term.

- **Swaps:** EPM is exposed to the risk that a counterparty does not recognize the right and to mitigate it, previously evaluates the risk level of each of the entities with which it estimates to carry out an operation.
- **Trade debtors and other account receivables:** EPM is exposed to the risk that users of domiciliary public utilities will default or not pay for such services. Accounts receivable from debtors of domiciliary public utilities are classified into two large groups: those originated by default in payment and the other group corresponds to the financing or payment agreements with customers that are made as a receivable recovery strategy or for the linking of new clients.

EPM evaluates the behavior and value of accounts receivable at the end of each period to determine if there is objective evidence that the receivable is impaired and identify its possible impact on future cash flows. The criteria used to determine that there is objective evidence of an impairment loss are:

- Non-compliance of clients in the payment of two (2) or more collection accounts.
- It is known or there is evidence that the client enters into processes of corporate restructuring or insolvency or liquidation.
- There are social alterations, of public order or natural disasters, which according to the experience are directly correlated with the non-payment of the collection accounts.

In order to avoid an excessive concentration of risk, EPM has developed and put into operation various strategies that allow it to mitigate the risk of non-payment of the receivable, among which are:

- Persuasive collection by making phone calls and sending letters to customers with the support of specialized collection agencies.
- Segmentation of clients that allow identifying those with the highest risk, due to their value, to carry out personalized collection activities with them.
- Possibility of making payment agreements or partial payments that lead to the recovery of the exposed capital.
- Compensation of accounts receivable against accounts payable by EPM with client-suppliers.
- When the previous strategies do not generate satisfactory results, coercive collection actions are carried out through the suspension and cutting of the service.
- If the previous strategies do not give satisfactory results, the collection of the receivable through the judicial process is proceeded.

Likewise, an attempt is made to expand the product portfolio to customers in such a way as to facilitate debt payment, e.g. energy and prepaid water.

As mentioned, EPM makes payment or financing agreements, which are carried out as a strategic recovery of the receivable or for linking new clients. These, give right to fixed or determinable payments and are included in current assets, except those with maturity greater than 12 months from the date of generation of the balance sheet, in which case they are classified as non-current assets.

In general terms, in order to guarantee the debts of clients, blank promissory notes with letters of instructions are constituted, and when the value of the financing exceeds pre-established amounts in the internal regulations, real or bank guarantees are requested, and in cases where the client is a state entity, is proceeded to the pledge of resources that EPM, prior agreement, collects from the client.

For the management of credit risk of accounts receivable in its different stages (risk cycle), methodologies, procedures, guidelines and business rules are incorporated, complying with commercial and financial policies, in order to achieve a comprehensive and sustainable vision of the clients.

To leverage the stages of the credit risk cycle, there are different statistical methodologies that allow obtaining an estimate of the future payment behavior of the accounts. These methodologies are described below:

- CREDIT SCORING

It allows obtaining a customer's risk profile based on their payment behavior and own characteristics, which helps in the segmentation of the population, suggesting the optimal candidates for basic services and / or added value assignment offers.

- **SCORING OF APPROVAL FOR PRODUCTS OF ADDED VALUE**

Profile customers that request a value added credit, this assigns a risk level to the applicants and in accordance with the established business rules contribute to make the final decision of approval or denial.

- **RECEIVABLE CLASSIFICATION MODEL**

Assigns the probability of default in the short term (2 months) of the services subscribed, in order to design collection prioritization strategies.

- **MODELO FOR CALCULATING EXPECTED LOSS**

It allows finding the probability that the subscribed services may enter into default within a period of 12 months, which is used to calculate the expected loss of the accounts.

The company considers that the value that best represents its exposure to credit risk at the end of the period, without considering any guarantee taken or other credit enhancements is:

| Concept                                         | 2017             | 2016             |
|-------------------------------------------------|------------------|------------------|
| Cash and cash equivalents                       | 213.612          | 519.078          |
| Other financial assets -Fixed income securities | 62.927           | 378.982          |
| Investments in equity instruments               | 1.605.902        | 1.130.682        |
| Accounts receivable                             | (266.870)        | (256.311)        |
| Other accounts receivable                       | 43.590           | (46.867)         |
| <b>Maximum exposure to credit risk</b>          | <b>1.659.161</b> | <b>1.725.565</b> |

*Amounts expressed in millions of Colombian pesos -*

#### 40.5. Liquidity Risk

Liquidity Risk refers to the possibility that there would be insufficiency of resources for the timely payment of operations and commitments of the entity, and that because of this the Group would be forced to obtain liquidity in the market or to liquidate investments in an onerous manner. It is also understood as the possibility of not finding buyers for the portfolio securities.

The Group has identified that the financial instruments affected by the liquidity risk include:

- Cash and cash equivalents
- Other financial assets:
  - Fixed income securities
  - Pledged investments or delivered in guarantee
  - Swaps
- Trade debtors and other accounts receivable

In order to control the liquidity risk comparisons of figures are made of benchmark indicators and of liquidity levels at different time horizons. As of that analysis, investment strategies are performed that do not affect the liquidity of the Group taking into account the cash budget and the market risk analyses to consider the diversification of the sources of funds, the capacity to sell assets and the creation of contingency plans.

In general, the main aspects that are taken into account in the analysis are:

- **Liquidity of securities:** the characteristics of the issuer, amount of the issue and negotiation volume are analyzed.
- **Market liquidity:** the market's general behavior is analyzed and forecasts of rates are made in order to infer their future behavior.
- **Portfolio liquidity:** cash flows are coordinated in order to determine investment strategies in accordance with the future requirements of liquidity and diversification is sought to avoid the concentration of securities by issuer, rates and/or terms.

The following table shows the analysis of contractual expirations remaining for financial liabilities and assets not derivative:

|                                                                  | Average effective interest rate | Less than 1 year | From 1 to 2 years | From 2 to 3 years | From 3 to 4 years | More than 4 years | Total contractual obligation |
|------------------------------------------------------------------|---------------------------------|------------------|-------------------|-------------------|-------------------|-------------------|------------------------------|
| <b>2017</b>                                                      |                                 |                  |                   |                   |                   |                   |                              |
| Non-derivative financial liabilities with variable interest rate | 7,20%                           | 631.969          | 219.279           | 1.008.559         | 68.119            | 2.078.902         | 4.006.828                    |
| Non-derivative financial liabilities with fixed interest rate    | 7,93%                           | 227.063          | 1.735.763         | 169.063           | 1.421.144         | 4.694.164         | 8.247.197                    |
| Other financial instruments -Fixed income securities             | 6,44%                           | 33.617           | 8.402             | 7.000             | 8.000             | 2.000             | 59.019                       |
| Non-derivative financial assets - receivable                     | 6,03%                           | 304.630          | 100.422           | 202.163           | 460.332           | 1.273.855         | 2.341.402                    |
| <b>2016</b>                                                      |                                 |                  |                   |                   |                   |                   |                              |
| Non-derivative financial liabilities with variable interest rate | 9,23%                           | 137.550          | 347.172           | 269.482           | 2.037.784         | 2.416.579         | 5.208.567                    |
| Non-derivative financial liabilities with fixed interest rate    | 7,89%                           | 109.607          | 167.607           | 1.684.662         | 109.607           | 3.360.083         | 5.431.566                    |
| Other financial instruments -Fixed income securities             | 5,61%                           | 344.277          | 12.000            | 4.000             | 4.000             | 10.000            | 374.277                      |
| Non-derivative financial assets - receivable                     | 5,77%                           | 112.756          | 283.811           | 108.051           | 187.500           | 1.604.395         | 2.296.513                    |

Amounts expressed in millions of Colombian pesos -

The values included in the above tables for financial assets and liabilities not derivative may change in view of changes in the variable interest rate with respect to the interest rate estimated at the end of the reporting period. The Group considers that the cash flows cannot occur earlier than indicated above.

The following table shows the analysis of contractual expirations remaining for financial liabilities derivatives:

|                   | Less than 1 year | From 1 to 2 years | From 2 to 3 years | From 3 to 4 years | More than 4 years | Total contractual obligation |
|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|------------------------------|
| <b>2017</b>       |                  |                   |                   |                   |                   |                              |
| Swap Agreements   | 45.094           | 30.857            | (14.388)          | (3.037)           | (5.480)           | 53.046                       |
| <b>Total</b>      | 45.094           | 30.857            | (14.388)          | (3.037)           | (5.480)           | 53.046                       |
| <b>2016</b>       |                  |                   |                   |                   |                   |                              |
| Swap Agreements   | 106.920          | 69.509            | 69.563            | (185.020)         | -                 | 60.972                       |
| Futures Contracts | (18)             | -                 | -                 | -                 | -                 | (18)                         |
| <b>Total</b>      | 106.902          | 69.509            | 69.563            | (185.020)         | -                 | 60.954                       |

Amounts expressed in millions of Colombian pesos -

The main method for the measurement and follow up of the liquidity is the projection of the cash flow that is carried out in the companies of the Group and is consolidated in the cash budget. Derived from this a daily follow up is made of its cash position and projections of the latter are continuously made in order to:

- Follow up the liquidity needs related to the operating and investment activities associated to the acquisition and disposal of long term assets.
- Pay, prepay, refinance and/or obtain new credits, in accordance with the cash flows generation capacity in the Group.

These projections take into account the debt financing plans of the Group, the compliance with ratios, the compliance with the organizational objectives and the applicable regulations.

Finally, and additionally to the management of investments and the cash flow projection as part of the strategy of a prudent man agent of the liquidity risk, in order to control the current and working capital ratio at December 2017 equal to 0.74 and of \$-1,910,185, respectively, the EPM Group seeks to guarantee an adequate liquidity through the availability of long term financing with credit alternatives. At December 2017 it has lines of credit duly approved and renewable with the local banks for approximately \$3,000 billion pesos, a quota available for placing in the market local bonds for \$1,500 billion; additionally it has financing facilities signed and pending disbursement such as: credit agreement for USD300 million with the Export Development Canada (EDC), a credit agreement for USD200 with CAF - Latin American Development Bank, and a credit agreement for USD1,000 million dollars with IDB Invest.

## **Nota 41. Measurement of fair value on a recurring and non-recurring basis**

The methodology established in IFRS 13 Fair value measurement specifies a hierarchy in the valuation techniques based on whether the variables used in the determination of the fair value are observable or not. The EPM Group determines the fair value on a recurring and non-recurring basis, as well as for disclosure purposes:

- Based on the prices quoted in active markets for assets or liabilities identical to those that the EPM Group can access on the measurement date (level 1).
- Based on valuation techniques commonly used by market participants that use variables other than quoted prices that are observable for assets or liabilities, direct or indirectly (level 2).
- Based on internal cash flow discount valuation techniques, or other valuation models, using variables estimated by the company not observable for the assets or liabilities, in lieu of variables observed in the market (level 3).

During 2017 in EPM Group no transfers have been made between the fair value hierarchy levels, either for the transfers into and out of the levels.

### **Valuation techniques and variables used in the Group to measure fair value for recognition and disclosure:**

**Cash and cash equivalents:** include fixed income instruments and trusts. In the latter is reflected the balance of the Collective Investment Funds (FIC) that the EPM Group owns. These funds are used as mechanism for savings and investment and are managed by fiduciary companies. Through these funds, resources are invested in a portfolio of assets that are updated at fair value. The EPM Group uses as valuation technique for this item the market approach; these items are classified at level 1 of the fair value hierarchy.

**Investments at fair value through profit and loss and through equity:** includes the investments that are made to optimize the liquidity surpluses, that is, all those resources that are not immediately allocated to the performance of the activities that constitute the corporate object of the companies. The EPM Group uses as valuation technique the market approach; these entries are classified in level 1 of the fair value hierarchy. For equity investments, the methodology is cash flow; it is estimated at the market price for those listed on the stock exchange; the others are valued at historical cost.

**Derivative instruments - Swaps:** The EPM Group uses derivative financial instruments, such forwards, futures, swaps and options to cover financial risks, mainly the risks of interest rate, exchange rate and commodities prices. Such derivative financial instruments are recognized initially at their fair value as of the date when the derivative agreement is executed, and subsequently they are again measured at their fair value. The EPM Group uses as valuation technique for the swaps the discounted cash flow, in an income approach. The variables used are: Swap curve of interest rates for rates denominated in US dollars, to discount cash flow in US dollars; and Swap Curve of external interest rate for rates denominated in pesos, to discount cash flows in pesos. These entries are classified in level 2 of the fair value hierarchy.

**Contingent considerations:** originated by the business combinations for the acquisitions of the subsidiaries Espiritu Santo Energy S. de R.L. and Empresas Varias de Medellin S.A E.S.P. - EMVARIAS, the discounts of the payment flows are considered applying the discount rates: LIBOR and TES rates, respectively. These items are classified at level 2 of the fair value hierarchy. (See note 27. Provisions, contingent assets and liabilities).

The following table shows for each of the fair value hierarchy levels, the assets and liabilities of the EPM Group, measured at fair value on a recurring basis to the cut-off date, as well as the total value of the transfers between level 1 and level 2 occurred during the period:

| Measurement of fair value on a recurring basis 2017    | Level 1          | Level 2         | Level 3      | Total            |
|--------------------------------------------------------|------------------|-----------------|--------------|------------------|
| <b>Assets</b>                                          |                  |                 |              |                  |
| <b>Negotiable or designated at fair value</b>          |                  |                 |              |                  |
| Cash and cash equivalents - Fiduciary assignments      | 11.755           | -               | -            | 11.755           |
|                                                        | <b>11.755</b>    | -               | -            | <b>11.755</b>    |
| <b>Other investments at a fair value (See note 12)</b> |                  |                 |              |                  |
| Fixed income securities                                | 57.494           | -               | -            | 57.494           |
| Variable income securities                             | 55.314           | -               | -            | 55.314           |
| Pledged investments or delivered in guarantees         | 5.434            | -               | -            | 5.434            |
|                                                        | <b>118.242</b>   | -               | -            | <b>118.242</b>   |
| <b>Other equity investments (See note 12)</b>          |                  |                 |              |                  |
| Variable income securities                             | 1.599.169        | -               | 6.733        | 1.605.902        |
|                                                        | <b>1.599.169</b> | -               | <b>6.733</b> | <b>1.605.902</b> |
| <b>Fiduciary rights (See note 12)</b>                  |                  |                 |              |                  |
| Fiduciary in administration                            | 353.669          | -               | -            | 353.669          |
|                                                        | <b>353.669</b>   | -               | -            | <b>353.669</b>   |
| <b>Derivatives (See note 12)</b>                       |                  |                 |              |                  |
| Futures contracts                                      | -                | 96              | -            | 96               |
| Swaps                                                  | -                | 14.150          | -            | 14.150           |
|                                                        | -                | <b>14.246</b>   | -            | <b>14.246</b>    |
| <b>Investment properties (See notae 5)</b>             |                  |                 |              |                  |
| Urban and rural land                                   | -                | 108.456         | -            | 108.456          |
| Buildings and houses                                   | -                | 8.367           | -            | 8.367            |
|                                                        | -                | <b>116.823</b>  | -            | <b>116.823</b>   |
| <b>Liabilities</b>                                     |                  |                 |              |                  |
| <b>Derivatives</b>                                     |                  |                 |              |                  |
| Swaps                                                  | -                | 66.351          | -            | 66.351           |
|                                                        | -                | <b>66.351</b>   | -            | <b>66.351</b>    |
| <b>Contingent compensation (See note 27)</b>           |                  |                 |              |                  |
| Provision - business combination                       | -                | 144.453         | -            | 144.453          |
|                                                        | -                | <b>144.453</b>  | -            | <b>144.453</b>   |
| <b>Total</b>                                           | <b>2.082.835</b> | <b>(79.735)</b> | <b>6.733</b> | <b>2.009.833</b> |
|                                                        | 104%             | -4%             | 0%           |                  |



| Measurement of fair value on a recurring basis 2016    | Level 1          | Level 2          | Level 3      | Total            |
|--------------------------------------------------------|------------------|------------------|--------------|------------------|
| <b>Assets</b>                                          |                  |                  |              |                  |
| <b>Negotiable or designated at fair value</b>          |                  |                  |              |                  |
| Cash and cash equivalents - Encargos fiduciarios       | 55.698           | -                | -            | 55.698           |
|                                                        | <b>55.698</b>    | -                | -            | <b>55.698</b>    |
| <b>Other investments at a fair value (See note 12)</b> |                  |                  |              |                  |
| Fixed income securities                                | 374.621          | -                | -            | 374.621          |
| Variable income securities                             | 37.958           | -                | -            | 37.958           |
| Pledged investments or delivered in guarantees         | 4.361            | -                | -            | 4.361            |
|                                                        | <b>416.940</b>   | -                | -            | <b>416.940</b>   |
| <b>Other equity investments (See note 12)</b>          |                  |                  |              |                  |
| Variable income securities                             | 1.123.949        | -                | 6.733        | 1.130.682        |
|                                                        | <b>1.123.949</b> | -                | <b>6.733</b> | <b>1.130.682</b> |
| <b>Fiduciary rights (See note 12)</b>                  |                  |                  |              |                  |
| Fiduciary in administration                            | 354.170          | -                | -            | 354.170          |
|                                                        | <b>354.170</b>   | -                | -            | <b>354.170</b>   |
| <b>Derivatives (See note 12)</b>                       |                  |                  |              |                  |
| Futures contracts                                      | -                | 18               | -            | 18               |
|                                                        | -                | <b>18</b>        | -            | <b>18</b>        |
| <b>Investment properties (See notae 5)</b>             |                  |                  |              |                  |
| Urban and rural land                                   | -                | 108.851          | -            | 108.851          |
| Buildings and houses                                   | -                | 7.777            | -            | 7.777            |
|                                                        | -                | <b>116.628</b>   | -            | <b>116.628</b>   |
| <b>Liabilities</b>                                     |                  |                  |              |                  |
| <b>Derivatives</b>                                     |                  |                  |              |                  |
| Swaps                                                  | -                | 70.951           | -            | 70.951           |
|                                                        | -                | <b>70.951</b>    | -            | <b>70.951</b>    |
| <b>Contingent compensation (See note 27)</b>           |                  |                  |              |                  |
| Provision - business combination                       | -                | 147.413          | -            | 147.413          |
|                                                        | -                | <b>147.413</b>   | -            | <b>147.413</b>   |
| <b>Total</b>                                           | <b>1.950.757</b> | <b>(101.718)</b> | <b>6.733</b> | <b>1.855.772</b> |
|                                                        | 105%             | -5%              | 0%           |                  |

Amounts expressed in millions of Colombian pesos -

The carrying amount and the estimated fair value of assets and liabilities of the EPM Group that are not recognized at fair value in the consolidated statement of financial condition, but require their disclosure at fair value, as of December 31, 2017 and 2016 is the following:

| Concept                           | 2017               |                      | 2016               |
|-----------------------------------|--------------------|----------------------|--------------------|
|                                   | Carrying amounts   | Estimated fair value |                    |
|                                   |                    | Level 2              | Level 2            |
| <b>Assets</b>                     |                    |                      |                    |
| Public services                   | 1.628.329          | 1.626.491            | 1.527.234          |
| Employees                         | 108.362            | 110.297              | 76.810             |
| Associates                        | 1.733.789          | 1.733.789            | 1.721.150          |
| Other accounts receivable         | 59.393             | 59.669               | (14.695)           |
| <b>Total assets</b>               | <b>3.529.873</b>   | <b>3.530.246</b>     | <b>3.310.499</b>   |
| <b>Liabilities</b>                |                    |                      |                    |
| Other bonds and securities issued | 8.240.198          | 8.240.198            | 6.135.271          |
| Commercial banking loans          | 1.113.156          | 1.113.156            | 1.801.972          |
| Multilateral banking loans        | 1.668.269          | 1.668.269            | 1.664.555          |
| Development banking loans         | 919.922            | 919.922              | 963.111            |
| Bonds and securities issued       | 469.370            | 469.370              | 255.780            |
| Economic associate loans          | 36.415             | 36.415               | -                  |
| <b>Total liabilities</b>          | <b>12.447.330</b>  | <b>12.447.330</b>    | <b>10.820.689</b>  |
| <b>Total</b>                      | <b>(8.917.457)</b> | <b>(8.917.084)</b>   | <b>(7.510.190)</b> |

100%

100%

Amounts expressed in millions of Colombian pesos -

As of December 31, 2017 and 2016, there were no concepts in levels 1 and 3.

## Nota 42. Service Concession Contracts

As of December 31, 2017, the Company manages as concessionaire several concessions that contain provisions for the construction, operation and maintenance of facilities, as well as the provision of public services such as water supply, collection and treatment of waste water, in accordance with the regulations of application.

The remainder of the concessions where the Group acts as operator is detailed below:

| Entity/agreement                                         | Activity                                                                                                                                                       | Country  | Concession period     | Initial remaining period |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------|--------------------------|
| Empresas públicas de Medellín - Municipio de Caldas      | The Municipality undertakes to make available and facilitate the use of networks and other infrastructure for the provision of aqueduct and sewerage services. | Colombia | 30 years (extendable) | 11 years                 |
| Empresas públicas de Medellín - Municipio de Sabaneta    | The Municipality undertakes to make available and facilitate the use of networks and other infrastructure for the provision of aqueduct and sewerage services. | Colombia | 10 years (extendable) | 7 years                  |
| Empresas públicas de Medellín - Municipio de La Estrella | Execution of works and provision of water supply and sewerage services.                                                                                        | Colombia | 10 years (extendable) | 7 years                  |
| Empresas públicas de Medellín - Municipio de Envigado    | Provision of the aqueduct and sewer service                                                                                                                    | Colombia | 10 years (extendable) | 10 years                 |
| Empresas públicas de Medellín - Municipio de Itagüí      | Construction of the aqueduct and sewerage networks for the provision of the service in the assigned districts.                                                 | Colombia | 30 years (extendable) | 30 years                 |
| Empresas públicas de Medellín - Municipio de Bello       | Execution of works and provision of the aqueduct and sewer service.                                                                                            | Colombia | 10 years (extendable) | 5 years                  |
| Empresas públicas de Medellín - Municipio de Copacabana  | The Municipality commits to the execution of works for the supply of drinking water, sewage and provision of such services.                                    | Colombia | 20 years (extendable) | 13 years                 |
| Empresas públicas de Medellín - Municipio de Girardota   | Provision of the aqueduct and sewer service.                                                                                                                   | Colombia | 20 years (extendable) | 15 years                 |
| Empresas públicas de Medellín - Municipio de Barbosa     | The Municipality undertakes to make available and facilitate the use of networks and other infrastructure for the provision of aqueduct and sewerage services. | Colombia | 30 years (extendable) | 10 years                 |

At the cut-off date, no revenue and costs incurred by the exchanged construction services for a financial asset or an intangible asset have been recognized.

#### Service concession contracts for the provision of the aqueduct and sewerage service

The concession agreements between EPM and the Municipalities, establish the conditions under which the aqueduct and sewerage networks are administered, operated and maintained for the provision of potable water service and sanitation of wastewater to its inhabitants, under the terms, conditions and rates established by the Commission for the Regulation of Potable Water and Basic Sanitation - CRA -.

In the agreements are indicated the following rights and obligations for EPM as operator in the service concession contract:

- The right to receive from the Municipality all the aqueduct and sewerage networks and to have exclusivity as system operator.
- Obligation to make exclusive use of the aqueduct and sewerage networks for the purposes for which they are intended, maintain them and return them under the conditions of use in which they were received.
- Some concession agreements have the option to be renewed automatically for equal periods unless one of the parties expresses the intention not to continue with it.
- The concession contracts do not establish the obligation to construct elements of property, plant and equipment.

Upon termination of the concession, EPM must return the aqueduct and sewerage networks without any consideration to the Municipalities. No changes have occurred in the terms of the concession contract during the period.

For these agreements, the intangible asset model is applicable. See Note 6 Other intangible assets.

### **Nota 43. Events occurred after the period being reported**

After the date of presentation of the separate financial statements and before the date of authorization of its publication, no relevant events were presented that imply adjustments to the figures.



# Grupo EPM

## Financial Report

Grupo·epm<sup>®</sup>





# **Empresas Públicas de Medellín E.S.P. and Subsidiaries**

**Consolidated Financial Statements and Notes  
December 31, 2017 and 2016**

## INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of  
EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. (EPM):

### Identification of the financial statements subject to audit

We have audited the accompanying financial statement consolidated of EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. and subsidiaries, which comprise the consolidated statements of financial position as of December 31, 2017, the consolidated statement of income and other comprehensive income, of changes in shareholders' net equity and of cash flows for the year ended on that date, and a summary of significant accounting policies and other explanatory notes.

### Responsibility of the Company's management for the financial statements

Management is responsible for the preparation and fair presentation of the these consolidated financial statements in accordance with International Financial Reporting Standards adopted in Colombia by the General Accounting Office of the Nation, and for the internal control that management considers relevant for the preparation and accurate presentation of the financial statements free from material misstatements, whether due to fraud or error; select and apply the appropriate accounting policies; as well as make accounting estimates that are reasonable in the circumstances.

### Auditor's Responsibility

Our responsibility is to express an opinion on the accompanying financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing accepted in Colombia. Those standards require that we comply with ethical requirements, and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence that we have obtained is sufficient and appropriate to provide a basis for my audit opinion.

**Opinion**

In our opinion, the accompanying financial statements referred above, taken from the accounting books, present fairly, in all material respects, the financial position of EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. and subsidiaries as of December 31, 2017, the consolidated results of its operations and its consolidated cash flows for the year ended on that date, in conformity with International Financial Reporting Standards adopted in Colombia by the General Accounting Office of the Nation.

**Other matters**

The consolidated financial statements as of December 31, 2016 are included for comparative purposes only, were audited and we expressed our opinion on them without qualifications on March 14, 2017.

A handwritten signature in dark ink that reads "Deloitte & Touche Ltda." in a cursive, slightly slanted script.

DELOITTE & TOUCHE LTDA.  
March 20, 2018.



## Certification of the legal representative and accountant of EPM

March 20, 2018


Board of Directors  
Empresas Públicas de Medellín E.S.P.

The undersigned legal representative and accountant of Empresas Públicas de Medellín E.S.P. certify that the balances of the consolidated financial statements of Empresas Públicas de Medellín E.S.P. and their subsidiary companies as of December 31, 2017 and 2016, were faithfully taken from the accounting books, which were made in accordance with the International Financial Reporting Standards (IFRS) and that the information reflects the financial, economic, social and environmental situation and operation of Empresas Públicas de Medellín E.S.P. and subsidiary companies in a reliable manner; furthermore, they note that, for its preparation, the assertions appearing on the aforementioned consolidated financial statements were verified, regarding:

- a) All the transactions that have been made in the covered years have been accurately registered on the respective periods, pursuant to the appropriate acknowledgement of the proper quantities and accounts, and measured by the reasonable costs and appropriately revealed.
- b) All the assets, liabilities, and net equity of the consolidated financial statements reflect the existence of rights and obligations of Empresas Públicas de Medellín E.S.P. and its subsidiary companies.
- c) The disclosures or accounting notes were prepared with clarity and in accordance with the IFRS.

The financial statements do not contain defects, inaccuracies, or errors that may prevent the actual financial position and financial performance of the entity from being known.

  
Jorge Londoño De la Cuesta  
CEO

  
John Jaime Rodríguez Sosa  
Director of Accounting and Costs  
Professional License: 144842-T

*estamos ahí.*

**EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENT OF FINANCIAL POSITION**

At Years ended as of December 31, 2017 and 2016

Amounts stated in millions of Colombian pesos


|                                                                    | Notes | 2017              | 2016              |
|--------------------------------------------------------------------|-------|-------------------|-------------------|
| <b>Assets</b>                                                      |       |                   |                   |
| <b>Non current assets</b>                                          |       |                   |                   |
| Properties, plant and equipment, net                               | 4     | 31,480,096        | 28,266,110        |
| Investment properties                                              | 5     | 126,740           | 124,589           |
| Goodwill                                                           | 6     | 3,060,672         | 2,918,817         |
| Other intangible assets                                            | 6     | 2,076,453         | 1,870,379         |
| Investments in associates                                          | 10    | 1,804,827         | 1,826,273         |
| Investments in a joint ventures                                    | 11    | 82                | 93                |
| Deferred tax assets                                                | 39    | 225,317           | 188,293           |
| Trade and other receivables                                        | 12    | 874,751           | 816,128           |
| Other financial assets                                             | 13    | 2,105,782         | 1,602,495         |
| Other assets                                                       | 16    | 115,581           | 103,786           |
| <b>Total non current assets</b>                                    |       | <b>41,870,301</b> | <b>37,716,963</b> |
| <b>Current assets</b>                                              |       |                   |                   |
| Inventories                                                        | 17    | 372,240           | 393,861           |
| Trade and other receivables                                        | 12    | 2,752,912         | 2,522,136         |
| Current tax assets                                                 | 39    | 415,669           | 139,582           |
| Other financial assets                                             | 13    | 265,938           | 758,094           |
| Other assets                                                       | 16    | 388,561           | 213,322           |
| Cash and cash equivalents                                          | 18    | 1,191,214         | 1,194,499         |
| <b>Total Current assets</b>                                        |       | <b>5,386,534</b>  | <b>5,221,494</b>  |
| <b>Total assets</b>                                                |       | <b>47,256,835</b> | <b>42,938,457</b> |
| Regulatory deferral debit balances and related deferred tax asset  | 30    | 48,842            | 15,813            |
| <b>Total assets and regulatory deferral account debit balances</b> |       | <b>47,305,677</b> | <b>42,954,270</b> |
| <b>Equity</b>                                                      |       |                   |                   |
| Capital issued                                                     | 19    | 67                | 67                |
| Share premium                                                      |       | (25,118)          | (25,014)          |
| Reserves                                                           | 19    | 3,479,283         | 3,604,789         |
| Other comprehensive income                                         | 20    | 2,864,172         | 2,440,216         |
| Retained earnings                                                  | 19    | 11,505,849        | 11,235,786        |
| Profit for the year                                                | 19    | 2,186,302         | 1,724,000         |
| <b>Equity attributable to controlling interests</b>                |       | <b>20,010,555</b> | <b>18,979,844</b> |
| Non controlling interests                                          | 19    | 857,654           | 803,461           |
| <b>Total equity</b>                                                |       | <b>20,868,209</b> | <b>19,783,305</b> |

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EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. AND SUBSIDIARIES  
**CONSOLIDATED STATEMENT OF FINANCIAL POSITION**  
 At Years ended as of December 31, 2017 and 2016  
 Amounts stated in millions of Colombian pesos

|                                                                              | Notes | 2017              | 2016              |
|------------------------------------------------------------------------------|-------|-------------------|-------------------|
| <b>Liabilities</b>                                                           |       |                   |                   |
| <b>Non current liabilities</b>                                               |       |                   |                   |
| Credits and loans                                                            | 21    | 14,116,243        | 12,954,621        |
| Trade and other payables                                                     | 22    | 264,530           | 329,791           |
| Other financial liabilities                                                  | 23    | 538,470           | 534,823           |
| Employee benefits                                                            | 25    | 849,558           | 826,621           |
| Deferred tax liabilities                                                     | 39    | 2,854,341         | 2,488,658         |
| Provisions                                                                   | 27    | 384,345           | 335,552           |
| Other liabilities                                                            | 28    | 118,607           | 133,654           |
| <b>Total non current liabilities</b>                                         |       | <b>19,126,094</b> | <b>17,603,720</b> |
| <b>Current liabilities</b>                                                   |       |                   |                   |
| Credits and loans                                                            | 21    | 2,842,480         | 1,893,387         |
| Trade and other payables                                                     | 22    | 2,948,403         | 2,328,612         |
| Other financial liabilities                                                  | 23    | 364,878           | 358,961           |
| Employee benefits                                                            | 25    | 237,959           | 219,485           |
| Current tax liabilities                                                      | 39    | 148,088           | 132,305           |
| Taxes, contributions and rates payable                                       | 26    | 181,740           | 164,618           |
| Provisions                                                                   | 27    | 400,026           | 279,209           |
| Other liabilities                                                            | 28    | 173,147           | 185,924           |
| <b>Total current liabilities</b>                                             |       | <b>7,296,721</b>  | <b>5,562,501</b>  |
| <b>Total liabilities</b>                                                     |       | <b>26,422,815</b> | <b>23,166,221</b> |
| Regulatory deferral credit balances and related deferred tax liabilities     | 30    | 14,653            | 4,744             |
| <b>Total liabilities and credit balances of deferred regulatory accounts</b> |       | <b>26,437,468</b> | <b>23,170,965</b> |
| <b>Total liabilities and equity</b>                                          |       | <b>47,305,677</b> | <b>42,954,270</b> |

The notes 1 to 46 are an integral part of these consolidated financial statements

  
 Jorge Londoño De la Cuesta  
 Chief Executive Officer

  
 Jorge Andrés Tabares Ángel  
 Chief Financial Officer

  
 John Jaime Rodríguez Sosa  
 Accountant  
 T.P. 144842-T

EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. AND SUBSIDIARIES

**CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME**

For the year ended 31 december 2017 and 2016

Amounts stated in millions of Colombian pesos

|                                                                                                         | Notes   | 2017              | 2016              |
|---------------------------------------------------------------------------------------------------------|---------|-------------------|-------------------|
| <b>Continuing operations</b>                                                                            |         |                   |                   |
| Sale of goods                                                                                           | 31      | 52,045            | 36,156            |
| Rendering of services                                                                                   | 31      | 14,444,599        | 14,195,064        |
| Leases                                                                                                  | 31      | 76,992            | 62,954            |
| Other revenues                                                                                          | 32      | 375,065           | 1,517,925         |
| <b>Revenues from ordinary activities</b>                                                                |         | <b>14,948,701</b> | <b>15,812,099</b> |
| Profit in sale of assets                                                                                | 31      | 1,647             | 42,112            |
| <b>Total revenues</b>                                                                                   |         | <b>14,950,348</b> | <b>15,854,211</b> |
| Cost of sales                                                                                           | 33      | (9,697,215)       | (11,257,135)      |
| Administration expenses                                                                                 | 34      | (1,451,442)       | (1,478,556)       |
| Impairment loss recognised on trade receivables                                                         | 12      | (109,232)         | (101,327)         |
| Other expenses                                                                                          | 35      | (79,262)          | (115,868)         |
| Financial income                                                                                        | 36.1    | 252,902           | 341,932           |
| Financial expenses                                                                                      | 36.2    | (1,022,277)       | (989,165)         |
| Net exchange difference                                                                                 | 37      | 158,730           | 245,899           |
| Share of profit of an associate and a joint venture                                                     |         | (8,802)           | (70,530)          |
| Dividends on equity instruments                                                                         | 38      | 82,465            | 35,045            |
| <b>Profit before tax</b>                                                                                |         | <b>3,076,215</b>  | <b>2,464,506</b>  |
| Income tax expense                                                                                      | 39      | (785,960)         | (649,129)         |
| <b>Profit for the year before net movement in regulatory deferral account balances</b>                  |         | <b>2,290,255</b>  | <b>1,815,377</b>  |
| Net movement in balances of net regulatory accounts related to the result of the year                   | 30      | 33,643            | 72,160            |
| Net movement in deferred tax related to deferred regulatory accounts related to the results of the year | 30      | 3,204             | (21,792)          |
| <b>Profit for the year and net movement in regulatory deferral account balances</b>                     |         | <b>2,327,102</b>  | <b>1,865,745</b>  |
| <b>Other comprehensive income, net of taxes</b>                                                         |         |                   |                   |
| <b>Items that will not be reclassified subsequently to profit of the year</b>                           |         |                   |                   |
| Reclassification of properties, plant and equipment to investment properties                            | 20      | -                 | 9,700             |
| Remeasurement of defined benefit plans                                                                  | 20      | (32,292)          | (112,141)         |
| Investment revaluation reserve for equity instruments at FVTOCI                                         | 20      | 475,218           | 554,131           |
| Income tax relating to items that will not be reclassified subsequently to profit or loss               | 20 y 39 | (33,274)          | (60,406)          |
| Share of other comprehensive income of associates and joint ventures                                    | 20      | (4,239)           | (2,028)           |
|                                                                                                         |         | <b>405,413</b>    | <b>389,256</b>    |
| <b>Items that may be reclassified subsequently to profit or loss:</b>                                   |         |                   |                   |
| <b>Cash flow hedges:</b>                                                                                |         |                   |                   |
| Losses arising during the year                                                                          | 20      | (5,449)           | (18,284)          |
| Reclassification of losses to profit or loss                                                            | 20      | (93,387)          | (65,214)          |
| Reclassification of losses to profit or loss                                                            | 20      | 87,938            | 46,931            |
| <b>Exchange differences on translation of foreign operations</b>                                        | 20      | 15,225            | (152,425)         |
| <b>Income tax relating to items that may be reclassified subsequently to profit or loss</b>             | 20 y 39 | 8,442             | 10,196            |
| Share of other comprehensive income of associates and joint ventures                                    | 20      | 1,058             | 628               |
|                                                                                                         |         | <b>19,276</b>     | <b>(159,885)</b>  |
| <b>Other comprehensive income, net of taxes</b>                                                         |         | <b>424,689</b>    | <b>229,371</b>    |
| <b>Total comprehensive income for the year</b>                                                          |         | <b>2,751,791</b>  | <b>2,095,116</b>  |
| <b>Profit for the year attributable to:</b>                                                             |         |                   |                   |
| Owners of the company                                                                                   |         | 2,186,302         | 1,724,000         |
| Non controlling interest                                                                                |         | 140,800           | 141,745           |
|                                                                                                         |         | <b>2,327,102</b>  | <b>1,865,745</b>  |
| <b>Total comprehensive income attributable to:</b>                                                      |         |                   |                   |
| Owners of the company                                                                                   |         | 2,612,229         | 1,958,521         |
| Non controlling interests                                                                               |         | 139,562           | 136,595           |
|                                                                                                         |         | <b>2,751,791</b>  | <b>2,095,116</b>  |

The notes 1 to 46 are an integral part of these consolidated financial statements

**Jorge Londoño De la Cuesta**  
 Chief Executive Officer

**Jorge Andrés Tabares Ángel**  
 Chief Financial Officer

**John Jaime Rodríguez Sosa**  
 Accountant  
 T.P. 144842-T

EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. AND SUBSIDIARIES  
**CONSOLIDATED STATEMENTS OF CHANGES IN THE EQUITY**

For the year ended 31 december 2017 and 2016

Amounts stated in millions of Colombian pesos

|                                                               | Other comprehensive income |                 |                  |                   |                   |                       |                   |                        |                                                                              |                                                                                            |                                       |                           |                   |
|---------------------------------------------------------------|----------------------------|-----------------|------------------|-------------------|-------------------|-----------------------|-------------------|------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------|---------------------------|-------------------|
|                                                               | Capital issued             | Share premium   | Reserves         | Retained earnings | Equity investment | Defined benefit plans | Cash flow hedging | Conversion differences | Reclassification of properties, plant and equipment to investment properties | Profit of the year in other comprehensive income of associates and joint ventures business | Attributable to owners of the company | Non-controlling interests | Total             |
|                                                               | Nota 19.1                  |                 | Note 19.2        | Note 19.3         | Note 20.3         | Note 20.2             | Note 20.5         | Note 20.6              | Note 20.1                                                                    | Note 20.4                                                                                  |                                       | Note 19.4                 |                   |
| Balance as of January 1, 2016 (as previously reported)        | 67                         | 5,584           | 3,827,907        | 11,417,031        | 1,763,131         | 46,232                | -                 | 859,308                | 3,335                                                                        | 1,588                                                                                      | 17,924,183                            | 843,973                   | 18,768,156        |
| Impact of adoption IFRS 9 as of January 1, 2016 (Note 2.28.2) | -                          | -               | -                | (89,269)          | -                 | -                     | -                 | -                      | -                                                                            | -                                                                                          | (89,269)                              | (5,667)                   | (94,936)          |
| <b>Balance as of January 1, 2016 restated</b>                 | <b>67</b>                  | <b>5,584</b>    | <b>3,827,907</b> | <b>11,327,762</b> | <b>1,763,131</b>  | <b>46,232</b>         | <b>-</b>          | <b>859,308</b>         | <b>3,335</b>                                                                 | <b>1,588</b>                                                                               | <b>17,834,914</b>                     | <b>838,306</b>            | <b>18,673,220</b> |
| Profit for the year                                           | -                          | -               | -                | 1,724,000         | -                 | -                     | -                 | -                      | -                                                                            | -                                                                                          | 1,724,000                             | 141,745                   | 1,865,745         |
| Other comprehensive income of the year net of income tax      | -                          | -               | -                | -                 | 450,514           | (61,064)              | (9,881)           | (152,393)              | 8,744                                                                        | (1,399)                                                                                    | 234,521                               | (5,150)                   | 229,371           |
| <b>Comprehensive income for the year</b>                      | <b>-</b>                   | <b>-</b>        | <b>-</b>         | <b>1,724,000</b>  | <b>450,514</b>    | <b>(61,064)</b>       | <b>(9,881)</b>    | <b>(152,393)</b>       | <b>8,744</b>                                                                 | <b>(1,399)</b>                                                                             | <b>1,958,521</b>                      | <b>136,595</b>            | <b>2,095,116</b>  |
| Surpluses and dividends declared                              | -                          | -               | -                | (816,521)         | -                 | -                     | -                 | -                      | -                                                                            | -                                                                                          | (816,521)                             | (78,031)                  | (894,552)         |
| Movement of reserves                                          | -                          | -               | (222,874)        | 222,874           | -                 | -                     | -                 | -                      | -                                                                            | -                                                                                          | -                                     | -                         | -                 |
| Purchases and sales to non-controlling interests              | -                          | (23,413)        | (236)            | (6,125)           | (466,447)         | -                     | -                 | -                      | -                                                                            | -                                                                                          | (29,774)                              | 29,774                    | -                 |
| Transfers to retained earnings                                | -                          | -               | -                | 466,447           | (466,447)         | -                     | -                 | -                      | -                                                                            | -                                                                                          | -                                     | -                         | -                 |
| Income tax relating to transactions with owners               | -                          | -               | -                | (5,085)           | -                 | -                     | -                 | -                      | -                                                                            | -                                                                                          | (5,085)                               | -                         | (5,085)           |
| Disposal of partial interest in subsidiary                    | -                          | -               | (8)              | 4,298             | -                 | -                     | -                 | -                      | -                                                                            | -                                                                                          | 4,290                                 | (2,368)                   | 1,922             |
| Other movement of the year                                    | -                          | (7,185)         | -                | 42,136            | (1,322)           | (117)                 | 1,619             | (1,632)                | -                                                                            | -                                                                                          | 33,499                                | (120,815)                 | (87,316)          |
| <b>Balance as of December 31, 2016</b>                        | <b>67</b>                  | <b>(25,014)</b> | <b>3,604,789</b> | <b>12,959,786</b> | <b>1,745,876</b>  | <b>(14,949)</b>       | <b>(8,262)</b>    | <b>705,283</b>         | <b>12,079</b>                                                                | <b>189</b>                                                                                 | <b>18,979,844</b>                     | <b>803,461</b>            | <b>19,783,305</b> |
| Balance as of January 1, 2017                                 | 67                         | (25,014)        | 3,604,789        | 12,959,786        | 1,745,876         | (14,949)              | (8,262)           | 705,283                | 12,079                                                                       | 189                                                                                        | 18,979,844                            | 803,461                   | 19,783,305        |
| Profit for the year                                           | -                          | -               | -                | 2,186,302         | -                 | -                     | -                 | -                      | -                                                                            | -                                                                                          | 2,186,302                             | 140,800                   | 2,327,102         |
| Other comprehensive income of the year net of income tax      | -                          | -               | -                | -                 | 431,519           | (20,674)              | 3,041             | 15,221                 | -                                                                            | (3,180)                                                                                    | 425,927                               | (1,238)                   | 424,689           |
| <b>Comprehensive income for the year</b>                      | <b>-</b>                   | <b>-</b>        | <b>-</b>         | <b>2,186,302</b>  | <b>431,519</b>    | <b>(20,674)</b>       | <b>3,041</b>      | <b>15,221</b>          | <b>-</b>                                                                     | <b>(3,180)</b>                                                                             | <b>2,612,229</b>                      | <b>139,562</b>            | <b>2,751,791</b>  |
| Surpluses and dividends declared                              | -                          | -               | -                | (1,609,136)       | -                 | -                     | -                 | -                      | -                                                                            | -                                                                                          | (1,609,136)                           | (86,328)                  | (1,695,464)       |
| Movement of reserves                                          | -                          | -               | (92,217)         | 92,217            | -                 | -                     | -                 | -                      | -                                                                            | -                                                                                          | -                                     | -                         | -                 |
| Income tax relating to transactions with owners               | -                          | -               | -                | (1,681)           | -                 | -                     | -                 | -                      | -                                                                            | -                                                                                          | (1,681)                               | (1,605)                   | (3,286)           |
| Other movement of the year                                    | -                          | (104)           | (33,289)         | 64,663            | (4,049)           | 6,066                 | (568)             | (3,830)                | -                                                                            | 410                                                                                        | 29,299                                | 2,564                     | 31,863            |
| <b>Balance as of December 31, 2017</b>                        | <b>67</b>                  | <b>(25,118)</b> | <b>3,479,283</b> | <b>13,692,151</b> | <b>2,173,346</b>  | <b>(29,557)</b>       | <b>(5,789)</b>    | <b>716,674</b>         | <b>12,079</b>                                                                | <b>(2,581)</b>                                                                             | <b>20,010,555</b>                     | <b>857,654</b>            | <b>20,868,209</b> |

The notes 1 to 46 are an integral part of these consolidated financial statements

**Jorge Londoño De la Cuesta**  
 Chief Executive Officer

**Jorge Andrés Tabares Ángel**  
 Chief Financial Officer

**John Jaime Rodríguez Sosa**  
 Accountant  
 T.P. 144842-T

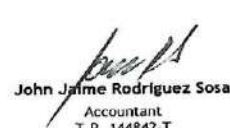
EMPRESAS PUBLICAS DE MEDELLIN E.S.P. AND SUBSIDIARIES  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
 For the year ended 31 december 2017 and 2016  
 Amounts stated in millions of Colombian pesos

|                                                                                                             | Notes   | 2017               | 2016               |
|-------------------------------------------------------------------------------------------------------------|---------|--------------------|--------------------|
| <b>Cash flows for operating activities:</b>                                                                 |         |                    |                    |
| <b>Profit for the year</b>                                                                                  |         | <b>2,327,102</b>   | <b>1,724,000</b>   |
| <b>Adjustments to reconcile the profit for the year to the net cash flows used in operating activities:</b> |         |                    |                    |
| Depreciation and amortization of properties, plant and equipment and intangible assets                      | 33 y 34 | 948,481            | 892,402            |
| Impairment of property, plant and equipment and intangibles                                                 | 33      | 62,944             | 985,502            |
| Impairment loss recognised on trade receivables                                                             | 12      | 109,232            | 101,327            |
| Reversal of loss of impairment of property, plant and equipment and intangible assets                       | 7       | -                  | (711,214)          |
| Reversal of impairment loss on trade receivables                                                            | 32      | (32,432)           | (6,468)            |
| Net foreign exchange differences                                                                            |         | (158,730)          | (348,971)          |
| (Gain)/loss arising on changes in fair value of investment property                                         | 5       | (10,848)           | 12,429             |
| Result for valuation of financial instruments and hedge accounting                                          |         | 72,615             | 881,999            |
| Provisions, post-employment and long term defined benefit plans                                             |         | 228,554            | 235,715            |
| Government grants                                                                                           |         | (928)              | (1,152)            |
| Deferred income tax                                                                                         | 39      | 312,817            | (25,930)           |
| Current income tax                                                                                          | 39      | 473,143            | 675,059            |
| Share of profit of an associate and a joint venture                                                         |         | 8,802              | 70,531             |
| Expense (income) interest                                                                                   | 36      | 676,125            | (23,784)           |
| Loss / (gain) on disposal of property, plant and equipmen, intangibles and investment properties            |         | 5,674              | (3,638)            |
| Result for disposal of non-current assets held for sale and other assets                                    |         | (32)               | -                  |
| Result for business combination                                                                             | 9       | (32,669)           | -                  |
| Non-controlling interests                                                                                   |         | -                  | 141,745            |
| Dividends from investments                                                                                  | 38      | (49,764)           | (35,107)           |
| Other income and expenses not effective                                                                     |         | (54,599)           | (213,759)          |
|                                                                                                             |         | <b>4,885,487</b>   | <b>4,350,686</b>   |
| <b>Changes in:</b>                                                                                          |         |                    |                    |
| Inventories                                                                                                 |         | 21,024             | (43,274)           |
| Trade and other receivables                                                                                 |         | (328,546)          | 38,934             |
| Other assets                                                                                                |         | (494,654)          | 74,952             |
| Trade and other payables                                                                                    |         | 635,994            | (73,643)           |
| Employee benefits                                                                                           |         | (42,803)           | (177,134)          |
| Provisions                                                                                                  |         | (29,865)           | -                  |
| Other liabilities                                                                                           |         | 393,963            | (75,227)           |
| Interest paid                                                                                               |         | (1,118,565)        | (1,041,381)        |
| Income tax paid and equity tax                                                                              |         | (707,078)          | (479,011)          |
| <b>Net cash flows originated by operating activities</b>                                                    |         | <b>3,219,959</b>   | <b>2,574,902</b>   |
| <b>Cash flows for investment activities:</b>                                                                |         |                    |                    |
| Net cash outflow on acquisition of subsidiaries                                                             |         | 19,234             | 5,688              |
| Acquisition of property, plant and equipment                                                                |         | (4,301,594)        | (3,877,390)        |
| Proceeds from disposal of property, plant and equipment                                                     |         | 32,423             | 49,507             |
| Acquisition of intangible assets                                                                            |         | (114,843)          | (162,118)          |
| Proceeds from disposal of intangible assets                                                                 |         | 1,805              | -                  |
| Proceeds from disposal of investment properties                                                             |         | -                  | 1,105              |
| Net cash outflow on acquisition of associate                                                                |         | (76)               | -                  |
| Acquisition of financial assets                                                                             |         | -                  | (464,057)          |
| Proceeds on sale of financial assets                                                                        |         | 617,513            | 1,619,743          |
| Government Grants                                                                                           |         | 442                | -                  |
| Interest received                                                                                           |         | -                  | 235,134            |
| Other dividends received                                                                                    |         | 49,764             | 231,396            |
| Other cash flows from investment activities                                                                 |         | (14,045)           | (36,741)           |
| <b>Net cash flows used by investment activities</b>                                                         |         | <b>(3,709,377)</b> | <b>(2,397,733)</b> |
| <b>Cash flows for financing activities:</b>                                                                 |         |                    |                    |
| Proceeds from loans and borrowings                                                                          |         | 5,074,675          | 3,051,011          |
| Repayments of loans and borrowings                                                                          |         | (3,194,085)        | (2,472,681)        |
| Transaction costs related to loans and borrowings                                                           |         | (10,084)           | -                  |
| Payments of financial lease liabilities                                                                     |         | (935)              | (1,190)            |
| Dividends paid to owners of the Company                                                                     |         | (1,309,136)        | (816,521)          |
| Dividends paid to non-controlling interests                                                                 |         | (86,328)           | (78,031)           |
| Proceeds from government grants                                                                             |         | -                  | 255                |
| Payments of capital of derivatives designated as cash flow hedge                                            |         | (12,384)           | -                  |
| Other cash flows from financing activities                                                                  |         | (3,450)            | -                  |
| <b>Net cash flows originated (used) by financial activities</b>                                             |         | <b>458,273</b>     | <b>(317,157)</b>   |
| <b>Net cash and cash equivalents decrease</b>                                                               |         | <b>(31,145)</b>    | <b>(139,988)</b>   |
| Effect of movements in exchange rates on cash held                                                          |         | 27,860             | (4,139)            |
| Cash and cash equivalents at the beginning of the year                                                      |         | 1,194,499          | 1,338,626          |
| <b>Cash and cash equivalents at the end of the year</b>                                                     |         | <b>1,191,214</b>   | <b>1,194,499</b>   |
| <b>Restricted resources</b>                                                                                 |         | <b>183,609</b>     | <b>186,147</b>     |

The notes 1 to 46 are an integral part of these consolidated financial statements

  
 Jorge Londoño De la Cuesta  
 Chief Executive Officer

  
 Jorge Andrés Tabares Ángel  
 Chief Financial Officer

  
 John Jaime Rodríguez Sosa  
 Accountant  
 T.P. 144842-T

## Index to consolidated financial statements

|          |                                                                                                                         |     |
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## Notes to the consolidated financial statements of EPM Group for the periods ended on December 31, 2017 and 2016

(Expressed in millions of Colombian pesos, except when indicated otherwise).

### Note 1. Reporting Entity

Empresas Públicas de Medellín E.S.P. (hereinafter, "EPM Group") is the holding company of a multi-Latin enterprise group made up of 48 companies and a structured entity<sup>1</sup>; that have presence in the provision of public utilities in Colombia, Chile, El Salvador, Guatemala, Mexico and Panama.

EPM is a municipal decentralized entity created in Colombia through Decision 58 dated August 6, 1955 issued by the Administrative Council of Medellín, as an autonomous public institution. It was transformed into an industrial and commercial government company through Decision 069 of December 10, 1997 of the Medellín Council. Due to its juridical nature, EPM has administrative, and financial autonomy and its own equity according to Article 85 of Law 489 of 1998. The capital stock with which the company was constituted and operates with, as well as its equity, is of a public nature, and its only owner is the Municipality of Medellín. Its main corporate domicile is located at Carrera 58 No. 42-125 in Medellín, Colombia. It has not established a term of duration.

EPM provides domiciliary public services of aqueduct, sewage and gas distribution. It also can provide the domiciliary public utilities of cleaning, waste treatment and utilization, as well as the supplementary activities that are related to abovementioned of each and every public utility services.

EPM Group offers its services through the following sectors:

- Energy: it includes the Energy Generation, Transmission, Distribution and Commercialization, and Natural Gas Distribution businesses.
- Aqueduct: integrated by the Aqueduct, Residual Waters and Cleaning businesses.
- Other segments: Consists of the following investment vehicles: EPM Inversiones, Panamá Distribution Group S.A. (PDG), EPM Chile, and EPM Capital Mexico. Additionally, Max Seguros Ltd., a captive reinsurance company formed to negotiate, engage, and provide reinsurance services.
- Also, the Company participates in the telecommunications business, a segment in which the Company has significant influence since August 2014, through EPM Telecomunicaciones S.A. - UNE and its affiliates Edatel S.A. E.S.P, Empresa de Telecomunicaciones de Pereira S.A. - ETP, Orbitel Servicios Internacionales S.A. - OSI, Cinco Telecom Corporation CTC, Orbitel Comunicaciones Latinoamericanas S.A - OCL, Inversiones Telco S.A.S. and Colombia Móvil S.A. provides voice, data, Internet, professional services, and data center services, among others.

As of December 31, 2016, the Telecommunications Company of Pereira S.A. - ETP was merged with UNE EPM Telecomunicaciones S.A. (Absorbing entity) and Orbitel Comunicaciones Latinoamericanas S.A. - OCL was liquidated.

The consolidated financial statements of EPM Group corresponding to the year ended as of December 31, 2017, were authorized by the Board of Directors to be published on March 20, 2018. The main activities of EPM Group are described in Note 45 Operation Segments.

1. Autonomous Patrimony Social Financing. Under International Financial Reporting Standards (IFRS), it is considered a structured entity that forms part of the consolidation perimeter of the financial statements of the EPM Group.

## 1.1 Legal and regulatory framework

The activities of EPM Group, domiciliary public utilities, are regulated in Colombia, Chile, El Salvador, Guatemala, Mexico, and Panama. The most significant matters that apply are:

### 1.1.1 Legislation for Colombia

The activity that EPM Group carries out, domiciliary public utility services, is regulated in Colombia mainly by Law 142, Public Utilities Act, and Law 143 of 1994, the Electricity Act.

The functions of control, inspection and supervision of the entities that provide domiciliary public utilities are exercised by the Office of the Superintendent of Domiciliary Public Utilities (SSPD, for its initials in Spanish).

Because of being a municipal decentralized entity, EPM is subject to the political control of the Council of Medellín, to the fiscal control of the Office of the General Comptroller of Medellín, and to the disciplinary control of the Office of the General Prosecutor.

#### 1.1.1.1 Regulation Commissions

Decree 1524 of 1994 delegates in the regulation commissions the presidential function of stating general policies of administration and control of efficiencies in domiciliary public utilities.

These entities are:

- The Energy and Gas Regulatory Commission (CREG, for its Spanish initials), a technical body attached to the Ministry of Mines and Energy (MME), that regulates the tariffs for energy sales and the aspects related to the operation of the Wholesale Energy Market (MEM, for its initials in Spanish) and, more general, to the provision of electricity, gas and liquid fuel services.
- Regulatory Commission of Drinking Water and Basic Sanitation (CRA, for its initials in Spanish), regulates the tariffs of aqueduct, sewage and cleaning. It is a technical body attached to the Ministry of Housing, City and Territory.

#### 1.1.1.2 Regulation by sector

##### 1.1.1.2.1 Activities of the aqueduct, sewage and waste management sector

Law 142, Public Utilities Act, defined the aqueduct, sewage and cleaning services:

**Aqueduct:** Also called drinking water domiciliary public utility. Activity consisting on the municipal distribution of water, which is fit for human consumption, including its connection and measurement. It includes complementary activities such as water catchment and its processing, treatment, storage, conduction and transportation.

**Sewage:** Activity that consists on the municipal collection of waste, mainly liquid, through piping and conduits. It includes the complementary activities of transportation, treatment, and final disposal of such waste.

**Waste management:** Activity that consists on the municipal collection of waste, mainly solid waste. It includes the complementary activities of transportation, treatment, utilization, and final disposal of such waste

The tariff framework for these utilities is established in Resolutions CRA 688 of 2014 and CRA 735 of 2015 issued by the Potable Water and Basic Sanitation Regulation Commission - CRA, which make mandatory the fulfillment of both quality and coverage indicators and therefore the review of investments and operations in the two segments.

##### 1.1.1.2.2 Activities from the electric sector

Law 143 of 1994 segmented the electric power service into four activities: generation, transmission, distribution, and commercialization, which may be developed by independent companies. The purpose

of the legal framework is to supply the demand of electricity under economic and financial feasibility criteria and tend to an efficient, secure and reliable operation of the sector.

**Generation:** It consists on the production of electric power from different sources (conventional or non-conventional), developing this activity either exclusively or combined with another or other activities of the electric sector, regardless of which of them is the main activity.

**Transmission:** The national transmission activity is the transportation of energy in the National Transmission System (STN, for its initials in Spanish). It encompasses the set of lines, with its corresponding connection equipment that operate in tensions that are equal or greater than 220 kV. The National Transmitter is the legal entity that operates and transports electric power in the STN or has incorporated a company the purpose of which is the development of such activity.

**Distribution:** It consists on transporting electric power through a set of lines and substations, with the associated equipment, that operate at tensions lower than 220 KV.

**Commercialization:** An activity that consists on the purchase of electric energy in the wholesale market and its sale to other market participants or to the final regulated and non-regulated users, developing this activity either exclusively or combined with other activities of the electric sector, regardless of which of them is the main activity.

#### 1.1.1.2.3 Activities of the natural gas sector

Law 142 of 1994 defined the legal framework for the provision of domiciliary public utilities, a scope in which natural gas is defined as a public service (utility).

**Gas:** It is the set of activities targeted to the distribution of fuel gas, through pipes or another mean, from a place of collection of large volumes or from a central gas pipeline to the facilities of a final consumer, including their connection and measurement. This Law will also be applied to the complementary activities of commercialization from the production and transportation of gas through a main gas pipeline, or through other means, from the generation site to that where it connects to a secondary network.

### 1.1.2. Legislation of Chile

#### 1.1.2.1 Activities from the electric sector

In the Chilean electric market there are identified the activities of generation, transmission and distribution, regulated by the Electric Services General Act (LGSE, for its initials in Spanish).

In Chile there are four electric systems interconnected: two small systems that serve the south of the country, the Aysén System and the Magallanes System, which concentrate 0.29% and 0.62% of the installed capacity in the country respectively and two large systems, the Interconnected System of the Great North (SING, for its initials in Spanish) and the Central Interconnected System (SIC, for its initials in Spanish) which concentrate 28.06% and 71.03% of the country's installed capacity; and have a coordinated cargo dispatch operating from 2017.

The reforms in the Chilean electric sector started in 1978 with the creation of the National Energy Commission and were formalized with the approval of the Electric Act in 1982. Due to the privatization of the sector in Chile, as from 1980, there has been no participation of the Government.

#### 1.1.2.2 Sanitary service activities

The Sanitary Sector is made up by the group of entities which functions relate to the services of production and distribution of potable water and collection and disposal of waste water, that is, the companies in charge of providing those services and the Superintendency of Sanitary Services, regulatory and overseeing entity of this sector.

#### 1.1.2.3. Regulatory framework

**Electric:** According to the Electric Services General Law (LGSE, for its initials in Spanish), the National Power Commission is the competent authority to calculate the rates through the technical reports of

“knot price setting” (fijación de precio de nudo) that are subsequently established by decree of the Ministry of Economy, Promotion and Reconstruction. Current legislation establishes as a basic premise that the rates must represent the actual costs of electricity generation, transmission and distribution so that an optimal development of the electric systems can be obtained.

The legal framework of the Chilean electric sector is mainly conformed by:

- Decree Law N° 1 DFL N° 1 of 1982. The Electric Services General Law establishes the fundamental norms for the development of the economic activity in the electric industry. It may only be modified at the National Congress and its most relevant modifications are those that are applied through Law N° 19.940 of 2004 (Short Act I (“Ley Corta I”)), that reformed the regulatory framework of the Transmission, and Law N° 20.018 of 2005 (Short Act II (“Ley Corta II”)), that reformed the commercialization regime between generators and distributors for the supply of regulated clients. The bylaws, in turn, are elaborated by the sectorial bodies of the Executive Power and must be submitted to the norms established in the Law.
- Decree with Force of Law (DFL) No. 4 DFL of 2007. Approves modifications to the Decree with Force of Law No. 1 of 1982, General Law of Electric Services, on the subject of electric power.
- Law No 20.257 of 2008. It introduces modifications to the General Law of Public Services (GLPS) in respect to the generation of public power with renewable non-conventional energy sources.
- Law No. 20.402 of 2009. It creates the Ministry of Energy, establishing modifications to Decree Law No. 2.224 and to other legal legislation.
- Law No. 20,936 of 2016. Modifies Law 20,018 of 2005, establishes a new electric transmission system and creates an independent coordinating body from the national electricity system

**Sanitary:** In the current regulatory scheme, where the regulatory and monitoring function of the State is separated from the producing function, the Superintendency of Sanitary Services is created, which is the regulating and monitoring body of the sector. This body is a decentralized entity that has its legal status and own equity, subject to the supervision of the President of the Republic through the Ministry of Public Works. It performs the regulatory and monitoring functions of the activity of companies that operate in this sector.

The regulatory model places emphasis on two crucial aspects to introduce the economic rationality in the operation of the sector: the rates and the concessions regime, both aspects are contained in the legal framework under which the operation of the sector is regulated, being the function of the Superintendency of Sanitary Services that of applying and enforcing the provisions for the respective legal bodies: Decree with Force of Law No. 70 of 1988, Law of Rates and the Decree with Force of Law No. 382 of 1988, General Law of Sanitary Services.

The legal framework of the Chilean sanitary sector is made up mainly by:

- Law of the Superintendency of Sanitary services - Law 18.902 of 1990 (Modified by Law No. 19.549 of 1998 and Law No. 19.821 of 2002): it creates the Superintendency of Sanitary Services as a functionally decentralized service, with legal status and its own equity, subject to the supervision of the President of the Republic through the Ministry of Public Works.

To the Superintendency of Sanitary Services will correspond the monitoring of the providers of sanitary services, of the compliance with rules related to sanitary services and the control of industrial liquid waste that is connected to the rendering of services of sanitary companies, capable either officially or at the request of any interested party to inspect the sanitary infrastructure works made by the providers.

- Regulations of the General Sanitary Service Law, Supreme Decree (SD) of the Ministry of Public Works (M.P.O) No. 1199, Dec/2004 Published in the Official Diary on November 9, 2005): they approve the regulations of sanitary concessions of production and distribution of potable water and collection and

disposal of waste water and of the regulations on the quality of the customer service to the users of these services.

- Law of rates of sanitary services: Decree with Force of Law MOP No. 70 of 1988 - Published in the Official Diary on March 30, 1988.
- Code of Waters and its modifications: In the Decree with Force of Law No. 1.122 is regulated the property and the right of the use of the water. The latest modifications are: Law No. 20.017 of 2005 and Law No 20.099 of 2006.
- Regulation of the General Law of Sanitary Services - D.S. MOP No. 1199, December/2004: approves the regulations of the sanitary concession of production and distribution of potable water and of collection and disposal of waste water and of the regulations on the quality of the customer services to the users of these services.

#### 1.1.2.4 Regulatory entities

Some of the main regulatory entities for the energy service in Chile are:

- Ministry of Energy: It is the superior body of collaboration to the President of the Republic in the functions of governance and administration of the energy sector. This public body is responsible for determining the plans, policies and norms for the development of the electric sector. Further, it grants concessions for hydro-electrical centrals, transmission lines, substations, and electric distribution zones. The National Energy Commission (CNE, for its initials in Spanish) is attached to the Ministry of Energy.
- National Energy Commission (“Comisión Nacional de Energía - CNE”): is a public and decentralized entity with its own equity and full capacity to acquire and exercise rights and obligations that relate to the President of the country through the Ministry of Energy. In particular, the National Energy Commission leads the tariff fixation processes to the electricity and gas companies of the network. It is responsible for designing technical standards and calculating the regulated prices established in the Law. Likewise, it monitors and projects the current and expenses operation of the energy sector, through the generation of the works plan that constitutes an indicative guide for a ten-year expansion of the system. Likewise, proposes to the Ministry of Energy the legal and regulatory norms that are required in the matters of its competence.
- Superintendent of Electricity and Fuels (“Superintendencia de Electricidad y Combustibles - SEC”): It is the public body whose mission is to watch over the adequate operation of the electricity, gas and fuels services, in terms of their safety, quality and price. In addition to fixing technical standards, the SEC’s objective is to audit and oversee compliance with the legal and regulatory norms for generation, production, storage, transportation and distribution of liquid fuels, gas and electricity, to verify that the quality of services that are provided to the users be the one stated in those decisions and technical norms and that the operations and the use of the energy resources do not constitute danger to the people or their things. The institutional framework of SEC is Law 18410 of 1985, modified by Law 20402 of 2009.
- Independent Coordinator of the National Electric System: through Law 20.936, this coordinator is created to preserve the security of the service in the electrical system, guarantee an economic operation, guarantee open access to the transmission systems, coordinate and determine the economic transfers between companies. The Coordinator is an autonomous, non-profit entity and its board of directors is elected by the Essential Nominating Committee, its members are independent of the coordinated companies.
- The Panel of Experts: is an autonomous collegiate body created in 2004 by Law No. 19,940 whose function is to rule on differences of understanding, conflicts or non-conformities that result from the application of the electrical legislation between electric companies and other entities and

that these same submit to your consideration. The opinions of this entity are binding for the parties.

Some of the major regulatory entities for the sanitary sector (potable water and sewerage system) in Chile are:

- Ministry of Public Works (MOP, for its initials in Spanish): grants the concessions and promotes the supply of water and the sanitation in rural zones through its Sanitation Programs Department. Besides to the functions that are proper to it, in respect to the sanitary sector it corresponds to the administration of the legislation on the subject of water resources, the assignment of water rights and the approval of the concession rights to establish, construct and exploit sanitary services.
- Superintendence of Sanitary Services (SISS): entity of the State of Chile that regulates and monitors the companies that provide the potable water service and collection and treatment of wastewater of the urban population.
- Ministry of Health: monitors the quality of water in the sanitary services that are not under the jurisdiction of the Superintendence (that are not sanitary public utilities) and officializes the rules of quality studied under the provisions of the National Standardization Institute.
- Ministry of Economy, Development and Reconstruction: designs and monitors the implementation of public policies that affect the competitiveness of the country; It promotes and monitors the activities in the sectors of the industry, services and commerce. Its major lines of action are related to the design and promotion of Innovation and Entrepreneurship Policies. Its main function in respect to the sanitary sector is the determination of regulated prices, at the proposal from the Superintendence.

### 1.1.3. Legislation for El Salvador

A restructuring process of the electrical sector was developed in El Salvador, which was materialized in a juridical and institutional framework that aims to promote the competition and conditions necessary to assure the availability of an efficient energetic supply, capable of supplying the demand under technical, social, economic, environmental and financial feasibility criteria.

In the 90's, El Salvador pushed a process of reforms in the energetic sector that consisted of the restructuring of the hydrocarbons and electricity sectors, the privatization of most government companies that provided energetic goods or services and the deregulation of the markets.

#### 1.1.3.1. Regulatory framework

The legal framework of the Salvadorian electric sector is formed by the Law of Creation of the General Superintendence of Electricity and Telecommunications ("Superintendencia General de Electricidad y Telecomunicaciones") (SIGET), issued through Legislative Decree 808 of September 12, 1996, that gave juridical life to the regulatory entity; as well as by the General Law of Electricity ("Ley General de Electricidad") (LGE), issued through Legislative Decree 843 of October 10, 1996, and by the Bylaws of the General Law of Electricity, established through Executive Decree 70 of July 25, 1997, including its modifications.

As a result of the restructuring process of the electrical sector the following was created: *Unidad de Transacciones S.A.* (UT), that manages the Wholesale Market of Electric Energy, and *Empresa de Transmisión de El Salvador* (ETESAL), at the same time that distribution companies were privatized as well as those of the thermal generation. Further, the hydro-electrical and geothermal generation activities, and a private partner was incorporated in the latter.

#### 1.1.3.2. Regulatory entities

Some of the main regulatory entities at the energetic level in El Salvador are:

- **Ministry of Economy (MINEC):** Central government institution which purpose is the promotion of the economic and social development through the increase of the production, the productivity, and the rational utilization of the resources. Among its responsibilities are to define the commercial policy of the country and the follow-up and momentum to the Central American economic integration. It has under its command the Direction of Electric Energy and the Social Investment Fund for the Local Development; further, it chairs the National Council of Energy. Likewise, it contributes to the development of the competence and competitiveness of productive activities, both for the internal market and for the external market.
- **General Superintendence of Electricity and Telecommunications (SIGET):** It is a not-for-profit public service autonomous institution. Such autonomy includes the administrative and financial aspects and it is the competent entity to apply the norms contained in international treaties on electricity and telecommunications in force and effect in El Salvador, as well as in the laws that rule the electricity and telecommunications sectors and its bylaws, in addition to knowing about the non-compliance therewith.
- **Transactions Unit (UT, for its initials in Spanish):** Among its functions is the managing with transparency and efficiency of the wholesale electrical energy market and operating the transmission system, maintaining the security and the quality and providing to the market operators satisfactory responses for the development of its activities. Likewise, it coordinates with the Regional Operator Entity (EOR) the energy transactions that El Salvador carries out with other countries at Central American and international levels. Finally, it determines responsibilities in case of failures in the systems.

#### 1.1.4 Legislation for Guatemala

The Political Constitution of the Republic of Guatemala of 1985 declared the electrification of the country as national urgency, based upon plans formulated by the State and the municipalities, in a process that could count with the interest of the private initiative.

##### 1.1.4.1 Regulatory Framework

With the Political Constitution as a legal handle, in 1996 it was decreed the General Electricity Act, through which the fundamental juridical norms were established to facilitate the acting of the different electrical system sectors.

##### 1.1.4.2 Regulatory entities

Some of the main energy regulatory entities in Guatemala are:

- **Ministry of Energy and Mines:** is the most important Guatemalan government entity of the electric sector. It is responsible for enforcing the General Electricity Act and related regulations, as well as for the coordination of policies between National Commission of Electric Energy (CNEE) and the Administrator of the Wholesale Market (AMM). This government dependency also has the authority to grant authorization permits for the operation of the distribution, transmission and generation companies.
- **National Electrical Power Commission (CNEE, for its initials in Spanish):** The Guatemalan electric sector is regulated by the CNEE, a regulatory entity created pursuant to the General Electricity Act, as a technical body of the Ministry of Energy and Mines and subordinated to it. It consists of three members appointed by the President of the Republic from groups of three proposed by the Principals of universities, the Ministry of Energy and Mines and the Wholesale Market agents. The duration of each directory is five years.
- **Wholesale Market Administrator (AMM, for its initials in Spanish):** is the entity in charge of managing the Guatemalan wholesale market, a private entity created by the General Electricity Act, that coordinates the operation of the generating facilities, the international interconnections, and the transmission lines that conform the national electricity system. Likewise, it is responsible for the system's safety and operation conducting an economically

efficient shipment and managing the electricity resources, in such a way that it minimizes the operating costs, including the costs of failures, within the restrictions imposed by the transmission system and the service quality requirements. Likewise, the AMM is in charge of the scheduling of the supply and the shipment of electricity. AMM's bylaws are subject to CNEE's approval. If a generation, transmission or distribution company, or an electricity agent or large user does not operate their facilities in conformity with the regulations established by the AMM, the CNEE has the capacity to sanction it with penalties and, in the case of a severe violation, it may require to be disconnected from the national electricity system.

### 1.1.5 Legislation for México

#### 1.1.5.1 Regulatory framework for the water and sanitary sector

In the government environment, each of the 32 federative entities has their respective water laws, with sensibly equal purposes in spite of the diverse denominations. The modifications to the government legislation associated to the provision of water and sanitation services mainly derived from a series of initiatives promoted by the National Waters Commission (CAN, for its initials in Spanish) in the 90's.

A summary of the evolution from then and until the beginning of this decade that the legal state regime has experienced with respect to water and sanitation is:

- Reforms in 1983 to Article 115 of the constitution, with which it was ratified and strengthened the municipal character of the water and sanitation services, which forced to target the state authorities' role in this matter to assign them a subsidiary and somehow regulatory role.
- Government policies established to promote the creation of decentralized bodies (creation decrees) of the Municipal Administration, with the technical capacity and the administrative and financial autonomy necessary for the efficient provision of those services, together with the introduction of interest schemes of the private sector.
- Greater interest of the state authorities in the administration of the national waters, through covenants that, pursuant to the provisions of Article 116 of the constitution, can be entered into by the federation with the state governments with the purpose that the latter carry out or exercise different tasks or attribution, of the exclusive competence of the federal government. This possibility was reinforced even more with the reforms and additions to the National Waters Act that entered into force and effect in 2004.

#### 1.1.5.2 Regulatory entities

Some of the main regulatory entities in the sanitation sector in Mexico are:

- Secretariat of the Environment and Natural Resources ("Secretaría de Medio Ambiente y Recursos Naturales - SEMARNAT"): In the different environments of the society and of the public function, it incorporates criteria and instruments that assure the optimal protection, preservation, and utilization of the country's natural resources, thus forming an integral and inclusive environmental policy that allows achieving sustainable development, provided that they are not expressly entrusted to another office; likewise, in matters of ecology, environmental sanitation, water, environmental regulation of the urban development and the fishing activity, with the interest that shall correspond to other offices and entities.
- National Water Commission ("Comisión Nacional del Agua - CONAGUA"): With the participation of the society, it manages and preserves the national waters to achieve the sustainable use of the resource with the co-responsibility of the three orders of the government and the society in general. It is the authority with technical quality and promoter of the government orders in the integrated management of the hydric resource and its inherent public goods, and protects the water bodies to guarantee a sustainable development and preserve the environment.
- Social Development Secretariat ("Secretaría de Desarrollo Social - SEDESOL"): Defines the commitments of the administration to advance in the achievement of an effective social



development. Formulates and coordinates the solidary and subsidiary social policy of the federal government, targeted to the common good, and executes it in a co-responsible fashion with the society.

#### 1.1.6 Legislation for Panama

The electrical sector in Panama is divided into three activity areas: generation, transmission and distribution. The country has established a regulatory structure for the electrical industry, based upon the legislation that was approved between 1996 and 1998. This framework creates an independent regulator, the National Authority of the Public Utilities (“Autoridad Nacional de los Servicios Públicos - ASEP”), and also creates a transparent process for setting the tariffs for the sale of energy to regulated clients.

##### 1.1.6.1 Regulatory framework

The regulatory regime mainly consists of the following norms:

- Law 6 of February 3, 1997. It dictates the regulatory and institutional framework for the provision of the electricity public service. It establishes the regime to which the electrical energy distribution, generation, transmission and commercialization activities shall be subject.
- Law 57 of October 13, 2009. Several modifications are made to Law 6 of 1997; among them there are: the obligation of the generating companies to participate in the energy or power purchase processes, the compulsoriness for Empresa de Transmisión Eléctrica S.A. (ETESA) of buying energy in representation of the distributing companies, and the increase in fines that the regulator may impose of up to \$20 million Balboas, and at the same time it establishes the right of the clients to refrain from paying for the portion they claim and grants a 30-day term to claim before the regulator in case of not being satisfied with the response given by the distributing company.
- Law 58 of May 30, 2011. It modifies those articles related to rural electrification, among which there are: the modification of the calculation of subsidy that the Rural Electrification Office (“Oficina de Electrificación Rural - OER”) must pay to the distributors for a 4-year period (formerly it was paid to 20 years) and the creation of a rural electrification fund for 4 years, which shall be formed with the contributions of the market agents that sell electric energy and shall not exceed 1% of their net profit before taxes.

##### 1.1.6.2 Regulatory entities

Some of the main energy regulatory entities at the energetic level in Panama are:

- The Energy Secretariat (“Secretaría de Energía”): its mission is to formulate, propose and promote the national energy policy with the purpose of guaranteeing the security of the supply, the rational and efficient use of the resources and energy in a sustainable fashion, as per the National Development Plan (“Plan de Desarrollo Nacional”). Currently, it is processing before the Electrical Transmission Company (“Empresa de Transmisión Eléctrica - ETESA”) the formation of an energetic matrix with greater and more varied renewable and clean resources (Aeolian, gas, among others.)
- The National Authority of the Public Services (“Autoridad Nacional de los Servicios Públicos - ASEP”): Established according to the law of the regulatory entity of public services of 1996. It is an autonomous Government entity with the responsibility of regulating, controlling, and auditing the provision of the water and sanitary sewage, telecommunications, radio and television, electricity and natural gas services.

On February 22, 2006, through Decree Law 10, the Public Services Regulatory Entity (“Ente Regulador de los Servicios Públicos - ERSP”) was restructured and changed its name; for that reason, since April 2006 it is known as the ASEP, with the same responsibilities and functions that the regulatory entity had but with a general administrator and an executive director, each designated by the President of the Republic of Panama and ratified by the National Assembly.

Likewise, it has three national directors under the authority of the general administrator: one for the electricity and water sector, one for the telecommunications sector, and one for the user service sector. The national directors are responsible for issuing resolutions related to their respective industries and the appeals thereto are solved by the general administrator as a final stage of the administrative process.

- The Planning Unit of the Electric Transmission Company (“Unidad de Planificación de la Empresa de Transmisión Eléctrica - ETESA”): It elaborates the reference expansion plans and projects the global requirements of energy and the fashions to satisfy those requirements, including the development of alternative sources and establishing programs to preserve and optimize the use of energy. The public service companies are called to prepare and present their expansion plans to ETESA.
- The National Dispatching Center (“Centro Nacional de Despacho - CND”): It is operated by ETESA. It plans, supervises and controls the integrated operation of the National Interconnected System (“Sistema Interconectado Nacional”). Receives the supplies of the generators who participate in the power sale market (spot), it determines the spot prices of energy, administers the transmission network, and provides the liquidation values between suppliers, producers, and consumers, among others.
- The Rural Electrification Office (“Oficina de Electrificación Rural - OER”): It is responsible for promoting the electrification in non-served, non-profitable and non-franchised rural areas.

## 1.2. External Audit

As included in the Code of Good Corporate Governance, the external audit is established as a control mechanism with the purpose Audit consolidated financial statements and accounting policies in accordance with International Financial Reporting Standards (NIIF, for its initials in Spanish), adopted in Colombia by the General Accounting Office of the Nation (CGN, for its initials in Spanish). As well as the provision of an independent opinion with respect to the reasonableness with which they indicate the company’s financial position as of the cut-off date of each accounting exercise.

## Note 2. Significant Accounting Policies

### 2.1 Bases for the preparation of the financial statements

The consolidated financial statements of EPM Group are prepared in conformity with the International Financial Reporting Standards (hereinafter, IFRS) and the International Accounting Standards (hereinafter, IAS) issued by the International Accounting Standards Board (hereinafter, IASB), as well as the interpretations issued by the Interpretations Committee (hereinafter, IFRIC). These financial statements are harmonized with generally accepted accounting principles in Colombia as set out in the Annex to Decree 2420 of 2015 and subsequent amendments accepted by the National Accounts Office through Resolution 037 of 2017.

The presentation of financial statements in accordance with IFRS requires that estimates and assumptions must to be made and affect the amounts reported and disclosed in the financial statements, without undermining the reliability of the financial information. Actual results may differ from those estimates. The estimates and assumptions are constantly revised. The review of accounting estimates is recognized in the period where the estimates are revised if the review affects such period or in the review period and future periods, if it affects both the current and the future periods. The estimates made by Management, in applying the IFRS, that have a material effect on the financial statements, and those that imply significant judgments for the annual financial statements, are described in greater detail in Note 3 - Significant accounting judgments, estimates, and causes for uncertainty in the preparation of the financial statements.

EPM and each of the subsidiaries present separate or individual financial statements, as applicable, for compliance before the controlling entities and for internal administrative follow-up purposes and provide information to the investors

Assets and liabilities are measured at cost or amortized cost, with the exception of certain financial assets and liabilities and the investment properties that are measured at fair value. The financial assets and liabilities measured at fair value correspond to those that are classified in the category of fair value assets and liabilities through profit and loss, and for some equity investments at fair value through equity, all the financial derivatives, assets and liabilities recognized that are designated as hedged items in a fair value hedging through other comprehensive income and those that do not comply with hedging accounting through profit or loss, the carrying value of which is adjusted with the changes in fair value attributed to the risks subject matter of the hedging.

The consolidated financial statements are presented in Colombian pesos and their figures are expressed in millions of Colombian pesos.

## 2.2 Consolidation principles

The consolidated financial statements include the financial statements of EPM and its subsidiaries as of December 31, 2017 and December 31, 2016. Using the global integration method, EPM consolidates the financial results of the companies over which it exercises control, which are detailed in Note 8 Investments in subsidiaries.

The control is obtained when any of the Group's companies control the relevant activities of the subsidiary, which are generally the operating and financing activities, is exposed, or has rights, to the variable returns of this and has the ability to use its power on the subsidiary to influence on its performance.

In general, there is a presumption that a majority of the voting rights ends up taking control. To support this presumption, and when EPM Group has less than the majority of the voting or similar rights of an investee entity, EPM Group considers all the pertinent facts and circumstances to evaluate whether it has the power over an investee company, including the contractual agreements with the other holders of votes in the investee entity, the rights arising from other contractual agreements, and the voting rights of EPM Group as the potential voting rights. EPM Group reevaluates whether or not they control the investee, if the facts and circumstances indicate that there are changes in one or more of the three controlling elements.

The consolidated financial statements of EPM Group are presented in Colombian pesos, which is the functional and presentation currency of EPM's, which is the controlling company of EPM Group. Every subsidiary of EPM Group determines their own functional currency and includes the items in their financial statements using that functional currency.

All the companies of EPM Group prepare and present their financial statements under IFRS according to the Group's accounting policies, except for the international companies that, due to their own country's regulation cannot apply IFRS, in which case they homologate their local practices to the Group's accounting policies at the moment of reporting information for the consolidation of the financial statements.

For consolidation purposes, the subsidiaries' financial statements are prepared under EPM Group's accounting policies and are included in the consolidated financial statements from the acquisition date to the date when EPM Group loses their control.

Intra-group assets, liabilities, equity, revenues, costs, expenses and cash flows are eliminated in the preparation of the consolidated financial statements. Those related to transactions between Group Companies, including unrealized internal results, which are eliminated in their entirety.

The consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ends when the Group loses control of the subsidiary. Specifically, the income and expenses of a subsidiary

acquired or sold during the year are included in the consolidated statement of comprehensive income from the date the Group obtains control until the date on which it ceases to control the subsidiary.

When EPM Group loses control over a subsidiary, the assets (including the goodwill), liabilities, non-controlling interests, and other components of the net equity are written-off; any residual interest it may retain is measured at fair value; the gains or losses that arise from this measurement are recognized in the results for the period.

Non-controlling interests in the consolidated net assets of the subsidiaries are presented separately from EPM Group's equity. The results for the period and the other comprehensive income are also attributed to the non-controlling and controlling interests.

Any changes in the interest share of EPM Group in subsidiaries that do not result in the loss of control, are recorded as equity transactions. The carrying value of EPM Group's controlling interest and the non-controlling interest are adjusted to reflect the changes in their relative interest in the subsidiaries. Any difference between the amount for which the controlling interest, the non-controlling interest, and the fair value of the consideration paid or received are adjusted, is directly recognized in net equity.

Whenever EPM Group loses control over a subsidiary, the gain or loss is recognized in operations and is calculated as the difference between: the fair value amount of the consideration received and the fair value of any interest retained and the prior carrying amount of the assets (including the goodwill) and the liabilities of the subsidiary and any non-controlling interest. All amounts related to the subsidiary, previously recognized in the other comprehensive income are recorded as if the Group had directly disposed the assets or liabilities related to it (i.e., reclassified into profit or loss or transferred to another equity category as allowed by the applicable IFRS). The fair value of the investment retained in the previous subsidiary on the date when control is lost, is considered as the fair value in the initial recognition for its subsequent measurement either as an investment made in a financial instrument, an investment made in a joint venture or in an associate.

### **2.3 Classification of assets and liabilities into current and non-current**

An asset is classified as current asset when it is mainly maintained for negotiation purposes or it is expected to be realized over a term not to exceed one year after the period being reported, or it is cash and cash equivalents if it is not subject to restrictions for exchange or for being used in the cancellation of a liability over a term not to exceed one year after the period being reported. All other assets are classified as non-current assets.

A liability is classified as current liability when it is mainly kept for negotiation purposes or it is expected to be liquidated over a term not to exceed one year after the period being reported or when EPM Group does not have an unconditional right to postpone its liquidation for at least one year after the period being reported. All other liabilities are classified as non-current liabilities.

All derivative instruments for which the hedging accounting does not apply are classified as current or non-current, or are divided into current and non-current portions, based upon the evaluation of the facts and circumstances (i.e., the underlying contractual cash flows):

- When EPM Group keeps a derivative, for which the hedging accounting is not applied, during a term exceeding twelve (12) months as from the presentation date, the derivative is classified as non-current (or divided into current and non-current portions) so that it corresponds with the classification of the underlying item.
- Derivative instruments that are designated as hedging instruments and that are effective, are classified coherently with the classification of the underlying hedged item. The derivative instrument is divided into a current portion and another non-current only if such assignment can be made reliably.

### **2.4 Cash and cash equivalents**

The cash and cash equivalents in the statement of financial position and in the statement of cash flows include the money in cash and banks and the high-liquidity investments, easily convertible in a

determined amount of cash and subject to a non-significant risk of changes in their value, with maturity of three (3) months or less from their acquisition date. Callable bank overdrafts that are an integral part of the cash management of EPM Group represent a cash and cash equivalents component in the statement of cash flows.

## 2.5 Business combinations

Business combinations are recorded by the acquisition method. The acquisition cost is measured as the addition of the consideration transferred measured on the acquisition date at fair value and the amount of minority interest in the acquired entity. For each business combination, EPM Group decides whether the non-controlling interests in the acquired entity should be measured at their fair value or for the proportional part of the identifiable net assets of the acquired entity. All costs related to the acquisition are recognized as expenses when incurred and are included in administration expenses.

Identifiable assets acquired, contingent assets and liabilities assumed from the acquired entity are recognized at fair value on the acquisition date, except that:

- Deferred tax assets or liabilities and the assets or liabilities related to employee benefit agreements shall be recognized and measured in conformity with IAS 12 Income Taxes and IAS 19 Employee Benefits, respectively.
- Liabilities or equity instruments related to payment agreements based upon stock of the acquired entity or payment agreement based upon Group's stock made as a replacement of the agreements with payment based upon stock of the acquired entity are measured in conformity with IFRS 2 Share-based payments at the date of acquisition.
- The assets (or group of assets for disposal) that are classified as available-for-sale in conformity with IFRS 5 Non-Current Assets Available-for-Sale and Discontinued Operations are measured in conformity with such Standard.

When EPM Group acquires a business, the financial assets and liabilities assumed for the classification and appropriate designation in conformity with contractual terms, the economic circumstances, and the pertinent conditions on the acquisition date are evaluated. This includes the separation of those derivatives implicit in the contracts hosted by the acquired entity.

The Group recognizes an intangible asset acquired in a business combination, regardless of the goodwill, provided that such intangible asset meets the criteria for recognition, is identifiable, or arises from contractual and legal rights; it measures the value of a reacquired right recognized as an intangible asset, based on the remaining contractual term of the related contract, regardless of whether the market participants would consider potential contractual renewals to determine the fair value.

If a business combination is carried by stages, any prior interest is valued once again as of their acquisition date at fair value and any resulting gains or losses are recognized in operations. The accounting treatment of what is recorded in the Other comprehensive income (ORI, for its Spanish initials), at the moment of the new purchase, i.e., the amounts resulting from the previous interest in the acquired entity as of the acquisition date that had been previously recognized in other comprehensive income, are reclassified into the result for the period, provided that such treatment were appropriate in case such interest were sold.

If the initial recording of a business combination is not finalized at the end of the period for presentation of the financial statements when the combination takes place, the Group reports the provisional amounts of the items for which recording is incomplete. During the measurement period, the acquiring entity recognized adjustments to the provisional amounts or recognizes additional assets or liabilities necessary to reflect the new information obtained on facts and circumstances that existed on the acquisition date and if, they had been known, they would have affected the measurement of the amounts recognized on that date.

The consideration transferred is measured as the added value of the fair value, on the acquisition date, of the assets delivered, the liabilities incurred in or assumed, and equity instruments issued by EPM Group, including any contingent consideration, to gain control of the acquired entity.

Goodwill is measured as the excess of the consideration amount transferred, the value of any non-controlling interest, and, whenever applicable, the fair value of any interest previously maintained in the acquired entity; over the net value of the acquired assets, the liabilities and the contingent liabilities assumed on the acquisition date. The resulting gain or loss of the measurement of the interest previously maintained is recognized in the results for the period or in the other comprehensive income. When the consideration transferred is lower than the fair value of the net assets of the acquired entity, the corresponding gain is recognized in the results for the period, on the acquisition date.

Any contingent consideration of a business combination is classified as asset, liability or equity and is recognized at fair value on the acquisition date and is included as part of the consideration transferred in a business combination. The changes subsequent to the measurement period made to the fair value of a contingent consideration, classified as financial asset or liability are recognized in the results for the period or in the case of concrete liabilities designated at fair value with changes in profit and loss, the amount of the change in fair value that is attributable to changes in the credit risk of the liability are recognized in the other comprehensive income; when it is classified as equity it is no measured again; its subsequent liquidation is recognized within equity. If the consideration does not classify as a financial liability it is measured in conformity with the applicable IFRS; according to the foregoing, an asset or liability is re-measured on its reporting date in conformity with IFRS 9 Financial Instruments or IAS 37 Provisions, contingent liabilities and contingent assets whenever appropriate.

The accounting policy established to record changes at fair value of the contingent benefit during the measurement period is as follows: all changes at fair value of the contingent consideration that classify as measurement period adjustments, are retrospectively adjusted, with the corresponding adjustments against the goodwill. The measurement period adjustments are adjustments that arise from the additional information obtained during the “measurement period” (which may not exceed one year as from the acquisition date) on facts and circumstances that existed on the acquisition date.

Goodwill acquired in a business combination is assigned, on the acquisition date, to the cash generating units - (UGE, for its initials in Spanish) of EPM Group, that are expected to be benefited with the combination, regardless of whether other assets or liabilities of the acquired entity are assigned to those units. The capital gain/added value that arises from the acquisition of a business is recorded at cost on the acquisition date less the accumulated impairment losses, if any.

For impairment assessment purposes, goodwill is assigned to each of the CGUs (or groups of CGUs) of the Group that expects to obtain benefits from the synergies of this combination.

The CGUs that are assigned the capital gain are subject to annual impairment assessments, or with shorter frequency if there is indication that the unit may have suffered impairments. If the recoverable amount of the CGU is lower than the carrying value of the unit, the impairment loss is assigned first in order to reduce the carrying value of the capital gain assigned to the unit and then to the other assets of the unit, proportionately, taking as a base the carrying value of each asset in the unit. Any impairment loss for the capital gain is directly recognized in profits or losses. The impairment loss recognized for capital gain purposes may not be reverted in the following period.

When the goodwill is part of a CGU and a portion of the operation within that unit is sold, goodwill associated to the operation sold is included in the carrying value of the transaction at the moment of determining the gain or loss for the disposal of the operation. The goodwill that is written-off is determined based upon the operation’s portion sold, which is the ratio between the carrying value of the operation sold and the carrying value of the CGU.

If the initial recognition of a business combination is incomplete at the end of the accounting period where the combination takes place, EPM Group discloses the provisional values of the items the recording of which is incomplete. These provisional values are adjusted during the measurement period and are the additional assets and liabilities are recognized to reflect the new information obtained on facts and

circumstances that existed on the date of acquisition that would have affected the values recognized on that date.

Business combinations under common control are recorded using the interest unification method as a reference. Under this method, the assets and liabilities involved in the transaction are reflected at the same values used in the consolidation of the financial statements of the controlling company under common control, any difference between what is paid on the book value of the assets acquired and transferred liabilities are recognized as a patrimonial transaction; the income, costs and expenses of the combined companies (after elimination of transactions between them) are combined from the beginning of the period in which the combination occurs until the date of the combination of entities under common control.

## 2.6 Investments made in associates and joint ventures

An associate is an entity on which EPM Group has significant influence over the financial and operation policy decisions, without getting to have their control or joint control.

A joint venture is a joint agreement that EPM Group controls jointly with other participants, where the latter keep a contractual agreement that establishes the joint control and are entitled to the net assets of the agreement.

On the acquisition date, the excess of the acquisition cost over the share of the net fair value of the identifiable assets, liabilities and contingent liabilities assumed of the associate or joint venture, is recognized as goodwill. Goodwill is included in the carrying value of the investment, and is neither amortized nor individually subject to impairment tests of its value.

Investments in associates and joint ventures are measured in the consolidated financial statements using equity method, from the date in which the investee becomes an associate or joint venture; except if the investment or a portion thereof is classified as held for sale, in which case it is accounted for in accordance with IFRS 5 Non-current assets held for sale and discontinued operations. Through this accounting methodology, the investment is initially recorded at cost and is later adjusted in terms of the changes experienced, after the acquisition, by the portion of the net assets of the entity that corresponds to the investor. The Profit and Loss of the Group includes its participation in the Profit and Loss of the entity in which the interest is held and the other comprehensive income of the Group includes its participation in the other comprehensive income of the entity in which the interest is held. When there are variations in the percentages of participation in the associate or joint venture that do not imply a loss of significant influence or joint control, the effect of these changes is recognized directly in equity. When the participation of the Group in the loss of an associate or joint venture exceeds the participation of the Group thereon (which includes any long term participation that, in substance, forms part of the net investment of the Group in the associate or joint venture), the Group ceases to recognize its participation in future losses. Additional losses are recognized provided that the Group has contracted some legal or implied obligation or has made payments in the name of the associate or joint venture. When the associate or joint venture subsequently makes a profit, the Group resumes the recognition of its interest therein only after its share in the aforementioned profits equals the share of unrecognized losses.

All dividends received from the associate or joint venture, are recognized by reducing the carrying value of the investment.

The Group analyzes periodically the existence of impairment indicators and if necessary, recognizes losses for impairment in the investment of the associate or joint venture. Impairment losses are recognized in the Profit and Loss for the period and are calculated as the difference between the recoverable value of the associate or joint venture, the latter being the higher between the value in use and its fair value less the costs necessary for its sale and its carrying value.

When the significant influence over the associate or the joint control over the joint venture is lost, EPM Group measures and recognizes any residual investment that they may keep in it at its fair value. The difference between the carrying value of the associate or joint venture (taking into account the

corresponding items of other comprehensive income) and the fair value of the residual investment retained, with the amount coming from its sale, is recognized in the result for the period.

The Group discontinues the use of equity method from the date on which the investment ceases to be an associate or joint venture, or when the investment is classified as held for sale. Additionally, EPM Group records all the amounts previously recognized in other comprehensive income with respect to this associate or joint venture on the same basis that would have been required if such associate or joint venture had directly sold the financial assets or liabilities. Therefore, if a gain or loss previously recognized in other comprehensive income by the associate or joint venture had been reclassified into gains or losses at the moment of the sale of the related assets or liabilities, the Group would classify the gain or loss from equity into gains or losses (as a reclassification adjustment) upon discontinuation using equity method.

## 2.7 Joint Ventures

A joint operation is a joint agreement whereby the parties that have joint control of the agreement, have the right to the assets and obligations with respect to the liabilities, related to the agreement.

In joint operations, EPM Group, recognizes its share as follows: its assets, including its share in the assets jointly held; its liabilities, including its share in the liabilities jointly incurred in; its revenues from ordinary activities coming from the sale of its share in the product that arises from the joint operation; its share in the revenues from ordinary activities coming from the sale of the product that is made by the joint operation; and its expenses, including its share in the jointly incurred in expenses. EPM Group records the assets, liabilities, revenues from ordinary activities, and expenses related to its participation in a joint operation according to the guidelines applicable in particular to the assets, liabilities, revenues from ordinary activities, and expenses.

## 2.8 Functional and foreign currency

The Group's financial statements are presented in Colombian pesos, which is the functional currency and used for the presentation of the parent.

The operations denominated in foreign currency are initially recorded at the exchange rates of the functional currency in force and effect on the transaction date. Subsequently, the foreign-currency denominated monetary assets and liabilities are translated using the exchange rate of the functional currency, in force and effect as of the period's closing date; the non-monetary items that are measured at their fair value are translated using the exchange rates as of the date when their fair value is determined, and the non-monetary items that are measured at historic cost are translated using the exchange rates in force and effect as of the date of the original transactions.

All exchange differences are recognized in the statement of comprehensive income in the section "statement of income" except for the monetary items that provide an effective hedging for a net investment in a foreign business. These items and their tax effects are recognized in the other comprehensive income until the disposal of the net investment, at which moment they are recognized in the result for the period, as well as the exchange differences coming from foreign-currency loans to the extent that they are considered as adjustments of interest costs.

For the presentation of the consolidated financial statements of EPM Group, the assets and liabilities of the foreign businesses, including the goodwill and any adjustment to the fair value of the assets and liabilities that arose from the acquisition, are translated into Colombian pesos using the exchange rate in force and effect as of the closing date of the period being reported. The revenues, costs and expenses and cash flows are translated using the average exchange rates of the period.

The exchange differences that arise from the conversion of the foreign businesses are recognized in the other comprehensive income, as well as the exchange differences of the long-term accounts receivable or payable that are part of the net investment made abroad. In the disposal of the foreign business, the item of the other comprehensive income that relates to the foreign business is recognized in the result for the period.



The adjustments corresponding to goodwill and the fair value over identifiable assets and liabilities acquired that are generated in the acquisition of a foreign business are considered as assets and liabilities of such transaction and are translated using the exchange rate in force and effect at the end of each period being reported. Any exchange difference that may arise shall be recognized in other comprehensive income.

In addition, with respect to the partial disposal of a subsidiary (which includes a business abroad), the entity will again attribute the proportional part of the accumulated amount of the exchange differences to the non-controlling interests, and they are not recognized in gains or losses. In any other partial disposal (i.e., partial disposal of associates of joint agreements that do not involve the loss of significant influence and joint control by the Group), the entity shall reclassify into gains or losses only the proportional part of the accumulated amount of the exchange differences.

## 2.9 Revenue

The ordinary revenue corresponds basically to the result of the Group's main activity, which is the rendering of the services of electric power, gas, supply of water and sanitation, and is recognized when the service is rendered or at the time of the delivery of the goods, to the extent that it is probable that the economic benefit entered the Group and that the revenue can be reliably measured. Revenue is measured at the fair value of the consideration received or to be received, excluding taxes and other obligations. Discounts granted are recorded as adjustment value of revenue.

The most representative revenues of the energy business in Colombia are as follows:

**Reliability charge:** remuneration paid to a generating agent for the availability of Generation assets with the declared characteristics and parameters for the calculation of the firm energy for the reliability charge - ENFICC, which guarantees compliance with the Firm Energy Obligation - OEF that was assigned to it in an auction for the assignment of firm energy obligations or in the mechanism that makes its turn.

**Long-term contracts:** a contract for the sale of energy between traders and generators, which is settled in the energy exchange, under this modality of energy contract generators and traders freely agree on quantities and prices for the purchase and sale of energy Electricity in more than one day.

In the case of long-term energy purchase contracts, which have lower prices than the market and whose intention is not to use the energy purchased in the operation but to resell it in a market to obtain profits, it is considered that it does not comply with the Exception for own use

**Secondary Market of Firm Energy or Secondary Market:** A bilateral market in which generators negotiate a back-up contract with each other to ensure, for a given period of time, partial or total compliance with the firm's energy obligations acquired by one of them.

**Non Regulated Energy Sales:** This is the energy that is sold in the market to customers whose maximum demand exceeds a value in MW (megawatts) or a monthly minimum energy consumption in MWh (megawatts per MWh). Time by its acronym in English), defined by the regulatory body, by legalized installation, from which it does not use public networks of electric energy transport and uses it in the same property or in contiguous estates. Your purchases of electricity are made at freely agreed prices between the buyer and the seller.

**Energy sales regulated market:** It is the energy sold to customers whose monthly consumption is less than a predetermined value and is not entitled to negotiate the price paid by it, since both concepts are regulated; Usually uses energy for its own consumption or as an input for its manufacturing processes and not to develop marketing activities of it.

**Automatic Generation Regulation - AGC:** is a system for the control of the secondary regulation, used to accompany the variations of load through the Generation, to control the frequency within a range of operation and the programmed exchanges. The AGC can be programmed in centralized, decentralized or hierarchical mode.

Firm energy: this is the incremental contribution of a company's Generation plants to the interconnected system, which is carried out with a 95% reliability and is calculated based on a methodology approved by the Commission and the operational planning models used in the national interconnected system.

Gas revenues come from the distribution and sale of natural gas to the regulated and non-regulated market.

In the water business, revenues come from the provision of aqueduct and sewerage services.

In the other countries where the Group provides its services, including energy services, they have their own regulation, which is described by each country in section 1.1 Legal and regulatory framework

At the time of recognition of revenue, the Group evaluates based on specific criteria to identify when it acts as principal or commission agent and thus determine whether revenues should be recognized grossly or net for marketing activities.

Revenues and costs from contracts are recognized according to the degree of termination, which is measured based on the costs incurred to date as a percentage of the total estimated costs for each contract. When the result of a contract cannot be reliably measured, revenues are recognized only to the extent that the incurred expense meets the conditions to be recovered, while the expected losses are recognized immediately.

#### **2.10 Construction contracts**

When contract results can be reliably measured, EPM Group recognizes the revenues and expenses associated to construction contracts using the advance-level method, as a function of the proportion represented by the costs earned by the work conducted to that date and the estimated total costs up to its completion.

The cost incurred in includes the costs, including borrowing costs directly related to the contract, until the work has been completed. Administrative costs are recognized in the result for the period.

When the result of a contract under course cannot be reasonably estimated, the revenues thereof are recognized to the extent that it is probable to recover the costs incurred in. In those projects where it is probable that costs are greater than revenues, the expected losses are immediately recognized.

The payments received from the client before the corresponding work has been carried out, are recognized as a liability in the statement of financial position as other liabilities.

The difference between the revenues recognized in the statement of income and the billing is presented as asset in the statement of financial position denominated "Trade and other receivables", or as liability denominated "Other liabilities".

#### **2.11 Issued premiums and acquisition costs**

The written premiums comprise the total premiums receivable for the period of coverage. The income for written premiums is recognized proportionally, throughout the term of the policy; the income of these premiums is reduced by cancellations and annulments; for the case of cancellations, it corresponds to the amount of the premium accrued up to the time of cancellation due to the expiration of the payment deadline.

Revenues from premiums accepted in reinsurance are incurred at the time of receiving the corresponding account statements of the reinsurers.

Unearned premiums are calculated separately for each individual policy to cover the remaining portion of written premiums.

#### **2.12 Deferred income reinsurance commission**

In the Group, the deferred commissions are recorded in the development of their reinsurance activity, where the income from the values collected from the commissions to the reinsurers differs with the assignments of premiums made each month. The reinsurer pays the transferor a commission over the

premiums it receives in order to compensate the expenses of capturing the business and maintaining the receivable, the value of the commission is established as a percentage of it on the premium and will depend on the negotiation made.

### 2.13 Reinsurance

The Group considers reinsurance as a contractual relationship between an insurance company and a reinsurance enterprise, in which the first relinquishes total or partially, to the reinsurer, the risk or risks assumed with its insureds.

The premiums corresponding to the reinsurance ceded, are registered in accordance with the conditions of the reinsurance contracts and under the same criteria of direct insurance contracts.

All accounts receivable and accounts payable that are generated in the relationship with the reinsurer are handled independently and are not subject to compensation.

### 2.14 Government grants

Government grants are recognized at fair value when there is reasonable security that those subsidies shall be received and that all conditions linked to them shall be met. The grants that pretend to offset costs and expenses already incurred in, without subsequent related costs, are recognized in the statement of income of the period when they become enforceable. When the grants related to an asset, it is recorded as deferred income and is recognized in the result for the period on a systematic basis throughout the estimated useful life of the corresponding asset. The benefit of a government loan at an interest rate below market is treated as a government subsidy, measured as the difference between the amounts received and the fair value of the loan based upon the market interest rate.

### 2.15 Taxes

The fiscal structure of each country where EPM Group companies are located, the regulatory frameworks and the plurality of operations that the companies undertake make each of the companies a taxpayer (passive subject of taxes, rates and contributions) on a national and territorial basis. Those liabilities are generated by the central government, the states/departments, municipal entities and other active subjects, once the conditions foreseen in the corresponding standards issued are met.

Among the most relevant taxes are the income tax, the sales tax and the wealth tax:

#### Income tax

- **Current:** The current income tax assets and liabilities for the period are measured by the amounts that are expected to be recovered or paid to the fiscal authorities. The income tax expense is recognized in the current tax according to the cleaning made between the fiscal income and the book profit or loss affected by the income tax rate of the current year and pursuant to the provisions of the tax norms in each country. The tax rates and norms used for computing those values are those that are approved at the end of the period being reported, in the countries where EPM Group operates and generates taxable profits.

The fiscal profit differs from the gain profit reported in the statement of income for the period due to the revenue and expense items that are taxable or deductible in other years and items that shall not be taxable or deductible in the future.

Current Income tax assets and liabilities are also offset if they relate to the same fiscal authority and there is the intention to liquidate them for the net value or to realize the asset and liquidate the liability simultaneously.

- **Deferred:** The deferred income tax is recognized using the liability method calculated on the temporary differences between the fiscal bases of the assets and liabilities and their carrying values. The deferred tax liability is generally recognized for all taxable temporary differences and the deferred tax asset is recognized for all deductible temporary differences and for the future offsetting of fiscal credits and unused fiscal losses to the extent that it is probable the availability of future tax gains against which they can be imputed. Deferred taxes are not discounted.

The deferred tax assets and liabilities are not recognized if the temporary difference arises from the initial recognition of an asset or a liability in a transaction that is not a business combination and that, at the moment of the transaction, affected neither the book gain nor the fiscal profit or loss; and for the deferred tax liability case, whenever it arises the initial recognition of goodwill.

The deferred tax liabilities related to investments made in subsidiaries, associates and participations in joint ventures, are not recognized the timeliness of if the timing of the reversal of temporary differences can be controlled and it is probable that those differences will not be reversed in the near future and the deferred tax assets related to investments made in subsidiaries, associates and participations in joint ventures shall revert in the near future and it is probable the availability of future taxable gains profits against which these deductible differences will be imputed.

The carrying value of the deferred tax assets is reviewed in each presentation date and they are reduced to the extent that it is no longer probable that there are enough taxable gains profits to use for the entire or one part of the deferred tax asset. The deferred tax assets that are not recognized are reassessed on each presentation report date and are recognized to the extent that it is probable that future taxable gains profits allow their recuperation recovery.

Deferred tax assets and liabilities are measured at the fiscal rates expected to be applied in the period when the asset is realized or the liability is cancelled, based upon the fiscal rates and norms that were approved on the presentation date, or the approval procedure of which is about to be completed for such date. The measurement of deferred tax assets and liabilities will reflect the fiscal consequences that would be derived from the fashion in which the entity expects to recover or liquidate the carrying value of its assets and liabilities, at the end of the period being reported.

The deferred tax assets and liabilities must be presented as non-current.

The deferred tax assets and liabilities are offset if there is a legally enforceable right for that and are related to the same tax authority.

The deferred tax is recognized in the result for the period, except that related to items that are recognized outside the results; in this latter case, it will be presented in the other comprehensive income or directly in equity.

With the purpose of measuring the deferred tax liabilities and the deferred tax assets for investment properties that are measured using the fair value model, the carrying value of those properties is presumed that will be fully recovered through their sale, unless the presumption is challenged. The presumption is challenged when the investment property is depreciable and is kept within a business model the object of which is to consume, substantially, all the economic benefits that are generated by the investment property through the time, and not through the sale. Management reviewed the Group's investment property portfolio and concluded that none of the Group's investment properties is kept under a business model the objective of which is to consume, substantially, all economic benefits generated by investment properties over time rather than through the sale. Therefore, the management have determined that the presumption of "sale" established in the modifications to IAS 12 is not challenged.

Whenever the current tax or deferred tax arises from the initial recording of the business combination, the fiscal effect is considered within the recording of the business combination.

### **Sales tax**

All EPM Group companies located in Colombia that shall carry out sales of movable assets and provide taxed services or obtain exempt income are responsible for this tax in the common regime. Currently, the energy (power), aqueduct, sewage, and domiciliary gas services are excluded from this tax. The general rate is 19% and it exists a differential rate of 5%.

In Colombia, the Generation of income excluded in the particular case of public home services, VAT paid on purchases is part of a higher cost value. Also, when taxable income is generated, that is to say when taxed goods or services are sold, the VAT paid on the purchase or purchase of inputs for these sales will

be deductible from the value payable of the tax. When the company generates income that is excluded from VAT, but at the same time generates income that is exempt and taxed, in that case a proration of the VAT paid must be made to determine the percentage of VAT to be discounted.

In Panama, the Value Added Tax is generated in the transfer of movable assets, the rendering of services, and the importation of goods; certain goods and services are specifically exempt, such as medical services and fixed telephony that is not for commercial use. The tax rate is 7%.

In Guatemala, the transfer of movable assets, the rendering of services, the importation and some transactions with immovable assets generate the Value Added Tax; the tax rate is 12%.

The Value Added Tax rate in El Salvador is 13% and taxes the transfer of movable assets and the rendering of services. Nevertheless, the transfer of fixed assets that have been used during four or more years is not subject to this tax.

In Mexico, the Value Added Tax is generated in any transfer of goods or services, excluding exports and imports. The general rate is 16%.

The Value Added Tax (VAT) in Chile applies on sales and other transactions related to tangible movable assets, as well as to the payment of certain services. It also applies to certain transactions of real estate. The general tax rate is 19%.

### **Wealth tax**

In order to determine the accrual of the tax under IFRS, it is necessary to analyze the event or activity that produces the payment of the tax, that is, the taxable base, as stated in IFRIC 21 (IFRIC - International Financial Reporting Standards Interpretations Committee) in paragraphs 8, 9 and 10. For the wealth tax, as defined in Article 4 of Law 1739 of 2014, the taxable base is the value of the gross equity of the legal persons and de factor corporations owned as of January 1, 2015, 2016 and 2017, that is there is an “binding event” that generates the obligation in respect to the tax authority only upon arriving to January 1 of each of these years, therefore in this period it is when the tax of each year must be accrued; on the other hand, taking into consideration that this tax does not meet the conditions of being an asset, it is recorded in the Comprehensive income statement as an expense.

### **2.16 Non-current assets held for sale and discontinued operations**

Non-current assets and the groups of assets for disposal purposes are classified as held for sale if their carrying value will be recovered through a sales transaction, instead of by their continued use; these assets or groups of assets are presented separately in the statement of financial position as current assets and liabilities at their carrying value or their fair value less costs of sale, whichever is lower, and are neither depreciated nor amortized as from the date of their classification.

This condition is met if the asset or group of assets is available, in their current conditions, for immediate sale, the sales transaction is highly probable and is expected to be done within the year subsequent to the classification date.

Income, costs and expenses from a discontinued operation are presented separately from those of continued activities, in a single item after income tax, in the comprehensive income statement of the current period and the comparative period of the previous year, even though when the Group retains a share that does not grants control in the subsidiary after the sale.

When the Group is committed to a sales plan that involves the sale of an investment, or a portion of an investment, in an associate or joint venture, the investment or portion of the investment that shall be sold is classified as held for sale whenever the criteria described above are complied with, and the Group discontinues the use of the equity method in relation to the portion that is classified as available-for-sale. Any portion held of an investment made in an associate or in a joint venture that has not been classified as available-for-sale, continues to be recorded using the equity method. The Group discontinues the use of the equity method upon the sale when the sale results in the Group losing significant influence over the associate or the joint venture.

After the sale is made, the Group records any interest retained in the associate or joint venture in accordance with IFRS 9, unless the interest maintained continues to be an associate or a joint venture, in which case the Group uses equity method.

Income, costs and expenses from a discontinued operation are presented separately from those of continued activities, in a single item after income tax, in the consolidated comprehensive income statement of the current period and the comparative period of the previous year. Even though when the Group retains a non-controlling interest in the company that was once a subsidiary after the sale.

## 2.17 Properties, plant and equipment

Properties, plant and equipment are measured at cost, net of accrued depreciation and accrued impairment losses, if any. The cost includes the acquisition price; the costs directly related to putting the asset at the place and condition necessary to operate in the way foreseen by EPM; the costs corresponding to loans of the construction projects that take a substantial period to be completed, if the requirements of recognition are complied with; and the present value of the expected cost for the dismantlement of the asset after its use, if the criteria for recognition for a provision are met.

Constructions in progress are measured at cost less any loss for impairment recognized and includes those disbursements that are indispensable and that are directly related to the construction of the asset, such as professional fees, work supervision, civil works and, in the case of those assets qualified, the borrowing costs are capitalized. Those constructions in progress are classified in the proper categories of properties, plant and equipment at the time of their completion and when they are ready to use. The depreciation of these assets starts when they are ready to use in accordance with the same basis as in the case of other elements of property, plant and equipment.

In EPM Group, all additions or improvements made on the assets are capitalized as a greater value thereof, provided that any of the following conditions is met: a) They increase their useful life; b) They increase their productive capacity and operating efficiency thereof; and c) They reduce costs to the Company. All other repair and maintenance costs are recognized in the statement of comprehensive income as incurred, except when they increase the useful life, or the productive capacity and efficiency thereof, in which case they are capitalized.

The inventory of spare parts for specific projects, which are expected to have no turnover in one year and meet the criteria to be capitalized, known as replacement assets, are presented in other property, plant and equipment.

The initial depreciation when the asset is available for use and is calculated in a linear fashion throughout the estimated useful life of the asset as follows:

|                                          |                 |
|------------------------------------------|-----------------|
| Plants, ducts and tunnels                |                 |
| Construction                             | 50 to 100 years |
| Equipment                                | 10 to 100 years |
| Networks, lines and cables               |                 |
| Electrical transmission network          | 30 to 40 years  |
| Electrical distribution network          | 30 to 40 years  |
| Aqueduct network                         | 40 to 80 years  |
| Residual water network                   | 30 to 80 years  |
| Gas network                              | 60 to 80 years  |
| Buildings                                | 50 to 100 years |
| Communication and computing equipment    | 5 to 40 years   |
| Machinery and equipment                  | 7 to 40 years   |
| Furniture, fixture, and office equipment | 10 to 15 years  |
| Land <sup>(1)</sup>                      | 10 to 20 years  |

- (1) It corresponds to the affiliate Emvarias that depreciates the land on which it performs the final disposal activity according to the detriment it suffers with the disposal of solid waste, environmental degradation and period of recovery that goes beyond 20 years.

Useful lives are determined considering, among others, the manufacturer's technical specifications, the knowledge of the technicians that operate and maintain the assets, the geographic location and the conditions to which it is exposed.

The Group calculates the depreciation by components, which implies depreciating individually the parts of the asset that have different useful lives. The depreciation method used is straight line; The residual value that is calculated for the assets is not part of the depreciable amount.

A component of properties, plant and equipment and any significant part initially recognized, is written-off once disposed of or when it is not expected to obtain future economic benefits from its use or disposal. The gain or loss at the moment of writing the asset off, calculated as the difference between the net value of the disposal and the carrying value of the asset, is included in the statement of comprehensive income.

Any residual values, useful lives, and depreciation methods for the assets are revised and adjusted prospectively every exercise closing, if required.

## **2.18 Leases**

The determination of whether an agreement constitutes or contains a lease is based upon the essence of the agreement at its initial date, if compliance with the agreement depends upon the use of a specific asset(s), or if the agreement grants a right of use of the asset.

Leases are classified as finance and operating leases. A lease is classified as financial lease whenever it substantially transfers all the risks and benefits inherent to the ownership of the asset leased to the lessee; otherwise, it is classified as an operating lease.

### **EPM Group as a lessee**

The assets leased under financial leases are recognized and presented as assets in the statement of financial position at the beginning of the lease, for the fair value of the asset leased or the present value of the minimum lease payments, whichever is lower. The corresponding liability is included in the statement of financial position as a financial lease liability.

The assets leased under financial leases are depreciated throughout the useful life of the asset through the straight-line method. However, if there were no reasonable certainty that EPM Group shall get the ownership upon the lease term termination, the asset is depreciated throughout its estimated useful life or over the lease term, whichever is lower. Lease payments are divided between financial expenses, and debt reduction. The financial cost is recognized in the statement of comprehensive income of the period, unless they could be directly attributable to qualifying assets, in which case they are capitalized in conformity with the entity's policy for borrowing cost. Contingent lease installments are recognized as expenses in the period where incurred.

All payments for operating leases, including the incentives received, are recognized as expenses in the statement of comprehensive income, on a linear basis throughout the lease term, except when another systematic basis for distribution results being more representative because it reflects more adequately the timing pattern of the benefits of the lease for the user.

### **EPM Group as a lessor**

Assets rented under financial leases are not presented as property, plant and equipment given that the risks associated to the ownership have been transferred to the lessee; rather, a financial asset is recognized.

Land and buildings rented under operating leases are presented as investment properties, and the other assets given under operating lease are presented as property, plant and equipment. Initial direct costs incurred in the negotiation of an operating lease are added to the carrying value of the asset leased, and

are recognized as expenses throughout the lease term on the same basis as the revenues from the lease. Financial lease revenues are distributed during the lease term in order to reflect a constant yield rate in the net investment. Contingent leases are recognized in the period they are obtained.

Revenues proceeding from operative leases over investment properties are accounted for on a straight-line basis over the term of the lease.

### 2.19 Borrowing costs

Borrowing costs that are directly attributable to the acquisition, construction or production of an asset that necessarily takes substantial time to be prepared for their destined use or sale, are capitalized as part of the cost of the respective asset until the asset is ready for their intended use. The revenue from the temporary investment in specific loans pending to be consumed in qualified assets is deducted from the borrowing costs that qualify for their capitalization. All other borrowing costs are recorded as expenses in the period when incurred. Borrowing costs consists of interest and other costs incurred in by EPM with respect to the loan of funds. To the extent that the funds derive from generic loans and are used to obtain a qualified asset, the value of the costs susceptible of capitalization is determined by applying a capitalization rate (weighted average of the borrowing costs applicable to the general loans outstanding during the period) to the disbursements made in that asset.

The capitalization of borrowing costs begins on the date that the following conditions are met:

- Disbursements are incurred in relation to the asset.
- Loans costs incurred, and
- The necessary activities to prepare the asset for the intended use or for sale are carried out.

The capitalization of borrowing costs is suspended during periods in which the development of activities of a qualifying asset for periods of more than one year is interrupted. However, the capitalization of borrowing costs over a period is not interrupted if important technical or administrative actions are being undertaken. The capitalization of borrowing costs is also not suspended when a temporary delay is required as part of the process of preparing an asset qualified for its use or sale.

Capitalization of loan costs is terminated when substantially all of the activities necessary to prepare the asset have been completed for use or sale. When the asset has components that can be used separately while construction continues, the capitalization of borrowing costs on such components is stopped.

### 2.20 Investment properties

Investment properties are those held to obtain rentals and/or capital revaluations (including the investment properties under construction for those purposes). Investment properties are initially measured at cost, including transaction costs. The carrying value includes de replacement or substitution cost of one part of an existing investment property at the moment when the cost is incurred in, if all criteria for recognition are met; and they exclude the daily maintenance costs of the investment property.

After the initial recognition, investment properties are measured at the fair value reflected by market conditions on the presentation date. All gains and losses arising from changes in the fair values of the investment properties are included in the statement of comprehensive income in the section “result for the period” in the period when they arise.

Investment properties are derecognized, either at the moment they are disposed, or when they are retired from use on a permanent basis, and no future economic benefit is expected. The difference between the net value of disposal and the carrying value of the asset is recognized in the statement of comprehensive income in the section “result for the period” in the period when it was written-off.

Transfers to or from investment properties are conducted only when there is a change in their use. In the case of a transfer from an investment property to a property, plant and equipment, the cost taken into account for its subsequent posting is the fair value on the date of the change in use. If a property,



plant and equipment become an investment property, it shall be recorded at its fair value; the difference between the fair value and the carrying value shall be recorded as revaluation surplus applying the International Accounting Standard (IAS) 16.

## 2.21 Intangible Assets

Intangible assets acquired separately are measured initially at their cost. The cost of the intangible assets acquired in business combinations is their fair value at the acquisition date. After their initial recognition, the intangible assets are accounted for at cost less any accumulated amortization and any accumulated loss for impairment. Intangible assets generated internally are capitalized provided that they meet the criteria for their recognition as asset and the generation of the asset must be classified as: research phase and development phase; if it is not possible to distinguish the research phase from the development phase, the disbursements must be reflected in the Comprehensive income statement in the period in which they incurred.

The useful lives of intangible assets are determined as finite or undefined. Intangible assets with finite useful lives are amortized throughout their economic useful life on a linear basis and are evaluated to determine whether they had value impairment in carrying amount, provided that there are indications that the intangible asset could have suffered such impairment. The amortization period and the amortization method for an intangible asset with a finite useful life are revised at least at every period's closing. Any changes in the expected useful life or the expected consumption pattern of the future economic beneficiaries of the asset are recorded when changing the amortization period or method, as the case may be, and are treated as changes in the accounting estimates. The amortization expense of intangible assets with finite useful lives is recognized in the statement of comprehensive income in the section "result for the period" in the category of expenses that shall result being coherent with the intangible asset's function.

Intangibles assets with undefined useful lives are not amortized, but they are subject to annual tests to determine whether they suffer a value impairment, either individually or at the CGU level. The evaluation of the undefined useful life is revised on an annual basis to determine whether such undefined life continues to be valid. If that is not the case, the change of useful life from undefined to finite is made prospectively.

An intangible asset is written-off upon disposal, or whenever future economic benefits are not expected from their use or disposal. The gains or losses arising when an intangible asset is written-off are measured as the difference between the value obtained in the disposal and the carrying value of the asset, and it is recognized in the statement of comprehensive income in the "result for the period" section.

### Research and development costs

Research costs are recorded as expenses as incurred. Development outlays in an individual project are recognized as intangible assets whenever EPM Group can demonstrate:

- The technical feasibility of finalizing the intangible asset so that it is available for use or sale;
- Their intention of finalizing the asset and its capacity to use or sell the asset;
- How the asset will generate future economic benefits, considering, among others, the existence of a market for the production that generates an intangible asset for the asset itself, or the profit of the asset for the entity.
- The availability of technical and financial resources to finalize the asset and to use and sell it.
- The capacity of reliably measuring the disbursement during the development.

In the statement of financial position, the development disbursements asset is recognized from the moment the element meets the aforementioned conditions for its recognition, and it is recorded at cost less accrued amortization and the value impairment accrued losses.

When the development of an intangible asset related to an Energy Generation project begins, costs are accumulated as constructions in progress.

Amortization of the asset starts when the development has been completed and the asset is available to be used. It is amortized throughout the period of the expected future economic benefit. During the development period, the asset is subject to annual tests to determine whether or not there is impairment of its value.

Research costs and development costs that do not qualify to capitalization are recorded as expenses in results for the period.

### **Goodwill**

Goodwill represents the difference between the cost of a business combination and the fair value at the moment of acquisition of the acquired assets, the liabilities assumed, and the contingent liabilities of the acquired party.

Goodwill is not amortized, it is measured at cost less any value impairment accrued loss and is subject to annual value impairment tests or more frequently when there are impairment indicators. Value impairment losses are recognized in the statement of comprehensive income in the “result for the period” section.

For the CGUs, which have been assigned goodwill, on an annual basis the Company verifies the value impairment, which implies the calculation of the value at use of the CGUs to which it is assigned. The value at use requires determining the future cash flows that must arise from the CGUs and an appropriate discount rate to calculate the current value. When the actual future cash flows are less than expected, an impairment loss may arise.

### **Other intangible assets**

Other intangible assets such as concession of services, licenses, software, exploitation rights, trademarks and similar rights acquired by the Group are measured at cost less the accumulated amortization and any loss for impairment.

## **2.22 Financial instruments**

Financial assets and liabilities are recognized in the statement of financial position when EPM becomes a party according to the contractual conditions of the instrument.

Financial assets and liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issuance of financial assets and liabilities (other than the financial assets and liabilities designated at fair value with change in operations) are added to or deducted from the fair value of the financial assets or liabilities, whenever appropriate, at the moment of the initial recognition. All transaction costs directly attributable to the acquisition of financial assets or liabilities designated at fair value with change in operations are immediately recognized in the results for the period.

### **Financial Assets**

The Group classifies its financial assets for subsequent measurement at amortized cost or fair value through other comprehensive income or through results) depending upon the business model of EPM Group to manage financial assets and the characteristics of the contractual cash flows of the instrument.

A financial asset is subsequently measured at amortized cost or at fair value with changes in other comprehensive income, using the effective interest rate if the asset is maintained within a business model the objective of which is to keep them to obtain contractual cash flows and the contractual terms thereof grant, in specific dates, cash flows that are only payments of the principal and interest on the pending principal amount. Without detriment to the foregoing, EPM Group can designate a financial asset as measured at fair value with changes in operations irrevocably.

All other financial assets different from those at amortized cost are subsequently measured at fair value with changes recognized in the results for the period. However, for the investments made on capital

instruments that are not maintained for negotiation purposes, EPM Group may elect in the initial recognition and irrevocably to present the gains or losses for the measurement at fair value in other comprehensive income. In the disposal of investments at fair value through the other comprehensive income, the accrued value of the gains or losses is directly transferred to the withheld gains; they are not reclassified to results for the period. The dividends received from these investments are recognized in the statement of comprehensive income, in the “result for the period” section. EPM Group has selected to measure some of its investments in capital instruments at fair value through the other comprehensive income.

The fair value through results category includes the investments that are made to optimize liquidity surpluses, i.e., all those resources that are not immediately devoted to the development of the activities that form the company’s corporate purpose. The investment of the liquidity surpluses is made under the criteria of transparency, security, liquidity and profitability, under the guidelines of an adequate control and in market conditions without speculative purposes (Decree of the General Manager of EPM No. 2015-DECGGL-2059 of February 6, 2015).

Income from dividends is recognized when the Group’s right to receive payment is established.

#### **Impairment of financial assets**

At each reporting date, the Group recognizes a correction in value for expected credit losses on financial assets measured at amortized cost or at fair value through changes in other comprehensive income, including receivables from leases, contract assets or loan commitments and financial guarantee contracts to which the impairment requirements are applied over the life of the asset.

Expected credit losses are estimated considering the probability that an impairment loss may or may not occur and are recognized as a gain or loss in the statement of comprehensive income, the profit or loss section of the period against a lower value of the financial asset. The Group assesses the credit risk of financial assets on a monthly basis at the time of presenting the reports, in order to determine the value correction for expected credit losses over the financial assets.

The Group applies the impairment requirements for loss to financial assets that are measured at fair value with changes in other comprehensive income, which is recognized in the other comprehensive income and does not decrease the carrying amount of the financial asset in the statement of financial situation.

The Group assesses on a collective basis the expected losses for financial assets that are not individually significant. When the collective assessment of expected losses is carried out, the accounts receivable are grouped by similar credit risk characteristics, allowing the identification of the debtor’s ability to pay, in accordance with the contractual terms of the accounts receivable.

The Group determines that a client’s credit risk increases significantly when there is a breach in the financial agreements by the counterpart, or when the internal information or that obtained from external sources indicates that the debt payment is unlikely, without considering the guarantees maintained.

Non-compliance of covenants is measured according to what is indicated in the contracts for the provision of services and the own regulations of the subsidiary in each country.

The Group determines that a financial asset presents credit deterioration when:

- The breach in the clients’ payment is evidenced, in accordance with what is indicated in the contracts for the provision of services and the regulations of the subsidiary in each country.
- It is known or there is evidence that the client enters into business restructuring processes or insolvency or liquidation.
- Social alterations of public order or natural disasters are presented, that according to experience are directly correlated with non-payment of invoices.

Credit risk is affected when there are changes in the financial assets, the Group's policy to reassess the recognition of credit losses is: when there is a breach of financial agreements by of the counterpart; Or information developed internally or obtained from external sources indicates that it is unlikely that the debtor will pay its creditors in its entirety without taking into account the guarantees maintained.

Amortized financial assets may continue to be subject to execution activities under the Group's recovery procedures, taking into account the legal recovery when appropriate. The realized recoveries are recognized in profit or loss for the period.

#### **Classification as debt or equity**

Debt and equity instruments are classified as financial liabilities or equity in conformity with the substance of the contractual agreement and the definitions of financial liability and equity instrument.

#### **Financial liabilities**

At the moment of the initial recognition, EPM Group classifies financial liabilities for a subsequent measurement at amortized cost or at fair value with changes in results.

The financial liabilities at fair value with changes in results include those liabilities held to negotiate, the financial liabilities designated at the moment of their initial recognition like at fair value with changes in results and the derivatives. The gains or losses for liabilities held to negotiate are recognized in the statement of comprehensive income in the "statement of income" section. In the initial recognition, EPM Group designated financial liabilities as at fair value with changes in results.

Liabilities at amortized cost are measured using the effective interest rate. All gains and losses are recognized in the statement of comprehensive income in the "Statement of income" section whenever the liabilities are written-off, as well as through the amortization process under the effective interest rate method, that is included as financial cost in the Statement of comprehensive income in the statement of incomes section.

#### **Financial guarantee contracts**

The financial guarantee contracts issued by EPM Group are those contracts that require the making of a specific payment to reimburse the holder of the loss incurred in when a specified debtor does not meet their payment obligation, according to the conditions of a debt instrument. The financial guarantee contracts are initially recognized as a liability at fair value, adjusted by the transaction costs that are directly attributable to the issuance of the collateral. Subsequently, the liability is measured at: (i) the best estimate of the disbursement required to settle the current obligation as of the presentation date; and (ii) the amount initially recognized less the accrued amortization, whichever is greater.

#### **Write-off of financial assets and liabilities**

A financial asset, or part of it, is derecognized from the statement of financial position whenever it is sold, transferred, expire or EPM Group losses control on the contractual rights or on the cash flows of the instrument.

If the entity does not transfer or substantially retains all the risks and advantages that are inherent to the property and continues to retain the control of the asset transferred, the entity will recognize its share in the asset and the obligation associated for the amounts that it would have to pay. If the group substantially retains all risks and advantages inherent to the ownership of a financial asset transferred, the entity shall continue to recognize the financial asset and also shall recognize a loan guaranteed in a collateral fashion for the revenues received.

In the total derecognition of a financial asset measured at fair value with changes in profit and loss, the difference between the carrying value of the assets and the sum of the consideration received and to be received, is recognized in the statement of comprehensive income, result of period section. In case of financial assets measured at fair value with change in equity, the difference between the carrying value of the asset and the sum of the consideration received and to be received is recognized in the Profit and

Loss for the period, and the profit or loss that would have been recognized in the other comprehensive income will be reclassified to accumulated profit and loss.

A financial liability or part of it is written-off from the statement of financial position when the contractual obligation has been settled or has expired. If the entity does not transfer or substantially retains all risks and advantages inherent to the ownership and continues to retain the control of the asset transferred, the entity shall recognize its participation in the asset and the associated obligation for the amounts that it would have to pay. If the group substantially retains all the risks and advantages inherent to the ownership of a financial asset transferred, the entity shall continue to recognize the financial asset and also recognize a guaranteed loan on a collateral way for the incomes received.

Whenever an existing financial liability is replaced by another coming from the same lender under substantially different conditions, or if the conditions of an existing liability are substantially modified, such exchange or modification is treated as a decrease of the original liability and the recognition of a new liability, and the difference in the respective carrying values is recognized in the statement of comprehensive income in the result section of the period.

#### **Compensation of financial instruments**

Financial assets and financial liabilities are subject to compensation in a way that the net value is informed in the consolidated statement of financial position, only if (i) at the current moment, there is a legally enforceable right of compensating the amounts recognized; and (ii) there is the intention of settling them at their net value, or of realizing the assets and cancelling the liabilities simultaneously.

#### **Derivative financial instruments**

EPM Group used derivative financial instruments, like term contracts (“Forward”), futures, financial barbers (“Swaps”) and options to hedge several financial risks, mainly the interest rate, exchange rate and commodities price risks. Such derivative financial instruments are initially recognized at their fair values on the date when the derivative contract is entered into, and subsequently they are measured again at their fair value. Derivatives are recorded as financial assets in the statement of financial position when their fair value is positive, and as financial liabilities when their fair value is negative.

The fair value of the commodity contracts that meet the definition of a derivative, but that are entered into in conformity with the expected purchase requirements of EPM Group, are recognized in the statement of comprehensive income as cost of sales.

Any gain or loss that arises from the changes in derivatives’ fair value is directly recognized in the statement of comprehensive income in the “statement of income” section, except for those that are under hedge accounting.

The derivatives implicit in main contracts are treated as separate derivatives whenever they meet the definition of a derivative and when their risks and characteristics are not closely related to those main contracts and the contracts are not measured at fair value with change in results.”

#### **Hedge Accounting**

At the beginning of a hedging transaction, EPM Group designates and formally documents the hedging transaction to which they want to apply the hedging accounting and the objective of the risk management and the strategy to carry out the hedging. The documentation includes the identification of the hedging instrument, the item or transaction hedged, the nature of the risk being hedged and how EPM Group shall evaluate the effectiveness of the changes in fair value of the hedging instrument when offsetting the exposure before changes in the fair value of the hedged item or in the cash flows, attributable to the risk hedged. That hedging is expected to be highly efficient in achieving the offsetting of changes in the fair value or in the cash flows, and they are permanently evaluated to determine whether that was actually so throughout the information periods for which they were designated.

For hedging accounting purposes, the hedging is classified and recorded as follows, once the stringent criteria for their recording are complied with:

- Fair value hedging, when they hedge the exposure to fair value changes of assets or liabilities recognized or non-recognized firm commitments.

A change in the fair value of a derivative that is a hedging instrument is recognized in the statement of comprehensive income, in the “statement of income” section as financial cost or revenue. A change in the fair value of the item hedged attributable to the risk hedged is recorded as part of the carrying value of the hedged item, and also is recognized in the statement of comprehensive income in the “statement of income” section as financial cost or revenue. For the fair value hedging that related to items recorded at amortized cost, the adjustments to the carrying value are amortized through the statement of comprehensive income in the “statement of income” section during the remaining term until their expiration. Amortization of the effective interest rate may begin as soon as there is an adjustment to the carrying value of the hedged item, but it must start at the latest when the hedged item is no longer adjusted for their fair value changes attributable to the risk being hedged. Amortization of carrying value adjustments is based upon the effective interest rate recalculated on the amortization’s start date. If the hedged item is written-off, the non-amortized fair value is immediately recognized in the statement of comprehensive income in the “statement of income” section.

When a non-recognized firm commitment is designated as a hedged item, the subsequent accrued change in the fair value of the firm commitment attributable to the hedged risk shall be recognized as an asset or liability with their corresponding gain or loss recognized in the statement of comprehensive income in the “statement of income” section.

- Cash flow hedging, when they cover the hedging to the attributed cash flow variations exposure, either to a particular risk associated to a recognized asset or liability or to a highly probable foreseen transaction, or to the exchange rate risk in a non-recognized firm commitment.

The purpose of cash flows hedging accounting is to recognize in the other comprehensive income the fair value variations of the hedging instrument to apply them to the income statement accounts when, and the rhythm that, the hedged item affects the same. Only the derivative inefficiencies shall be recognized in the income statement as they are produced.

The effective portion of the gain or loss for the measurement of the hedging instrument is immediately recognized in the other comprehensive income, whereas the ineffective portion is immediately recognized in the statement of comprehensive income in the “statement of income” section as financial cost.

The values recognized in the other comprehensive income are classified into the statement of comprehensive income in the “statement of income” section when the hedged transaction affects the result, as well as when the financial revenue or financial expense hedged is recognized, or when the transaction foreseen takes place. When the hedged item constitutes the cost of a non-financial asset or liability, the values recognized in the other comprehensive income are reclassified at the initial carrying value of the no-financial asset or liability. If the foreseen transaction or the firm commitment is no longer expected to happen, the accrued gain or loss previously recognized in the other comprehensive income is reclassified into the statement of comprehensive income in the “statement of income” section.

If the hedging instrument expires or is sold, it is resolved, or is exercised without a replacement or successive renovation of a hedging instrument for another hedging instrument, or if its designation as hedging is revoked, any accrued gain or loss previously recognized in the other comprehensive income remains in the other comprehensive income until the operation foreseen or the firm commitment affects the result.

- Hedging of a net investment abroad, when they hedge the exposure to the variations in the translation of foreign businesses into the presentation currency of EPM Group, associated to the exchange rate risk.

The objective of the foreign-currency net investment hedging is to hedge the exchange rate risks that a Principal or Intermediate Parent Company having businesses abroad may have on the impact of the translation of financial statements from functional currency to presentation currency. The hedging of

net investment in foreign currency is a hedging to the exposure in foreign currency, not a hedging of the fair value due to changes in the investment value.

The gains or losses of the hedging instrument related to the effective portion of the hedging are recognized in other comprehensive income, whereas any other gain or loss related to the ineffective portion is recognized in the statement of comprehensive income in the “statement of income” section. Before the disposal of the business abroad, the accrued value of the gains or losses recorded in the other comprehensive income are reclassified in the statement of comprehensive income in the “statement of income” section.

### **Equity instruments**

An equity instrument consists of any contract showing a residual interest on an entity’s assets after deducting all its liabilities. Equity instruments issued by EPM are recognized at the revenues received, net of direct issuance costs.

The repurchase of the Company’s own equity instruments is recognized and directly deducted in equity. No gain or loss is recognized in operations, coming from the purchase, sale, issuance, or cancellation of the Company’s own equity instruments.

### **2.23 Inventories**

The goods acquired with the intention of selling them during the ordinary course of business or of consuming them in the service rendering process are classified as inventories.

Inventories are valued at cost or net realizable value, whichever is lower. The net realizable value is the sales price estimated in the normal course of business, less the estimated finalization costs and the estimated costs necessary to make the sale.

Inventories include merchandise in stock that do not require transformation, such as energy, gas and water meters, communication equipment, telephone sets, and procurement goods. They include materials such as minor spare parts and accessories for the rendering of services and the goods in transit and held by third parties.

Inventories are valued by using the weighted average method and their cost includes the costs directly related to the acquisition and those incurred in to give them their current conditions and location.

### **2.24 Impairment value of non-financial assets**

As of every presentation date, EPM Group evaluates whether they have any indication that a tangible or intangible asset may be impaired. EPM Group estimates the recoverable value of the asset or CGU at the moment it detects an indication of impairment, or annually (as November 30 and it is reviewed if there are significant or significant events presented in the month of December that merit analysis and be included in the calculation of the deterioration.) for intangible assets with undefined useful life and those that are still being used.

The recoverable value of an asset is the fair value less costs of sale, either of an asset or a CGU, and its value in use, whichever is greater, and it is determined for an individual asset, except that the asset does not generate cash flows that are substantially independent from the other assets or group of assets; in this case, the asset should be grouped into a CGU. When a reasonable and consistent base of distribution is identified, common/corporate assets are also assigned to the individual CGUs, or distributed to the smallest group of CGUs for which it can be identified a reasonable and consistent distribution base. When the carrying value of an asset or of a CGU exceeds its recoverable value, the asset is considered impaired and the value is reduced to its recoverable amount.

When calculating the value of use, either for an asset or a CGU, the estimated cash flows are discounted at their present value through a discount rate before taxes that reflects the market considerations of the temporary value of money and the specific risks of the asset. An adequate valuation model is used for determining the reasonable value less the costs of sale.

Losses for impairment of continued operations are recognized in the comprehensive income statement in the section income statement in those expense categories that correspond to the function of the impaired asset. Losses for impairment attributable to a CGU are assigned proportionately based in the carrying amount of each asset to the non-current assets of the CGU after extinguishing goodwill. The CGU is the smallest identifiable group of assets, which generates cash inflows in favor of the Group, which are largely independent of cash flows derived from other assets or groups of assets. The Group defined the CGU considering: 1) The existence of income and costs for each group of assets, 2) The existence of an active market for the Generation of cash flows and 3) the way in which Manage and monitor operations.

The impairment value for goodwill is determined by evaluating the recoverable value of each CGU to which the goodwill relates. The value impairment losses related to goodwill may not be reverted in future periods.

For assets in general, excluding the goodwill, on each presentation date an evaluation is conducted about whether there is any indication that the impairment losses previously recognized no longer exist or have decreased. If such indication exists, EPM Group makes an estimate of the asset's or the cash-generating unit's recoverable value. An impairment loss previously recognized only can be reverted if there was a change in the assumptions used for determining the recoverable value of an asset since the last time when it was recognized the last impairment loss. The reversal is limited in such a way that the carrying value of the asset neither exceeds its recoverable amount, nor exceeds the carrying value that would have been determined, net of depreciation, if no impairment loss had been recognized for the asset in the previous years. Such reversal is recognized in the statement of comprehensive income in the "statement of income" section.

## 2.25 Provisions

Provisions are recorded when EPM Group has a present, legal or implicit obligation, as a result of a past event; it is probable that EPM Group have to give off resources that incorporate economic benefit to cancel out the obligation, and a reliable estimate can be made of the value of the obligation. In those cases, in which EPM Group expects that the provision be reimbursed in whole or in part, the reimbursement is recognized as a separate asset, but only in the cases when such reimbursement is practically certain and the asset amount can be reliably measured. In the Group, each provision is used only to meet the disbursements for which it was originally recognized.

Provisions are measured with the best estimate from Management of the disbursements necessary to cancel the present obligation, at the end of the period being reported, taking into account the risks and the corresponding uncertainties. When a provision is measured using the estimated cash flow to cancel the current obligation, its carrying value corresponds to the present value of such cash flow, using for the discount a pre-tax interest rate that reflects current market conditions over the value of money and the specific risks for that obligation.

The expense corresponding to any provision is presented in the statement of comprehensive income in the "result for the period" section net of all reimbursement. The increase in provision due to the time elapsed is recognized as financial expense.

### Dismantlement reserve

To the extent that there is a legal or implicit obligation of dismantling or restoring, EPM Group recognizes as part of the cost of a fixed asset in particular, the estimation of the future costs EPM Group expects to incur in to perform the dismantlement or restoring and its balancing entry is recognized as a provision for dismantling and restoring costs. The dismantling cost is depreciated over the estimated useful life of the fixed asset.

Dismantlement or restoring costs, in the Group's subsidiaries that applied, are recognized at the present value of the expected costs of cancelling out the obligation using estimated cash flows. Cash flows are discounted at a particular rate before taxes, which should be determined by taking as a reference, for the subsidiaries in Colombia, the yield on the TES Bonds (Public Debt Securities issued by the General Treasury of the Nation) is used; for Chile's subsidiaries, a risk-free discount rate is used and corresponds



to the interest rate of the instruments issued by the Chilean Central Bank at 30 years; for the subsidiaries in Panama and Salvador for the market yields of the bonds issued by the National Government.

Future estimated dismantlement or restoration costs are annually revised. Changes in the future estimated costs, in the dates estimated for the disbursements, or in the discount rate applied are added or deducted from the asset cost, without exceeding the carrying value of the asset; any surpluses are immediately recognized in results for the period. The change in the provision value associated to the time elapsed is recognized as financial expense in the statement of comprehensive income in the “result for the period” section.

### **Onerous Contracts**

EPM Group recognizes as provisions the current obligations that are derived from an onerous contract. As provisions and its counterpart is in the statement of comprehensive income in the result section of the period. An onerous contract is the one in which the unavoidable costs of complying with the obligations it implies, exceed the economic benefits that are expected to receive therefrom.

### **Contingent liabilities**

The possible obligations that arise from past events and the existence of which shall only be confirmed by the occurrence or non-occurrence of one or more uncertain future events that are not entirely under EPM’s control or the current obligations that arise from past events, but that it is not probable, but possible, that on outlay of resources including economic benefits be required to liquidate the obligation or the amount of the obligation cannot be measured with enough reliability, are not recognized in the statement of financial position, they are rather disclosed as contingent liabilities. Contingent liabilities generated in a business combination are recognized at fair value on the acquisition date.

### **Contingent Assets**

Assets of a possible nature, that arise from past successes, the existence of which has to be confirmed only by the occurrence, or the non-occurrence, of one or more uncertain events in the future, that are not entirely under EPM Group’s control, are not recognized in the statement of financial position; rather, they are disclosed as contingent assets when their occurrence is probable. Whenever the contingent fact is true, the asset and the revenue associated are recognized in operations. Contingent liabilities acquired in a business combination are initially measured at their fair values, on the acquisition date. At the end of subsequent periods being reported, those contingent liabilities are measured at the amount it would have been recognized and the amount initially recognized less the accrued amortization recognized, whichever is greater.

## **2.26 Employee benefits**

### **2.26.1 Post-employment benefits**

#### **Defined Contribution Plans**

The contributions to the defined contribution plans are recognized as expenses in the statement of comprehensive income in the “result for the period” section at the moment when the employee has rendered the service that grants them the right to make the contributions.

#### **Defined Benefit Plans**

Post-employment benefit plans are those in which EPM Group has the legal or implicit obligation to respond for the payments of the benefits that were left to their charge.

For the defined benefit plans, the difference between the fair value of the plan assets and the present value of the plan obligation is recognized as asset or liability in the statement of financial position. The cost of giving benefits under the defined benefit plans is determined separately for each plan, through the actuarial valuation method of the projected credit unit, using actuarial assumptions on the date of the period being reported. Plan assets are measured at fair value, which is based upon the market price information and, in the case of quoted securities, it constitutes the published purchase price.

The actuarial gains or losses, the yield of plan assets and the changes in the asset ceiling effect, excluding the securities included in the net interest on the net defined benefits liabilities (assets), are recognized in the other comprehensive income, in the case of post-employment benefits; and if it is long-term benefits they are recognized in the statement of comprehensive income in the “statement of income” section in the period where they arise. The actuarial gains or losses include the effects of changes in the actuarial assumptions as well as adjustments due to experience.

The net interest on the liabilities (assets) for net defined benefits includes the interest revenue for the plan assets, interest cost for the obligation for defined benefits and interests for the asset ceiling effect.

The current service cost, the past service cost, any settlement or reduction of the plan are immediately recognized in the statement of comprehensive income in the “statement of income” section in the period when they arise.

### 2.26.2 Short term Benefits

EPM classifies as short-term employee benefits those obligations with the employees that it expects to liquidate during the twelve (12) month period following the closing of the accounting period where the obligation has been generated or the service has been rendered. Some of these benefits are generated from the current labor legislation, from collective bargaining agreements, or from non-formalized practices that generate implicit obligations.

EPM recognizes the short-term benefits at the moment the employee has rendered their services, as the following:

A liability for an amount that shall be repaid to the employee, deducting the amounts already paid before, and its balancing entry as expense for the period, unless another chapter obliges or allows including the payments in the cost of an asset or inventory, for instance, if the payment corresponds to employees the services of whom are directly related to the construction of a work, they shall be capitalized to that asset.

The amounts values already paid before correspond, for instance, to advanced payments of salaries, advanced payments of per diems, among others. If they exceed the corresponding liability, the Company will have to recognize the difference as an asset in the prepaid expenses account, to the extent that the advanced payment gives place to a reduction in the payments to be made in the future or to a cash reimbursement.

According to the foregoing, the accounting recognition of short-term benefits is made upon occurrence of the transactions, regardless of when they are paid to the employee or to the third parties to which the Company has entrusted the provision of certain services.

### 2.26.3 Long term Benefits

EPM classifies as long-term employee benefits those obligations that it expects to settle after the twelve (12) months following the closing of the accounting exercise or the period where employees provide the related services, i.e., from the month thirteen forward; they are different from the short-term benefits, post-employment benefits, and contract termination benefits.

EPM measures long-term benefits in the same fashion as post-employment defined benefit plans. Although their measurement is not subject to the same uncertainty level, the same following methodology will be applied for its measurement:

- The Company should measure the surplus or deficit in a long-term employee benefit plan using the technique applied for post-employment benefits both for estimating the obligation as well as for the plan assets.
- The Company should determine the value of net long-term employee benefits (assets or liabilities) finding the deficit or surplus of the obligation and comparing the asset ceiling.

The benefits that employees receive year after year throughout their labor life should not be considered “long term” if at the accounting exercise closing each year, the Company has fully delivered them.

#### 2.26.4 Benefits for termination

The company recognizes as benefits for termination, the considerations granted to the employees, payable as result of the decision of the company to terminate the employment agreement to an employee before the normal retirement date or the decision of an employee to accept the voluntary resignation in exchange for those benefits.

#### 2.27 Reserves

Liabilities for insurance contracts represent for the Group the best estimate of future payments for the risks assumed in the insurance obligations; which are measured and recognized through technical reserves:

##### 2.27.1 Reserve of unearned premium

It is constituted for the fulfillment of future obligations derived from the commitments assumed in the current policies. They correspond to the portion of the premium that, at the date of calculation, has not been earned by the insurer. Its purpose is to adjust the result so that the profit is allocated to the period in which the premium was earned, regardless of when it was issued. This reserve is calculated by policy, as the result of multiplying the premium issued, minus the acquisition expenses incurred at the time of issuing the policy for the fraction of risk not incurred at the date of calculation. Likewise, the part of the reserve corresponding to the reinsurer is calculated, taking into account the premium that has been assigned.

##### 2.27.2 Reserve of losses or claims reported

This reserve is a provision of money that the Group must have to face the costs derived from the claims already notified and pending of payment. Its purpose is to establish adequate reserves to guarantee the payment of incidents that have not been paid during the accounting period. This reserve is constituted per claim, on the date on which the insurer is aware of the occurrence of the loss and corresponds to the best technical estimate of the cost thereof. The amount of the constituted reserve is readjusted to the extent that more information is available and in case there are reports of internal or external liquidators. The reserve includes the liquidation expenses incurred to meet the claim, including the costs of attorneys' fees for those claims that are in the process of being prosecuted.

##### 2.27.3 Reserve of incurred losses not reported (IBNR)

It represents an estimate of the amount of resources that the Group must allocate to meet future claim payments that have already occurred as of the date of calculation of this reserve, but have not been notified or for which there is not enough information. For the calculation of this reserve, methodologies that estimate the reserve required based on the development of historical incidents will be used. They are based on the assumption that the relative change in the evolution of claims paid net of recoveries and salvages in a given period of occurrence, estimated from one period to the next, is similar to the evolution of this type of claims in periods of occurrence prior to the same "age" of the claim. When using this method, the data on the payments of a period are evaluated at the end of it in triangular form. The methodologies consider all the payments associated to the claims and, therefore, the payments associated to all types of contracts. For the reservation of branches that do not have sufficient information, different estimation techniques may be used, based on historical information or market referencing.

#### 2.28 Test of adequacy of liabilities

The technical provisions recorded by the Group are regularly subject to proof of reasonableness in order to determine its sufficiency. If, as a result of the test, it becomes clear that they are insufficient, they are adjusted with a charge to the result of the exercise.

#### 2.29 Service Concession Agreements

EPM Group recognizes the service concession agreements pursuant to the interpretation requirements of the IFRIC 12 Service Concession Agreements.

This interpretation is applicable to those concessions where:

- The grantor controls or regulates which services the operator with the infrastructure should provide, to whom and at what price; and
- The grantor controls, through the ownership, the right of use, or otherwise, any significant residual participation in the infrastructure at the end of the term of the agreement.

EPM Group does not recognize these infrastructures as property, plant and equipment; it recognizes the consideration received in the contracts that meet the above conditions at its fair value, as an intangible asset to the extent that EPM Group receives a right to make charges to users of the service, provided that these rights are conditioned to the service use level, or as a financial asset, to the extent that there is an unconditional contractual right to receive cash or other financial asset, either directly from the assignor or from a third party. In those cases where EPM Group receives payment for the construction services, partly through a financial asset and partly through an intangible asset, each component of the consideration is recorded separately.

Financial assets of service concession agreements are recognized in the consolidated statement of financial position as operating financial assets and subsequently are measured at amortized cost, using the effective interest rate. The evaluation of impairment of these financial assets is made pursuant to the value impairment policy of the financial assets.

Intangible assets of service concession agreements are recognized in the consolidated statement of financial position as intangible assets denominated “intangible assets for service concession agreements” and are amortized on a linear basis within the term of duration thereof.

Revenues from ordinary activities and costs related to the operating services are recognized according to the accounting policy of ordinary revenues and the services related to construction or improvement services according to the accounting policy of construction contracts. Contractual obligations assumed by EPM Group for maintenance of the infrastructure during its operation, or for its return to the assignor at the end of the concession agreement in the conditions specified therein, to the extent that it does not assume a revenue-generating activity, it is recognized following the provisions accounting policy.

### 2.30 Fair Value

The fair value is the price that would be received when selling an asset or that would be paid when transferring a liability in an orderly transaction between market participants on the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or liability, EPM takes into account the characteristics of the asset or liability if the market participants take into account these characteristics when valuing the asset or liability on the measurement date. Fair value for measurement and/or disclosure purposes in these financial statements is determined on that basis, except for the transactions of stock-based payments, lease transactions, and the measurements that have certain similarities with the fair value but that are not fair value, such as the realizable value or the value at use. The fair value of all financial assets and liabilities is determined on the date of presentation of the financial statements, for recognition or disclosure in the notes to the financial statements.

The fair value is determined:

- Based upon prices quoted in active or passive markets identical to those the Company can access on the measurement date (level 1).
- Level 2 inputs are inputs other than quoted prices included in Tier 1, which are observable for the asset or liability, directly or indirectly.
- Based upon internal valuation techniques of cash flow discounts or other valuation models, using variables estimated by EPM Group non-observable for the asset or liability, in the absence of variables observed in the market (level 3).

In the note 43 Measurement of fair value on a recurring and non-recurring basis provides an analysis of the fair values of financial instruments and non-financial assets and liabilities and more detail of their measurement.

### 2.31 Operating Segments

An operating segment is a EPM Group component that develops business activities from which it can obtain revenues for ordinary activities and incur costs and expenses, on which there is financial information and the operating results of which are revised on a regular basis by the highest authority in EPM Group's operating decision-making, which is the EPM's Management Committee, to decide on the assignment of resources to the segments and evaluate their performance.

Financial information of operating segments is prepared under the same accounting policies used in the elaboration of EPM Group's consolidated financial statements.

### 2.32 Dividends in cash distributed to stockholders of the Group

The group recognizes a liability to make the distributions to the stockholders of the Group in cash when the distribution is authorized and it is no longer at the Group's discretion. The corresponding amount is recognized directly in the net equity.

### 2.33 Changes in estimates accounting policies and errors

#### 2.33.1 Changes in accounting estimates

The Group recorded no significant changes in its financial statements as a result of a revision to its estimated carrying amount.

#### 2.33.2 Changes in accounting policies

As of December 31, 2017, the accounting practices applied in the consolidated financial statements of the Group are consistent with 2016.

#### **New standards implemented and change in voluntary accounting policies:**

In the current year, the Group has implemented the amendments to the IFRS issued by the International Accounting Standards Board (IASB), which are mandatory for the accounting period beginning on January 1, 2017. On the other side, the General Accounting Office of the Nation, authorized the Group to adopt in advance the amendments to IAS 7 and IAS 12, since the effective date of these amendments established by this body is January 1, 2019.

**IAS 7 Cash flows:** the amendment to IAS 7, issued in January 2016, defines the liabilities derived from financing activities as liabilities "for which the cash flows were or will be classified in the statement of cash flows as cash flows from financing activities ". It also emphasizes that new disclosure requirements are also related to changes in financial assets if they meet the same definition.

Requests new information to disclosure about changes in liabilities derived from financing activities, such as: changes in financing cash flows, changes derived from obtaining or losing control of subsidiaries or other businesses, the effect of Changes in foreign exchange rates, changes in fair value and other changes. It also establishes that changes in liabilities derived from financing activities must be disclosed separately from changes in other assets and liabilities, and includes a conciliation between the opening and closing balances in the statement of financial position, for liabilities derived from financing activities. Early adoption is allowed.

The Group evaluated and concluded that these amendments have no material impact on the financial statements and are described in greater detail in note 29 Changes in liabilities for financing activities, where comparative information is presented with the previous period.

**IAS 12 Income tax:** the amendment to IAS 12, issued in January 2016, does not change the underlying principles for the recognition of deferred tax assets, it presents the following clarifications:

- Unrealized losses on debt instruments measured at fair value in financial instruments, but at cost for tax purposes may give rise to deductible temporary differences.
- When an entity assesses whether taxable profits may be available against to which deductible temporary difference may be used, it will consider whether tax legislation restricts the sources of taxable profits against to which it can make deductions at the time of the reversal of that deductible temporary difference. If the tax legislation does not impose these restrictions, an entity will evaluate a deductible temporary difference in combination with all others. However, if the tax legislation restricts the use of losses to be deducted against income of a specific type, a deductible temporary difference will be evaluated in combination only with those of the appropriate type.
- The Entity must confirm if it has sufficient fiscal profits in future periods, comparing deductible temporary differences with future tax profits that exclude tax deductions precedent of the reversal of such deductible temporary differences. This comparison shows the extent to which the future fiscal profit will be sufficient for the entity to deduct the amounts proceeding from the reversal of the deductible temporary differences.
- Possible future taxable profits could include the recovery of some assets of the entity for an amount greater than their book value if there is sufficient evidence that the entity is likely to comply with. That is, in the case of an asset when is measured at fair value, the entity must verify if it is certain that the recovery of the asset is likely to exceed the book value, such as maintaining a fixed-rate debt instrument and collect the contractual cash flows.

**IFRS 9 Financial Instruments:** In 2016, the Group applied IFRS 9 Financial Instruments (Revised July 2014) and the corresponding amendments to other IFRSs before their effective dates. IFRS 9 introduces new requirements for: classification and measurement of financial assets, impairment of financial assets and hedge accounting. The detail of these new requirements, as well as their impact on the financial statements are described below:

- Classification and measurement of financial assets: the standard introduces a measurement category for debt instruments called "Fair value with changes in other comprehensive income". The Group had no impact by this new approach.
- Impairment of financial assets: Measurement of the correction of value for expected credit losses over financial assets that are measured at amortized cost or at fair value with changes in other comprehensive income, accounts receivable for leases, contract assets or a loan commitment and financial guarantee contract to which the impairment requirements are applied during the life of the asset.
- The changes in the accounting policies resulting from the adoption of IFRS 9 have not been restated, in which case the accumulated difference in the provision for losses recognized in terms of IFRS 9 is charged against the accumulated results as of January 1, 2016
- The provision for additional credit losses of \$ 145,731 as of January 1, 2016 has been recognized against retained earnings at the respective dates, net of their related deferred tax impact of \$ 50,795 resulting in a net decrease in retained earnings of \$ 94,936 as of January 1.
- Hedge accounting: the standard introduces a substantially reformed approach to hedge accounting that aligns it more closely with risk management. The Group was not impacted by this new approach.

**IFRS 12 - Information to disclosure over participations in Other Entities:** the amendment to IFRS 12, which forms part of the annual improvements to the standards IFRS 2014-2016 issued in December 2016, clarifies the scope of the standard, adding the indication that the requirements of this IFRS apply to the interests of subsidiaries, joint arrangements, associates and unconsolidated structured entities that are classified as held for sale or discontinued operations in accordance with IFRS 5 Assets non-current held for sale and discontinued operations, but the exception to disclose information about them is retained in accordance with paragraph B17 of the standard.

These amendments have no material impact on the financial statements.

### 2.33.3 Application of new and revised standards

The new standards and modifications to the IFRS, as well as the interpretations (IFRIC) that have been published in the period, but that have not been yet implemented by the company and those that will be adopted as of the date of the mandatory application, are detailed below:

Note: From the following table, clarity is given, that there are not yet adopted in Colombia, the 2015-2017 Cycle, IFRS 17, IFRS 16, IFRIC 23, IFRIC 22 and the amendments to IAS 40, IFRS 9, IFRS 2 and IAS 28

| Standard                                                                                                                                                                     | Date of mandatory application | Type of change |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------|
| IFRS 17 Insurance Contracts                                                                                                                                                  | January 1, 2021               | New            |
| IFRIC 23 Uncertainty regarding the treatment of income tax                                                                                                                   | January 1, 2019               | New            |
| IFRIC 22 Foreign Currency Operations and Advance Consideration                                                                                                               | January 1, 2018               | New            |
| IFRS 15 - Revenue from contracts with customers                                                                                                                              | January 1, 2018               | New            |
| IFRS 16 - Leases                                                                                                                                                             | January 1, 2019               | New            |
| IFRS 4 - Insurance Contracts<br>(Application of IFRS 9 Financial instruments with IFRS 4 Insurance contracts)                                                                | January 1, 2018               | Modification   |
| IFRS 9 - Financial Instruments                                                                                                                                               | January 1, 2018               | Modification   |
| IAS 28 -Investments in Associates and Join Ventures<br>(annual improvements to IFRS standards Cycle 2014-2016 - Measurement at fair value of an associate or joint venture.) | January 1, 2018               | Modification   |
| IAS 40 - Investment Property<br>(transfers in investment properties)                                                                                                         | January 1, 2018               | Modification   |
| IAS 28 -Investments in Associates and Join Ventures<br>(long-term interests in associates and joint ventures)                                                                | January 1, 2019               | Modification   |
| IFRS 9 -Financial Instruments - (characteristics of early cancellation with negative compensation)                                                                           | January 1, 2019               | Modification   |

| Standard                                                                                                                                                                                            | Date of mandatory application | Type of change |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------|
| <b>IFRS 3 Business Combinations</b><br>(annual improvements to the IFRS standards cycle 2015-2017 - Interest previously maintained in a joint venture when the control of the business is obtained) | January 1, 2019               | Modification   |
| <b>IFRS 11 Joint agreements</b><br>(annual improvements to IFRS standards cycle 2015-2017 - Interest previously maintained in a joint venture when joint control is obtained)                       | January 1, 2019               | Modification   |
| <b>IAS 12 Income Tax</b><br>(annual improvements to the IFRS standards cycle 2015-2017 - Consequences of income tax, of payments in financial instruments classified as equity)                     | January 1, 2019               | Modification   |
| <b>IAS 23 Costs for loans</b><br>(annual improvements to the IFRS standards cycle 2015-2017 - Costs for loans subject to capitalization)                                                            | January 1, 2019               | Modification   |

Each standard is detailed as follows:

**IFRS 17 Insurance Contract:** issued in May 2017, replacing IFRS 4, which was addressed as a provisional standard, which was being prepared in phases.

IFRS 17 resolves the comparison disadvantages generated by the application of IFRS 4, given that it was allowed to apply local rules and historical values in insurance contracts, now with this new standard, all insurance contracts will be recorded in a consistent manner and at current values, generating more useful information for interest groups, which will allow a better understanding of the financial position and profitability of insurance companies.

The Group is evaluating the impacts that the application of this new norm could generate.

The amendments will be of mandatory application for annual periods beginning from January 1, 2021. Early application is allowed if IFRS 9 and IFRS 15 are applied.

**IFRIC 23 the uncertainty regarding the treatment of income tax:** issued in June 2017, this Interpretation tries to solve the problem of how to reflect in the financial statements, the uncertainty that arises from the fact that an accounting treatment applied in the tax returns is or not accepted by the tax authority. Due to that uncertainty, the accounting treatment is considered an "uncertain accounting treatment" to which it is evaluated whether it is or not probable that the tax authority accepts it. If accepted, it must be determined the accounting tax position consistent with the tax treatment used or planned to be used in the income tax returns of the entity and if not, it must be reflected the effect of the uncertainty in the determination of the related accounting tax position. In the latter case, the effect of the uncertainty must be estimated, using either the most probable quantity or the expected value method, depending on which method best predicts the solution of the uncertainty.



The Interpretation allows to apply any of the following approaches for the transition:

- **Complete retrospective approach:** this approach can be used only if it is possible without the use of retrospective. The application of the new Interpretation will be accounted for in accordance with IAS 8, which means that the comparative information will have to be re-issued; or
- **Retrospective modified approach:** the re-issuance of comparative information is not required or allowed according to this approach. The cumulative effect of applying initially the Interpretation will be recognized in the opening equity at the date of the initial application, being the beginning of the annual reporting period in which the entity first applies the Interpretation.

The Group is evaluating the impacts that the application of this interpretation could generate.

The interpretation will be of mandatory application for annual periods beginning from January 1, 2019. Early application is allowed.

**IFRIC 22 Transactions in foreign currency and early consideration:** issued in December 2016, this Interpretation deals with how to determine the date of the transaction, to define the exchange rate that will be used in the initial recognition of assets, expenses or income (or a part of it), on the derecognition of a non-monetary asset or non-monetary liability resulting from the payment or receipt of an advance in foreign currency. In this regard, the IFRS Interpretations Committee reached the following conclusion: the date of the transaction, for purposes of determining the exchange rate, is the date of the initial recognition of the non-monetary advance payment asset or the deferred income liability. If there are several payments or receipts in advance, a transaction date is established for each payment or receipt. Does not apply when an entity measures the related asset, expense or income on the initial recognition at its fair value or at the fair value of the consideration paid or received on a date other than the date of the initial recognition of the non-monetary asset or the non-monetary liability derived from the early consideration (for example, the measurement of goodwill in accordance with IFRS 3 Business Combinations). Neither does it apply over income tax and insurance contracts.

These amendments have no impact on the financial statements, since they coincide with the Group's current practice.

The interpretation will be of mandatory application for annual periods beginning from January 1, 2018. Early application is allowed.

**IFRS 15 Revenues from ordinary activities proceeding of contracts with customers:** issued in May 2014, is a new standard applicable to all income contracts of ordinary activities proceeding of contracts with customers, except leases, financial instruments and insurance contracts that are regulated by its respective standard. It is a joint venture with the Financial Accounting Standards Board - FASB to eliminate differences in revenue recognition between IFRS and US GAAP.

The clarifications made in April 2016 to IFRS 15 include the following aspects:

a. Identification of the principal or agent acting

Identification of the principal or agent acting: When a third party is involved in providing goods or services to a customer, the Group will determine whether the nature of its commitment is a performance obligation consisting in providing the goods or services specified by itself (that is, it acts as a principal) or in organizing for the third party the supply of those goods or services (i.e. acts as an agent).

b. Variable Consideration

It is any amount that is variable according to the contract. The amount of the consideration may vary due to discounts, refunds, compensations, reimbursements, credits, price reductions, incentives, performance premiums, penalties or other similar elements. The agreed consideration can also vary if the right of an entity to receive it depends on whether or not a future event occurs. For example, a consideration amount would be variable if a product with a right of return was sold or a fixed amount is promised as a performance premium at the time of achieving a specified milestone.

c. Methods of application

The standard allows the use of two methods for the initial application as follows: Complete retrospective method and Modified method. In the Group, this rule is applied following the modified method.

**Modified method.** With the modified approach, the accumulated effect of the initial application will be recognized as an adjustment to the opening balance of the accumulated profits (or another equity component, as applicable) of the annual presentation period that includes the initial date of application. According to this transition method, an entity will apply this Standard retroactively only to contracts that are not terminated on the date of the initial application (for example, January 1, 2018 for an entity with December 31 as end of year).

For the presentation methods that include the date of initial application, an entity will provide all the following additional information to be disclosed:

- (a) The amount by which each item of the financial statements is affected in the current presentation period by the application of this Standard as compared to IAS 11 and IAS 18 and the interpretations relation that were in effect before the change; and
- (b) An explanation of the reasons for the significant changes identified.

This new standard intends to improve the inconsistencies and weaknesses of IAS 18 and provide a model that will facilitate comparability of companies from different industries and regions. It provides a new model for the recognition of revenues and more detailed requirements for contracts with multiple elements. In addition, it requires more detailed disclosures.

The basic principle of IFRS 15 is that an entity recognizes its revenues from ordinary activities in a way that they represent the transfer of goods or services committed with the customers in exchange for an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

An entity recognizes the revenues from ordinary activities in accordance with this basic principle through the application of the following phases:

Phase 1: Identifying the contract (or contracts) with the customer

Phase 2: Identifying the performance obligations in the contract

Phase 3: Determining the transaction price

Phase 4: Assigning the transaction price between the contract performance obligations

Phase 5: Recognizing the revenues from ordinary activities when (or to the extent that) the entity satisfies a performance obligation

Under IFRS 15, an entity recognizes the revenues when an obligation is fulfilled, for example, when the “control” of the goods or services underlying the performance of the obligation in particular are transferred to the customer. More specific guidelines have been added to the standard to manage specific scenarios. Additionally, greater disclosures are required.

It would replace standards IAS 18 Revenues, IAS 11 Construction Contracts, IFRIC 13, Customer Loyalty Programs, IFRIC 15 Agreements for the Construction of Real Estate, IFRIC 18 Transfer of assets from customers and SIC 31 Barter transactions that include advertising services.

The Group continues evaluating the new standard placing special emphasis on the identification of the performance obligations included in the contracts with customers and the evaluation of the methods to estimate the amount and the time of the variable consideration. Although the impact remains subject to review, the Group does not consider that the adoption of IFRS 15 has a material impact on the financial statements.

The amendments will be mandatory for annual periods beginning on or after January 1, 2018. Early application is permitted.

**IFRS 16 Leases:** issued in January 2016, this new standard introduces an integral model for the identification of leases and accounting treatments for landlords and tenants. It will replace the current standards for the accounting treatment of the leases included in IAS 17 Leases and related interpretations.

The distinction between leases and service contracts is based on the control of the customer over the identified asset. For the lessee, the distinction between operating leases (off-balance sheet) and finance leases (on the balance sheet) is removed and replaced with a model in which an asset (right of use) and its corresponding liability must be recognized for all Leases (i.e. all on the balance sheet), except for short-term leases and leases of low-value assets.

Assets (right of use) are initially measured at cost and subsequently measured at cost (with certain exceptions) less accumulated depreciation and impairment losses, adjusted for any reassessment of the lease liability. Lease liability is initially measured at the present value of future lease payments. Subsequently, the lease liability is adjusted to interest and rent payments, as well as to the impact of lease modifications, among others. In addition, the classification of cash flows will also be affected since operating lease payments under IAS 17 are presented as operating cash flows; While in model IFRS 16, lease payments will be divided into amortization to capital and a portion of interest that will be presented as cash flow from financing and operation, respectively.

In contrast to tenant accounting, IFRS 16 includes as accounting requirements for the lessor the same as that provided by IAS 17, i.e., it continues to require a lessor to classify a lease as an operating lease or a finance lease.

This new standard requires more detail in the disclosures.

The Group is evaluating the impacts that could be generated by the application of this new standard, since it is planned that in 2018 technical guidelines and definitions will be elaborated and the impacts for the implementation in 2019 will be identified.

**IFRS 4 Insurance contracts:** issued in March 2004, is a standard in the process of phased training, for those who issue insurance and reinsurance contracts. The ascent to Phase II has been initiated, which has involved some exemptions from applying other standards, for example, an entity will apply those modifications, which allow insurers who meet specific criteria to use a temporary exemption from IFRS 9 for periods Per annum beginning on or after 1 January 2018, insurers are also permitted to reclassify some or all of their financial assets under specified circumstances so that they are measured at fair value through profit or loss but affecting other comprehensive income.

This implies that changes in the application of IFRS 9 "Financial instruments" with IFRS 4 "Insurance contracts" (Amendments to IFRS 4) offer two options for entities that issue insurance contracts within the scope of the IFRS 4:

\* An option that allows the entities to reclassify, from the profit or loss to other comprehensive income, part of the income or expenses derived from designated financial assets; This is the so-called overlapping approach;

\*An optional temporary exemption from the application of IFRS 9 for entities whose predominant activity is the issuance of contracts within the scope of IFRS 4; This is the so-called deferral approach.

The application of both approaches is optional and an entity is allowed to stop applying them before the new standard of insurance contracts is applied.

An entity would apply the overlapping approach retrospectively to qualifying financial assets when it first applies IFRS 9. The application of the overlap approach requires the disclosure of sufficient information to enable financial statement users to understand how the reclassified amount is calculated in Period Effect of such reclassification on the financial statements.

An entity would apply the deferral approach for annual periods beginning on or after January 1, 2018. The application of the deferral approach must be disclosed in conjunction with information that allows the users of financial statements to understand how the insurer qualified for The temporary exemption

and Compare the insurers applying the temporary exemption with the entities applying IFRS 9. The deferral can only be used for the three years following January 1, 2018.

The Group is evaluating the impacts that could be generated by the application of this new standard.

**IFRS 9 Financial Instruments:** it applies to the companies that at December 31, 2017 did not apply the measurement of value of expected credit losses.

IFRS 9 and its modification issued in July 2014 establishes that the financial assets are classified in their initial recognition in three categories, in terms of the business model and the characteristics of the cash flows, in which it may be the case that they are held to collect flows and will be held until maturity (they are valued at amortized cost), those that are held up to the expiration but may be sporadically sold (at fair value with changes in other comprehensive income) and those that are for sale in a systematic manner (at fair value with changes in profit and loss). It was defined that the accounts receivable from debtors that have a significant financing component and the CDs not available for sale would be under amortized cost, while the debt securities for Government Bonds, the CDs available for sale that are acquired to manage liquidity, would be at fair value with changes in profit and loss.

In the equity instruments, IFRS 9 applies always that there is no significant influence (IAS 28 Investments in associates), joint control (IFRS 11 Joint arrangements) or control (IFRS 10 Consolidation), and thus generally it consists of share holdings in other entities entitled to vote lower than 20%. If they are held for negotiation purposes they are classified at fair value with changes in profit and loss, but if they are held for some strategy they may be irrevocably designated at fair value with changes in other comprehensive income and cannot be modified.

In respect to impairment of financial assets, a change is made from the model of incurred loss to the model of expected credit losses. According to the impairment approach of IFRS 9, it is no longer necessary for an event related to the credit occurs before the credit losses are recognized. Instead, an entity will always account for the expected credit losses, as well as the changes in those expected credit losses. The amount of the expected credit losses is updated on each presentation date to reflect the changes in the credit risk since the initial recognition and, consequently, more timely information is provided on the expected credit losses.

Because the expected credit losses model was developed for financial entities, the standard allows applying more simplified models to non-financial entities, such as the matrix of provisions. The Group implemented a statistical model “uncollectibility matrix” as practical resource, and allows the application of the simplified model (all the expected life of the financial asset).

In respect to the accounting of hedges, IFRS 9 establishes three types of hedges: for cash flow, of fair value and of investments in businesses abroad. The relevant change consists in that the limits established for the evaluation of the retrospective effectiveness of the hedge are eliminated and are aligned more with the risk management activities, that is, the evaluation of the efficacy is aligned with the risk management through qualitative principles instead of quantitative rules; only an evaluation of the hedge will be necessary in its initiation and then later, but of a prospective nature, its retrospective evaluation ceases to be a requirement. Likewise, it does not require the compliance with some quantitative limits fixed, however, the inefficiency of the hedge must continue to be measured and recognized at the closing of each period. Previously the hedges had to be highly efficient, both prospectively and retroactively.

IFRS 9 in respect to hedges establishes that:

- The rating of the hedge should be based on qualitative factors and on the prospective evaluation of effectiveness. If the effectiveness was not as expected, the hedge relationship must be rebalanced, without need to discontinue the hedge accounting, except that it is not anticipated to be effective in the future.
- The voluntary termination of the hedge relationship is not permitted.

- It is necessary to make sure that the hedge relationship is adequately designated and documented, specifying the risk management objectives and strategies and how the effectiveness will be evaluated, the causes of ineffectiveness and how the hedge ration will be calculated.
- The accounting of the temporary value of the options in the hedge relationships is modified, whether of cash flows or of fair value which fair value variation may be deferred under certain rules as hedge cost. With IAS 39 this component is carried to profit and loss as inefficacy.

In the Group as of December 31, 2017 only the cash flow hedge applies, and did not present any significant impact in the consolidated financial statements.

Modifications will be mandatory for annual periods beginning on or after January 1, 2018. Early application is allowed.

**IAS 28 - Investments in associates and joint ventures:** the amendment to IAS 28, which is part of the annual improvements to IFRS Cycle 2014-2016 issued in December 2016, clarifies that when an investment in an associate or joint venture Directly or indirectly maintained by an entity that is a venture capital organization or a collective investment trust, investment trust or other similar entity, including investment insurance funds, the entity may choose to measure such investments at fair value With changes in results in accordance with IFRS 9. An entity shall make this separate choice for each associate or joint venture at the initial recognition of the associate or joint venture. It also clarifies that if an entity that is not itself an investment entity has a stake in an associate or joint venture that is an investment entity, the entity applying equity method may retain the fair value measurement applied by That associate or joint venture that is an investment entity to the interests of the associate or joint venture that is an investment entity in subsidiaries. This choice is made separately for each associated investment entity or joint venture, on the date after the date on which: a) the investment in the associate or joint venture is initially recognized; B) the associated investment or joint venture becomes an investment entity; And (c) the associated investment entity or joint venture becomes a Parent.

These changes do not have any material impact on the consolidated financial statements.

The amendments will be mandatory for annual periods beginning on or after January 1, 2018. Early application is permitted.

**Long-term participations in associates and joint ventures:** Additionally, in the modification to IAS 28, issued in October 2017, it is established that IFRS 9 must be applied to other financial instruments in the associates or joint ventures to which the equity method is not applied. These include long-term interest that, in essence, forms part of the net investment of the entity in an associate or joint venture. The amendments will have mandatory application for the annual periods that start as of January 1, 2019. Their advance application is permitted.

**IAS 40 Investment Property:** The amendment made in December 2016, has an effect on the transfer of investment property (reclassifications) motivated by "change in use", extending the latter term: a change in use occurs when the property Meets, or fails to meet, the definition of investment property and there is evidence of change in use. In isolation, a change in management's intentions for the use of a property does not provide evidence of a change in use. This is followed by the examples provided by the standard in paragraphs 57 and 58 (not substantially modified). Paragraphs 84C to 84E and 85G were added to define the transitional provisions when transferring investment property.

The Group is evaluating the impacts that could be generated by the application of this new standard.

The amendments shall be mandatory for annual periods beginning on or after 1 January 2018.

At the current stage of the analysis, still under development, it is not possible to provide a reasonable estimate of the effects that these standards will have.

**IFRS 9 Financial Instruments:** the amendments to IFRS 9, related to the prepayment characteristics with negative compensation, allow the companies to measure financial assets, paid in advance with negative compensation at amortized cost or fair value, through other comprehensive income if a specific condition is met; instead of making it at fair value with benefit or loss.

The Group is evaluating the impacts that could be generated by the application of this amendment.

The amendments will have mandatory application for the annual periods that start as of January 1, 2019.

**IFRS 3 - Business combinations:** the amendment to IFRS 3, which forms part of the annual improvements to IFRS standards cycle 2015-2017 issued in December 2017, establishes that when the control of a business is obtained which was previously part of a joint operation and was entitled to the assets and obligations for the liabilities related to that joint operation before the acquisition date, the transaction is a business combination carried out by phases and the interest previously held in the joint operation must be measured again.

These amendments have no material impact on the consolidated financial statements.

The amendments will have mandatory application for the annual periods that start as of January 1, 2019. Their advance application is permitted.

**IFRS 11 Joint arrangements:** the amendment to IFRS 11, that forms part of the of the annual improvements to IFRS standards cycle 2015-2017 issued in December 2017, establishes that when the control of a business is obtained which was previously part of a joint operation but the joint control was not held, the interest previously held in the joint operation should not be measured again.

These amendments have no material impact on the consolidated financial statements.

The amendments will have mandatory application for the annual periods that start as of January 1, 2019. Their advance application is permitted.

**IAS 12 Income Taxes:** la amendment to IAS 12, which forms part of the annual improvements to IFRS cycle 2015-2017 issued in December 2017, clarifies that all consequences of the income tax of dividends (benefit distribution) must be recognized in profit and loss, other comprehensive income or the equity, in terms of the initial recognition of the transaction. Specifically, it establishes that an entity will recognize the consequences of the income tax of dividends as defined in IFRS 9 when it recognizes a liability to pay a dividend. The consequences of the income tax of dividends are more directly connected to transactions or past events that generated distributable profits, than with the distribution made to owners. Thus, an entity will recognize the consequences of the dividends on the income tax on the profits and loss for the period, other comprehensive income or equity according to where the entity recognized initially those transactions or past events.

The Group is evaluating the impacts that could be generated by the application of this amendment.

The amendments will have mandatory application for the annual periods that start as of January 1, 2019. Their advance application is permitted.

**IAS 23 Borrowing costs:** the amendment to IAS 23, which forms part of the annual improvements to IFRS standards cycle 2015-2017 issued in December 2017, establishes that to the extent that the funds of an entity result from generic loans and it uses them to obtain a proper asset, it will determine the amount of the costs susceptible of capitalization by applying a capitalization rate to the disbursements made in that asset. The capitalization rate will be the weighted average of the borrowing costs applicable to all loans received by the entity outstanding during the period. However, an entity will exclude from this calculation the borrowing costs applicable to loans specifically agreed to finance a proper asset until all the activities necessary to prepare that proper asset for its anticipated use or sale are substantially completed. The amount of the borrowing costs that an entity capitalizes during the period shall not exceed the total of the borrowing costs incurred during that same period.

The Group is evaluating the impacts that could be generated by the application of this amendment.

The amendments will have mandatory application for the annual periods that start as of January 1, 2019. Their advance application is permitted.

At December 31, 2017, no adjustments were made to the consolidated financial statements by effect of errors of previous periods.

#### 2.33.4 Errors in previous periods

At December 31, 2017, no adjustments were made to the consolidated financial statements by effect of errors of previous periods.

#### 2.33.5 Changes in presentation

As of December 31, 2017, there were no significant changes in presentation to the consolidated financial statements.

### Note 3. Significant accounting judgments, estimates, and causes of uncertainty in the preparation of financial statements

The following are the significant judgments and assumptions, including those that involve accounting estimates that EPM Group's management used in the application of the accounting policies under IFRS, and that have significant effect on the values recognized in the consolidated financial statements.

Estimates are based upon historic experience and as a function of the best information available on the facts analyzed as of December 31, 2017 and 2016. These estimates are used for determining the value of the assets and liabilities in the separate financial statements, when it is not possible to obtain such value from other sources. EPM Group evaluates its estimates on a regular basis. Actual results may differ from those estimates.

The significant estimates and judgments made by EPM Group are described below:

**(1) Evaluation of the existence of impairment indicators for the assets, goodwill and valuation of assets for determining the existence of value impairment losses.**

The condition of the assets is revised on each report presentation date. Recognized in order to determine whether there are indications that any of them has suffered an impairment loss, impairment indicators are revised. If there is impairment loss, the recoverable amount of the asset is affected; if the estimated recoverable amount is lower, it is reduced up to its fair value and an impairment loss is immediately recognized in operations.

The evaluation of the existence of value impairment indicators is based on external and internal factors, and in turn on quantitative and qualitative factors. Evaluations are based on financial results, the legal, social and environmental settings, and the market conditions; significant changes in the scope or fashion in which it is used or expected to use the asset or cash-generating unit (UGE, for its Spanish initials) and evidence about obsolescence or physical deterioration of and asset or CGU (cash generating unit), among others.

Determining whether goodwill has suffered impairment implies the calculation of the value at use of the cash generating units to which it has been assigned. The calculation of the value at use requires that the entity determines the future cash flows that should arise from the cash-generating units and a discount rate appropriate to calculate the current value. When the actual future cash flows are lower than expected, an impairment loss may arise.

**(2) Hypothesis used in the actuarial estimate of the post-employment obligations with employees.**

The assumptions and hypothesis used in the actuarial studies include: demographic assumptions and financial assumptions; the former refer to the characteristics of the current and past employments, and relate to the mortality rate, employee turnover rates; the latter relate to the discount rate, the increases in future salaries, and the changes in future benefits.

**(3) Useful life and residual values of property, plant and equipment, and intangibles**

In the assumptions and hypothesis used for determining the useful lives, technical aspects such as the following are considered: periodical maintenances and inspections made to the assets; failure statistics;

environmental conditions and operating environment; protection systems; replacement processes; obsolescence factors, recommendations of manufacturers, climate and geographical conditions; and experience of the technicians that know the assets. Aspects such as market values, reference magazines, and historic sales data are considered for determining the residual value.

**(4) Assumptions used for calculating the fair value of financial instruments including the credit risk.**

EPM Group discloses the fair value corresponding to each class of financial instrument in such a way that allows comparing it with the carrying values.

Macro-economic projections calculated within each Group company are used.

Investment portfolio is valued at market price. In its absence, a similar one is looked for in the market and if not, assumptions are used.

Macro-economic rates are projected using the cash-flow methodology.

Derivatives are estimated at fair value.

Accounts receivable are estimated at the market rate in force and effect for similar credits. Accounts receivable from employees are valued in a similar way as massive debtors, except for mortgage (housing) credits.

The methodology used for equity investments is the cash flow; those quoted in the stock exchange such as Interconexión Eléctrica S.A. -ISA- and ISAGEN S.A. E.S.P. are estimated at market prices; all others, are valued at historic cost.

**(5) Likelihood of occurrence and value of contingent or uncertain-value liabilities.**

The assumptions used for uncertain or contingent liabilities include the classification of the legal process by the “expert judgment” of the areas professionals, the type of contingent liability, the possible legislative changes, and the existence of high-courts’ jurisprudence that applies to the concrete case - the existence of similar cases in the company, - the study and analysis of the substance of the issue, - the guarantees existing at the moment when the facts occur.

The Company shall disclose and not recognized in the financial statements those obligations classified as “possible”.

**(6) Future disbursements for asset dismantlement and retirement obligations.**

In the assumptions and hypothesis used for determining future disbursements for asset dismantlement and retirement obligations, aspects such as the following were considered: estimate of future outlays in which the Group companies must incur for the execution of those activities associated to asset dismantlement on which legal or implicit obligations have been identified; the initial date of dismantlement or restoration; the estimated date of finalization; and the discount rates.

**(7) Determination of the existence of financial or operating leases based on the transfer of risks and benefits of the leased assets.**

The significant assumptions that are considered in the Group to determine the existence of a lease include the assessment of the conditions if the right to control the use of the asset is transmitted for a period of time in exchange for a consideration, that is, it is evaluated The existence of an identified asset; The right to obtain substantially all economic benefits from the use of the asset over the period of use; The right to direct how and for what purpose the asset is used throughout the period of use; Right to operate the asset over the period’s use without any changes in the operating instructions.

**(8) Recoverability of deferred tax assets**

Deferred tax asset in the Group has been generated by the temporary differences that generate future fiscal consequences in the financial position of Group Companies; these differences are essentially represented in fiscal assets that exceed the assets under IFRS; and in fiscal liabilities, lower than the



liabilities under IFRS, such as it is the case of the pension liability components, the amortized cost of bonds, financial leasing, and other sundry provisions and contingencies provision.

The Group's deferred tax asset is recovered in the net income taxed on the current income tax generated in each Group company.

– **Determination of control, significant influence or joint control on an investment.**

Investment in Ecosistema de Morelos S.A. de C.V. and Aquasol Pachuca S.A. de C.V., without control.

As at December 31, 2017 and 2016, the Group has 80% of the equity instruments of Ecosistema de Morelos S.A. de C.V., therefore, it holds over half of the voting rights; however, due to contractual investment agreements between the Group and the minority investors, in December 2016 the Group lost the power to direct their relevant activities, it cannot select and remove the majority of the members of the Board of Directors. Consequently, Ecosistema de Morelos S.A. de C.V. is not consolidated in the financial statements of the Group, this investment is incorporated in the financial statements of the Group through the subsidiary Tecnología Intercontinental S.A. de C.V. TICSAs as investment in financial instruments measured at fair value with changes in profit and loss.

As at December 31, 2016 the Group had 57.6% of the equity instruments of Aquasol Pachuca S.A. de C.V., therefore, it owned more than half of the voting rights; however, due to contractual investment agreements between the Group and the minority investors, at that date the Group lost the power to direct its relevant activities, selecting and removing most of the members of the Board of Directors. Consequently, Aquasol Pachuca S.A. de C.V. was not consolidated in the financial statements of the Group, this investment was incorporated into the financial statements of the Group through the subsidiary TICSAs as investments in financial instruments measured at fair value with changes in profit and loss. On December 15, 2017, the affiliate TICSAs entered into a share purchase and sale agreement, whereby it sells and transfers all the shares that it had in the company Aquasol Pachuca S.A. de C.V. to the company Ecosistema de Sonora S.A.P.I. de C.V. See note 38 Effect by participation in equity investments.

– **Determination of the expected credit loss**

For the calculation of the expected credit loss, each obligation is assigned an individual probability of non-payment that is calculated from a probability model involving sociodemographic, product and behavior variables.

The model uses a window of twelve months, which is why it is estimated that an obligation has to be provisioned at a certain percentage in the same period. The model will be applied based on the scorecard developed taking into account the information of each Group Company. The models are defined according to the information available and the characteristics of the population groups for each one. Although the methodology applies to all accounts with balance, some exclusions must be taken into account, such as: Accounts written-off; Self-consumption; Contributions; Public Lighting and in general charges from third parties. For its calculation, it is previously defined the moment from which it is considered that an obligation was breached and will not be recovered.

With this information the calculation of the expected request is made as follows:

$$EL = PD \times ED \times LGD, \quad \text{where:}$$

**Probability of Default (PD):** this corresponds to the probability that, within a period of twelve months, the debtors of a certain segment and portfolio rating incur in default.

**Exposure at default (ED):** corresponds to the balance of capital, balance of interests, and other current charges of the obligations.

**Loss given default (LGD):** defined as the economic deterioration that the entity would incur in the event that any of the non-compliance situations materialize.

<sup>(9)</sup> **Estimate of revenue**

The Group recognizes revenue from the sale of goods in the period of transfer of risks and benefits and those arising from the provision of services when they are delivered to the customer, regardless of the date on which the corresponding invoice is drawn up, to carry out This estimate takes information from contracts or agreements with customers and thus establishes the value to be recognized in revenue.

For other concepts than the provision of public residential services, the Group estimates and recognizes the value of revenues from sales of goods or services rendered based on the terms or conditions of interest rate, interim period, of each contract Which originates the sale.

In the month after recording the estimated revenue, its value is adjusted by the difference between the value of the actual revenue already known against the estimated revenue.

#### – Operating segments

The determination of the operating segments is based on the information that is supplied regularly to the highest authority on the Group's decision-making and it is identified as this information is segmented. Once these segments are identified, the capacity to generate income and incur costs and expenses of the groupings identified. Also, verification is made of whether the highest decision-making authority reviews the returns and assigns the resources based on this segmentation; finally, an examination is made on whether there is disaggregated financial information that supports this segmentation. In addition to the above items, the Group's approach and management is analyzed in order to take into consideration today, possible segments that arise in the future, according to their strategy.

## Note 4. Property, plant and equipment, net

The following is the detail of the carrying amount of property, plant and equipment:

| Concept                                 | 2017              | 2016              |
|-----------------------------------------|-------------------|-------------------|
| Cost                                    | 38.189.365        | 34.151.205        |
| Accumulated depreciation and impairment | (6.709.269)       | (5.885.095)       |
| <b>Total</b>                            | <b>31.480.096</b> | <b>28.266.110</b> |

- Amounts expressed in millions of colombian pesos -

The following is the detail of the carrying amount of the properties, plant and equipment that are temporarily out of service.

| Properties, plant and equipment that are temporarily out of service              | 2017          | 2016          |
|----------------------------------------------------------------------------------|---------------|---------------|
| Plants, ducts and tunnels                                                        | 57.876        | 25.529        |
| Lands and buildings                                                              | 9.076         | 7.098         |
| Networks, lines and cables                                                       | 976           | -             |
| Other property, plant and equipment                                              | 220           | 2.659         |
| Machinery and equipment                                                          | 83            | 41            |
| <b>Total properties, plant and equipment that are temporarily out of service</b> | <b>68.231</b> | <b>35.327</b> |

Amounts expressed in millions of colombian pesos -

The most significant variation in plants, ducts and tunnels is due to the loss that occurred at la Central Playas, which is still under repair and is expected to enter in service in the short term.

The remaining information refers to the components of the power generation plants: Rio Abajo, Dolores, Calera, Limón and Piedras.

The movement of the cost, depreciation and impairment of property, plant and equipment is detailed below:

| 2017                                                                | Networks, lines and cables | Plants, ducts y túnnels | Constructions in progress <sup>(1)</sup> | Lands and buildings | Machinery and equipment | Communication and computer equipment | Furniture and fixtures and office equipment | Other property, plant and equipment <sup>(2)</sup> | Total              |
|---------------------------------------------------------------------|----------------------------|-------------------------|------------------------------------------|---------------------|-------------------------|--------------------------------------|---------------------------------------------|----------------------------------------------------|--------------------|
| Balance as of January 1                                             | 8.689.990                  | 9.523.236               | 8.619.544                                | 5.940.864           | 658.242                 | 316.017                              | 95.773                                      | 307.539                                            | 34.151.205         |
| Business Combination <sup>(3)</sup>                                 | 17.882                     | 4.543                   | 9.702                                    | 26.697              | 1.057                   | 370                                  | 86                                          | 890                                                | 61.226             |
| Additions <sup>(4)</sup>                                            | 74.848                     | 38.773                  | 3.968.418                                | 47.777              | 19.313                  | 47.211                               | 9.880                                       | 95.374                                             | 4.301.594          |
| Advanced payments (amortized) made to third parties                 | 105                        | -                       | (25.102)                                 | -                   | -                       | 86                                   | -                                           | 1.196                                              | (23.715)           |
| Transfers (-/+)                                                     | 761.138                    | 608.283                 | (1.709.156)                              | 42.547              | 69.883                  | 19.699                               | 26.688                                      | (20.547)                                           | (201.464)          |
| Disposals (-)                                                       | (23.359)                   | (31.473)                | (488)                                    | (3.795)             | (17.977)                | (9.210)                              | (2.998)                                     | (5.278)                                            | (94.578)           |
| Effect on foreign currency translation                              | 15.393                     | (11.777)                | 13.855                                   | (1.248)             | 381                     | 685                                  | 1.252                                       | 1.353                                              | 19.895             |
| Other changes                                                       | 214.274                    | (220.999)               | (52.516)                                 | 31.042              | (2.369)                 | 10.462                               | (65)                                        | (4.627)                                            | (24.798)           |
| <b>Balance as of December 31</b>                                    | <b>9.750.271</b>           | <b>9.910.586</b>        | <b>10.824.257</b>                        | <b>6.083.884</b>    | <b>728.530</b>          | <b>385.321</b>                       | <b>130.617</b>                              | <b>375.899</b>                                     | <b>38.189.365</b>  |
| <b>Accumulated depreciation and impairment</b>                      |                            |                         |                                          |                     |                         |                                      |                                             |                                                    |                    |
| Accumulated depreciation and impairment as of January 1             | (2.454.713)                | (2.243.100)             | (836)                                    | (623.425)           | (218.014)               | (183.308)                            | (36.678)                                    | (125.021)                                          | (5.885.095)        |
| Depretiation of the period                                          | (335.227)                  | (268.090)               | -                                        | (67.407)            | (63.191)                | (46.578)                             | (8.431)                                     | (23.535)                                           | (812.460)          |
| Impairment of the period                                            | -                          | (52.472)                | 19                                       | (4.122)             | (38)                    | (2)                                  | -                                           | (4)                                                | (56.619)           |
| Disposals (-)                                                       | 14.905                     | 11.688                  | -                                        | 3.614               | 10.440                  | 8.529                                | 2.843                                       | 4.463                                              | 56.482             |
| Effect on foreign currency translation                              | (9.620)                    | 745                     | (15)                                     | (38.992)            | 20.653                  | (13.017)                             | (12.683)                                    | 29.189                                             | (23.739)           |
| Business Combination (3)                                            | (7.078)                    | (1.683)                 | -                                        | (8.562)             | (628)                   | (292)                                | (54)                                        | (547)                                              | (18.845)           |
| Other changes                                                       | 7.223                      | 6.388                   | (242)                                    | 7.634               | 809                     | 9.166                                | 239                                         | (210)                                              | 31.007             |
| <b>Accumulated depreciation and impairment as of December 31</b>    | <b>(2.784.510)</b>         | <b>(2.546.524)</b>      | <b>(1.074)</b>                           | <b>(731.260)</b>    | <b>(249.969)</b>        | <b>(225.501)</b>                     | <b>(54.765)</b>                             | <b>(115.666)</b>                                   | <b>(6.709.269)</b> |
| <b>Total properties, plant and equipment as of December 31, net</b> | <b>6.965.761</b>           | <b>7.364.061</b>        | <b>10.823.183</b>                        | <b>5.352.624</b>    | <b>478.561</b>          | <b>159.819</b>                       | <b>75.852</b>                               | <b>260.233</b>                                     | <b>31.480.096</b>  |
| <b>Advanced payments made to third parties</b>                      |                            |                         |                                          |                     |                         |                                      |                                             |                                                    |                    |
| Balance as of January 1                                             | 413                        | -                       | 58.407                                   | -                   | -                       | -                                    | -                                           | -                                                  | 58.820             |
| Movement (+)                                                        | 97                         | -                       | 122.711                                  | -                   | -                       | 86                                   | -                                           | 1.205                                              | 124.099            |
| Movement (-)                                                        | -                          | -                       | (141.794)                                | -                   | -                       | -                                    | -                                           | (10)                                               | (141.803)          |
| Exchange Rate Differences, adjustment by translation                | 8                          | -                       | (6.019)                                  | -                   | -                       | -                                    | -                                           | -                                                  | (6.010)            |
| <b>Balance as of December 31</b>                                    | <b>518</b>                 | <b>-</b>                | <b>33.305</b>                            | <b>-</b>            | <b>-</b>                | <b>86</b>                            | <b>-</b>                                    | <b>1.196</b>                                       | <b>35.105</b>      |

- Amounts expressed in millions of Colombian pesos -

| 2016                                                             | Networks, lines and cables | Plants, ducts y tunnels | Constructions in progress <sup>(1)</sup> | Lands and buildings | Machinery and equipment | Communication and computer equipment | Furniture and fixtures and office equipment | Other property, plant and equipment <sup>(2)</sup> | Total              |
|------------------------------------------------------------------|----------------------------|-------------------------|------------------------------------------|---------------------|-------------------------|--------------------------------------|---------------------------------------------|----------------------------------------------------|--------------------|
| Cost initial balance                                             | 8.018.610                  | 9.347.301               | 6.499.020                                | 5.798.401           | 618.075                 | 303.027                              | 87.218                                      | 406.986                                            | 31.078.638         |
| Additions <sup>(4)</sup>                                         | 205.722                    | 68.443                  | 3.786.269                                | 70.353              | 58.985                  | 35.599                               | 4.019                                       | (9.611)                                            | 4.219.779          |
| Advanced payments (amortized) made to third parties              | (2.083)                    | -                       | (69.082)                                 | -                   | -                       | -                                    | -                                           | -                                                  | (71.165)           |
| Transfers (-/+)                                                  | 627.605                    | 311.218                 | (1.553.391)                              | 62.574              | 19.774                  | 9.803                                | 6.311                                       | (21.784)                                           | (537.890)          |
| Disposals (-) <sup>(5)</sup>                                     | (29.991)                   | (173.255)               | (735)                                    | (2.209)             | (19.041)                | (28.484)                             | (1.234)                                     | (6.431)                                            | (261.380)          |
| Effect on foreign currency translation                           | (115.038)                  | (44.199)                | (45.340)                                 | (18.714)            | (19.843)                | (3.696)                              | (468)                                       | (3.069)                                            | (250.367)          |
| Other changes                                                    | (14.835)                   | 13.728                  | 2.803                                    | 30.459              | 292                     | (232)                                | (73)                                        | (58.552)                                           | (26.410)           |
| <b>Cost final balance</b>                                        | <b>8.689.990</b>           | <b>9.523.236</b>        | <b>8.619.544</b>                         | <b>5.940.864</b>    | <b>658.242</b>          | <b>316.017</b>                       | <b>95.773</b>                               | <b>307.539</b>                                     | <b>34.151.205</b>  |
| <b>Accumulated depreciation and impairment</b>                   |                            |                         |                                          |                     |                         |                                      |                                             |                                                    |                    |
| Accumulated depreciation and impairment as of January 1          | (1.972.628)                | (2.051.588)             | -                                        | (779.403)           | (182.412)               | (167.876)                            | (31.825)                                    | (109.330)                                          | (5.295.062)        |
| Depretiation of the period <sup>(6)</sup>                        | (306.777)                  | (277.000)               | -                                        | (65.327)            | (48.077)                | (44.264)                             | (6.621)                                     | (18.720)                                           | (766.786)          |
| Impairment of the period -See note 7                             | (420.898)                  | (297.822)               | (838)                                    | (85.331)            | (13.252)                | (314)                                | (22)                                        | (1.336)                                            | (819.813)          |
| Reversal of loss of impairment (-)                               | 192.420                    | 183.011                 | -                                        | 304.978             | 2.957                   | 19                                   | 185                                         | 1.979                                              | 685.549            |
| Disposals (-) <sup>(5)</sup>                                     | 18.278                     | 157.829                 | -                                        | 174                 | 15.814                  | 26.874                               | 1.378                                       | 5.195                                              | 225.542            |
| Transfers (-/+)                                                  | (73)                       | 213                     | -                                        | (80)                | 174                     | (42)                                 | 45                                          | 82                                                 | 319                |
| Effect on foreign currency translation                           | 32.144                     | 38.632                  | 2                                        | (3.478)             | 6.796                   | 248                                  | 372                                         | (3.067)                                            | 71.649             |
| Other changes                                                    | 2.821                      | 3.625                   | -                                        | 5.042               | (14)                    | 2.047                                | (190)                                       | 176                                                | 13.507             |
| <b>Accumulated depreciation and impairment as of December 31</b> | <b>(2.454.713)</b>         | <b>(2.243.100)</b>      | <b>(836)</b>                             | <b>(623.425)</b>    | <b>(218.014)</b>        | <b>(183.308)</b>                     | <b>(36.678)</b>                             | <b>(125.021)</b>                                   | <b>(5.885.095)</b> |
| <b>Total final balance</b>                                       | <b>6.235.277</b>           | <b>7.280.136</b>        | <b>8.618.708</b>                         | <b>5.317.439</b>    | <b>440.228</b>          | <b>132.709</b>                       | <b>59.095</b>                               | <b>182.518</b>                                     | <b>28.266.110</b>  |
| <b>Advanced payments made to third parties</b>                   |                            |                         |                                          |                     |                         |                                      |                                             |                                                    |                    |
| Balance as of January 1                                          | 1.682                      | -                       | 127.110                                  | -                   | -                       | -                                    | -                                           | 1.737                                              | 130.529            |
| Movement (+)                                                     | 6.817                      | -                       | 22.723                                   | -                   | -                       | -                                    | -                                           | -                                                  | 29.540             |
| Movement (-)                                                     | (8.900)                    | -                       | (91.805)                                 | -                   | -                       | -                                    | -                                           | (1.737)                                            | (102.442)          |
| Effect on foreign currency translation                           | 814                        | -                       | 379                                      | -                   | -                       | -                                    | -                                           | -                                                  | 1.193              |
| <b>Balance as of December 31</b>                                 | <b>413</b>                 | <b>-</b>                | <b>58.407</b>                            | <b>-</b>            | <b>-</b>                | <b>-</b>                             | <b>-</b>                                    | <b>-</b>                                           | <b>58.820</b>      |

- Amounts expressed in millions of Colombian pesos -

Property, plant and equipment show a variation with respect to 2016, mainly due to the construction of infrastructure in the different businesses of the company, of which, the most relevant corresponds to the construction of the Ituango Hydroelectric project, for \$ 1,955,599.

- (1) Includes capitalization of loans for \$ 275,161 (2016: \$ 271,224), the effective weighted average rates used to determine the amount of borrowing costs were as follows: in pesos 7.96% and in dollars 4.01% (2016: 8.45% and 2.86%).
- (2) Includes equipment and vehicles of the automotive fleet, medical and scientific equipment, property, plant and equipment in assembly, property, plant and equipment in transit, replacement assets, transportation equipment, traction and elevation, dining equipment, kitchen, pantry and hotel.
- (3) Includes the assets acquired through a business combination with EP Rio (see note 9).
- (4) Includes purchases, capitalizable disbursements that meet the recognition criteria, goods received from third parties and costs for dismantling and removal of elements of property, plant and equipment. At the end of 2017 and 2016 no subsidies were received from the Government.

The main projects in progress are the following:

| Project                                                                                            | 2017              | 2016             |
|----------------------------------------------------------------------------------------------------|-------------------|------------------|
| Ituango <sup>(1)</sup>                                                                             | 7.616.015         | 5.660.416        |
| Bello waste water treatment project                                                                | 1.179.116         | 1.038.356        |
| Other projects                                                                                     | 784.259           | 542.722          |
| Construction, expansion and maintenance of substations, networks, lines and cables DECA affiliates | 415.474           | 248.977          |
| Substations, networks, lines and loss control ESSA                                                 | 199.387           | 252.141          |
| Expansion of the NTS, RTS, networks, lines and loss control CENS                                   | 150.955           | 109.625          |
| Desalination and drinking water and waste water networks ADASA                                     | 147.216           | 106.473          |
| Substations, lines and network growth ENSA                                                         | 129.962           | 138.847          |
| Substations, networks, lines and loss control CHEC                                                 | 70.551            | 48.408           |
| Primary Conexión San Nicolás D.                                                                    | 33.045            | 13.812           |
| Water treatment plants Ticsa Group                                                                 | 30.853            | -                |
| Water and Sewage networks Regional Water EPM                                                       | 20.516            | -                |
| Distribution networks and GIS Implementation, Delsur                                               | 20.271            | 30.217           |
| Expansion and replacement of plans, networks, lines and cables EDEQ                                | 12.207            | 11.813           |
| A. MALAMBO Projects - Water supply and sewage networks                                             | 8.159             | 891              |
| Los Cururos Aeolic Park Project                                                                    | 2.533             | -                |
| EMVARIAS Project - Altair Landfill Basin (phase 3)                                                 | 2.521             | -                |
| AOR Projects - Replacement of sewage networks El Retiro                                            | 106               | 140              |
| AOR Projects - Retiro supply and tank                                                              | 36                | 10               |
| Nueva Esperanza Substation                                                                         | -                 | 390.603          |
| Distrito Frio                                                                                      | -                 | 25.257           |
| <b>Total</b>                                                                                       | <b>10.823.183</b> | <b>8.618.708</b> |

- Amount in millions of Colombian pesos -

<sup>(1)</sup> The Ituango hydroelectric project shows a physical progress of 80.5% (2016: 65%).

For 2018, it is estimated to continue carrying out the civil works of the dam and the station, supply and assembly of electromechanical equipment and social and environmental actions to obtain a physical progress of 93.2% at December 2018 and comply with the milestone of “Initiation of commercial operation of unit 4” at the end of 2018”.

As of December 31, 2017, there are restrictions on the realization of EPM properties, plant and equipment, associated with some automobile fleet equipment for a carrying amount of \$ 6. These restrictions are for theft, personal injury and embargoes and have been affected as a guarantee for the fulfillment of obligations. For the rest of the affiliates of the Group no other restrictions were identified restrictions on the realization of the property, plant and equipment or affectations as a guarantee for the fulfillment of obligations.

The most significant commitments of acquisition of properties, plant and equipment of the Group at the cut-off date increase to \$ 1,190,791 (2016: \$ 1,033,192). The group obtained income from third parties' compensation for loss of property, plant and equipment for \$ 17,314 (2016: \$ 480,621) related to the loss of the Playas and Guatapé plants (See note 32. Other income).

At the end of the periods, impairment tests were made to the assets linked to the CGUs which, in turn, have intangibles with an indefinite useful life, resulting in the impairment of some components, this implied their recognition in the financial statements (see note 7).

The following is the historic cost of the properties, plant and equipment completely depreciated that still in operation in 2017 and 2016:

| Group                                | 2017           | 2016          |
|--------------------------------------|----------------|---------------|
| Plants, ducts and tunnels            | 18.120         | 14.103        |
| Communication and Computer equipment | 55.196         | 22.235        |
| Networks, lines and cables           | 6.772          | 4.831         |
| Machinery and equipment              | 9.114          | 4.418         |
| Buildings                            | 1.208          | 393           |
| Other property, plant and equipment  | 11.010         | 4.519         |
| <b>Total</b>                         | <b>101.421</b> | <b>50.499</b> |

- Amounts expressed in millions of Colombian pesos -

<sup>(1)</sup> The most significant variation in communication and computer equipment is due to the replacement plan that will be carried out in 2018.

## Note 5. Investment Property

The fair value of the investment properties is based on an annual appraisal made by experts that have renowned professional capacity and a recent experience on the category of the real estate investments object of the valuation; this value has been determined each year by officers of the EPM Group specialist appraisers or by independent appraiser companies such as Corporación Avalúos, Lonja Inmobiliaria, Activos e Inventarios Limitada, Panamericana de Avaluos S.A and ECO Ambiente S.A. To determine the fair value of the investment properties it is used the comparative or market method, which consists in deducing the price by comparison of transactions, supply and demand and appraisals of similar or comparable properties, prior adjustments of time, conformation, and location; and the residual method that is applied only to the buildings and is based on the determination of the updated cost of the construction, less the depreciation for age and conservation condition; the income method, which is used to determine the possible value of a good according to its ability to generate income taking into account the likely monthly value of the property that renters would be willing to pay in the rental market. See note 43 Measurement of fair value on a recurring and non-recurring basis.

| Investment properties                                         | 2017           | 2016           |
|---------------------------------------------------------------|----------------|----------------|
| Balance as of January 1                                       | 124.589        | 165.488        |
| Net profit (loss) for adjustment of fair value <sup>(1)</sup> | 10.373         | -12.429        |
| Disposals (-)                                                 | -161           | -1.105         |
| Exchange Rate Differences                                     | -44            | -370           |
| Transfers <sup>(2)</sup> (-/+)                                | -9.180         | -26.995        |
| Other changes                                                 | 1.163          | -              |
| <b>Balance as of December 31</b>                              | <b>126.740</b> | <b>124.589</b> |

- Amounts expressed in millions of colombian pesos colombianos -

<sup>(1)</sup> See detail in not 32. Other income and note 35. Other expenses.

<sup>(2)</sup> Includes transfers to properties, plant and equipment from investment properties.

Revenues from the leasing of investment properties of the period amounted to \$669 (2016: \$694). Direct expenses related to investment properties \$68 (2016: \$66).

As at December 31, 2017 and 2016 there were no contractual obligations to acquire, construct or development investment properties or for repairs, maintenance or improvements thereof.

As at December 31, 2017, there are no contractual restrictions on the investment property (2016: \$1,970), that corresponded to EPM, among which the Niquia lot of land was outstanding since it was affected by an electric power conduction easement, which could restrict the development of the commercial lot.

## Note 6. Other intangible assets

The following is the detail of the carrying amount of intangible assets:

| Intangibles                                    | 2017               | 2016               |
|------------------------------------------------|--------------------|--------------------|
| <b>Cost</b>                                    | <b>6.445.876</b>   | <b>5.839.216</b>   |
| Goodwill                                       | 3.349.147          | 3.202.442          |
| Other intangibles                              | 3.096.729          | 2.636.774          |
| <b>Accumulated depreciation and impairment</b> | <b>(1.308.752)</b> | <b>(1.050.020)</b> |
| Goodwill                                       | (288.476)          | (283.625)          |
| Other intangibles                              | (1.020.276)        | (766.395)          |
| <b>Total</b>                                   | <b>5.137.124</b>   | <b>4.789.196</b>   |

- Amounts expressed in millions of colombian pesos colombianos -

The cost movement, amortization and impairment of intangible assets is detailed below:

| 2017                                                             | Goodwill         | Concessions and similar rights | Capitalized development expenses | Software and information technology applications | Licenses        | Rights         | Other intangible assets <sup>(1)</sup> | Total              |
|------------------------------------------------------------------|------------------|--------------------------------|----------------------------------|--------------------------------------------------|-----------------|----------------|----------------------------------------|--------------------|
| Balance as of January 1                                          | 3.202.442        | 1.713.944                      | 46.323                           | 217.412                                          | 115.862         | 51.438         | 491.795                                | 5.839.216          |
| Business Combinations                                            | -                | -                              | -                                | -                                                | -               | -              | 504                                    | 504                |
| Additions <sup>(2)</sup>                                         | -                | 56.339                         | 25.133                           | 22.517                                           | 8.408           | -              | 2.447                                  | 114.844            |
| Transfers (-/+)                                                  | -                | 9.954                          | -                                | 16.395                                           | 912             | -              | 104.798                                | 132.059            |
| Disposals (-)                                                    | -                | -                              | -                                | (9.368)                                          | (9.921)         | -              | (425)                                  | (19.714)           |
| Exchange Difference                                              | 146.705          | 117.830                        | (83)                             | (461)                                            | (279)           | 34             | 39.254                                 | 303.001            |
| Other Changes                                                    | -                | 1.828                          | 82                               | (3.351)                                          | 566             | 2.492          | 74.348                                 | 75.965             |
| <b>Balance as of December 31</b>                                 | <b>3.349.147</b> | <b>1.899.895</b>               | <b>71.455</b>                    | <b>243.145</b>                                   | <b>115.548</b>  | <b>53.964</b>  | <b>712.722</b>                         | <b>6.445.876</b>   |
| Accumulated amortization and impairment as of January 1          | (283.625)        | (476.652)                      | (1.471)                          | (98.909)                                         | (61.623)        | (967)          | (126.773)                              | (1.050.020)        |
| Amortization of the period <sup>(3)</sup>                        | -                | (66.685)                       | (499)                            | (21.895)                                         | (9.353)         | (486)          | (37.103)                               | (136.021)          |
| Impairment of the period                                         | -                | (1.207)                        | (2.394)                          | -                                                | (663)           | -              | (2.061)                                | (6.324)            |
| Disposals (-)                                                    | -                | -                              | -                                | 8.640                                            | 9.268           | -              | -                                      | 17.908             |
| Exchange Difference                                              | (4.851)          | (156.436)                      | (9)                              | (4.135)                                          | (2.384)         | (242)          | 15.173                                 | (152.885)          |
| Other Changes                                                    | -                | (1.589)                        | (1.250)                          | (223)                                            | (51)            | 80             | 21.623                                 | 18.590             |
| <b>Accumulated amortization and impairment as of December 31</b> | <b>(288.476)</b> | <b>(702.569)</b>               | <b>(5.622)</b>                   | <b>(116.522)</b>                                 | <b>(64.806)</b> | <b>(1.615)</b> | <b>(129.141)</b>                       | <b>(1.308.752)</b> |
| <b>Net Intangible Assets as of December 31</b>                   | <b>3.060.671</b> | <b>1.197.326</b>               | <b>65.833</b>                    | <b>126.623</b>                                   | <b>50.742</b>   | <b>52.349</b>  | <b>583.581</b>                         | <b>5.137.124</b>   |

- Amounts expressed in millions of colombian pesos -



| 2016                                                      | Goodwill  | Concessions and similar rights | Capitalized development expenses | Software and information technology applications | Licenses | Rights  | Other intangible assets <sup>(1)</sup> | Total       |
|-----------------------------------------------------------|-----------|--------------------------------|----------------------------------|--------------------------------------------------|----------|---------|----------------------------------------|-------------|
| Balance as of January 1                                   | 3.291.113 | 1.557.054                      | 36.198                           | 171.189                                          | 92.622   | 55.687  | 501.418                                | 5.705.281   |
| Additions <sup>(2)</sup>                                  | -         | 92.720                         | 10.861                           | 32.416                                           | 25.715   | -       | 406                                    | 162.118     |
| Transfers (-/+)                                           | (53.003)  | 115.426                        | -                                | 15.286                                           | 1.019    | 2.931   | 4.510                                  | 86.169      |
| Disposals (-)                                             | -         | -                              | -                                | (1.360)                                          | (1.279)  | (9.943) | -                                      | (12.582)    |
| Exchange Rate                                             | (35.668)  | (4.698)                        | (15.576)                         | (118)                                            | (6.678)  | 9.576   | (21.389)                               | (74.551)    |
| Other Changes                                             | -         | (46.558)                       | 14.840                           | (1)                                              | 4.463    | (6.813) | 6.850                                  | (27.219)    |
| Balance as of December 31                                 | 3.202.442 | 1.713.944                      | 46.323                           | 217.412                                          | 115.862  | 51.438  | 491.795                                | 5.839.216   |
| Accumulated amortization and impairment as of January 1   | (212.839) | (394.598)                      | -                                | (82.024)                                         | (55.468) | (496)   | (123.005)                              | (868.430)   |
| Amortization of the period <sup>(3)</sup>                 | -         | (57.678)                       | -                                | (19.219)                                         | (9.005)  | (472)   | (34.280)                               | (120.654)   |
| Impairment of the period (Note 7)                         | (84.144)  | (63.305)                       | (1.472)                          | (207)                                            | (440)    | (17)    | (16.104)                               | (165.689)   |
| Reversal of loss of impairment (-)                        | -         | 23.539                         | -                                | 416                                              | 164      | -       | 1.545                                  | 25.664      |
| Disposals (-)                                             | -         | -                              | -                                | 1.345                                            | 1.206    | -       | -                                      | 2.551       |
| Transfers (-/+)                                           | -         | -                              | -                                | -                                                | -        | -       | 44.261                                 | 44.261      |
| Exchange Rate                                             | 13.358    | 15.390                         | -                                | 1.038                                            | 2.059    | 18      | -                                      | 31.863      |
| Other Changes                                             | -         | -                              | -                                | (259)                                            | (140)    | -       | 813                                    | 414         |
| Accumulated amortization and impairment as of December 31 | (283.625) | (476.652)                      | (1.472)                          | (98.910)                                         | (61.624) | (967)   | (126.770)                              | (1.050.020) |
| Net Intangible Assets as of December 31                   | 2.918.817 | 1.237.292                      | 44.851                           | 118.502                                          | 54.238   | 50.471  | 365.025                                | 4.789.196   |

- Amounts expressed in millions of colombian pesos -

- (1) Includes easements, intangibles related to customers and other intangibles corresponding to premiums at Gas Service Stations.
- (2) Includes purchases, capitalizable disbursements that meet the recognition criteria and concessions. In 2017, the purchases associated with capitalized disbursements for development disbursements were allocated to IT projects: Commercial information system and productivity in the field. At the end of 2017 and 2016 no subsidies were received from the Government.
- (3) See note 33 Costs for borrowing of services and note 34 Administration expenses.

At the closing of the periods an impairment test was made to the assets because there were intangible assets recorded with indefinite useful life. The detail of the impairment recognized in the Comprehensive income statement is in note 7. Impairment of assets.

The useful lives of the intangible assets are:

|                                                    |                                       |
|----------------------------------------------------|---------------------------------------|
| Concessions and similar rights                     | As per the contract 's effective term |
| Easements                                          | Indefinite                            |
| Capitalized disbursements for development          | Indefinite                            |
| Software y and information technology applications | Indefinite/ definite 3 to 5 years     |
| Licenses                                           | Indefinite/ definite 3 to 5 years     |
| Rights                                             | As per the contract 's effective term |
| Other intangible assets                            | Indefinite/ definite 7 to 15 years    |

The amortization of intangibles is recognized as costs and expenses in the statement of comprehensive income, profit and loss for the period, in the lines of service delivery costs and administration expenses.

As of December 31, 2017 and 2016 no restrictions were identified on the realization of intangible assets nor they have been affected as guarantee for the fulfillment of obligations, or contractual commitments for the acquisition of other intangible assets.

The carrying amount at the cut-off date and the remaining amortization period for the significant assets is:

| Significant Intangible Assets                                     | Useful life | Remaining amortization period - years | 2017      | 2016      |
|-------------------------------------------------------------------|-------------|---------------------------------------|-----------|-----------|
| Goodwill                                                          | Undefined   | -                                     | 3.060.672 | 2.918.817 |
| Easement line 53                                                  | Undefined   | -                                     | 61.530    | -         |
| Easement line 52                                                  | Undefined   | -                                     | 25.606    | -         |
| Elektra Noreste S.A. - Sistema de Gestión Comercial SAP           | Defined     | 11                                    | 36.807    | 38.365    |
| Distribución Eléctrica del Sur - Sistema de Gestión Comercial SAP | Defined     | 7                                     | 15.854    | 9.855     |
| Concession in Chile                                               | Defined     | 16                                    | 904.379   | 854.693   |

- Amounts expressed in millions of colombian pesos -

The amortization of intangible assets is recognized as costs for \$ 94,488 (2016: \$ 82,136) and expenses for \$ 41,533 (2016: \$ 38,517) in the statement of comprehensive income, profit and loss for the period, in the lines of costs for borrowing services (note 33) and administrative expenses (note 34).

The following intangible assets have an indefinite useful life: goodwill and easements, the latter are agreed in perpetuity.

By definition an easement is the actual right, perpetual or temporary on someone else's real estate, by virtue of which the property can be used, or exercise certain disposal rights, or prevent the owner from exercising some of his property rights. In the Group the easements are not treated individually, since

they are created for public utility projects, where the general interest prevails over the private one, considering that the objective is to improve the quality of life of the community; the above-mentioned projects do not have a defined term and thus they are created perpetually supported in their use. However, there are some easements with a definite useful life, since these are tied to the useful life of the principal asset required by the easement.

As of December 31, 2017 and 2016, intangible assets with an indefinite useful life have carrying amount of \$ 3,199,880 and \$ 2,953,964, respectively.

| Intangible assets with indefinite useful life              | 2017             | 2016             |
|------------------------------------------------------------|------------------|------------------|
| <b>Goodwill</b>                                            |                  |                  |
| Aguas de Antofagasta                                       | 1.669.881        | 1.541.829        |
| Empresa eléctrica de Guatemala S.A.                        | 929.781          | 915.784          |
| Proyecto Central Generación Ituango                        | 177.667          | 177.667          |
| Elektra Noreste S.A.                                       | 115.106          | 115.353          |
| Espíritu Santo                                             | 82.981           | 82.980           |
| Tecnología Intercontinental S.A. de C.V.                   | 1.167            | 1.114            |
| Empresas Varias de Medellín S.A. E.S.P                     | 78.642           | 78.642           |
| Empresa de Energía del Quindío S.A. E.S.P.                 | 5.135            | 5.135            |
| Surtigás Necoclí                                           | 303              | 303              |
| Central Hidroeléctrica de Caldas S.A. E.S.P                | 10               | 10               |
| <b>Subtotal goodwill</b>                                   | <b>3.060.672</b> | <b>2.918.817</b> |
| <b>Other intangible assets</b>                             |                  |                  |
| Easements(1)                                               | 139.208          | 35.147           |
| <b>Subtotal other intangible assets</b>                    | <b>139.208</b>   | <b>35.147</b>    |
| <b>Total intangible assets with indefinite useful life</b> | <b>3.199.880</b> | <b>2.953.964</b> |

- Amounts expressed in millions of colombian pesos -

(1) The variation that is presented in easements obeys mainly to the transfers to operation of the projects of Nueva Esperanza, Línea Caucasia and La Ceja Sonsón for \$ 99,588.

## Note 7. Impairment of assets

### 7.1 Impairment of investments in associates and joint ventures

As of the date of presentation of the financial statements no losses for impairment were recognized in the Statement of Comprehensive income, related to investments in associates and joint ventures.

### 7.2 Impairment of Cash Generating Units

The carrying amount of goodwill and intangible assets with indefinite useful lives associated with each CGU are detailed below:

| Cash Generating Unit             | Carrying Amount |         | Impairment losses (reversal) |        |
|----------------------------------|-----------------|---------|------------------------------|--------|
|                                  | 2017            | 2016    | 2017                         | 2016   |
| <b>Power Generating Unit</b>     |                 |         |                              |        |
| Goodwill                         | 260,647         | 260,647 | -                            | 12,626 |
| Easements                        | 747             | 3,791   | -                            | 21     |
| Concessions and franchises       |                 |         | -                            | 229    |
| Licenses                         |                 |         | 663                          | 408    |
| Disbursements development phases |                 |         | 2,394                        | 1,472  |

| Cash Generating Unit                       | Carrying Amount  |                  | Impairment losses (reversal) |                  |
|--------------------------------------------|------------------|------------------|------------------------------|------------------|
|                                            | 2017             | 2016             | 2017                         | 2016             |
| Other intangibles                          |                  |                  | 2,061                        | 4,588            |
| Real Estate                                |                  |                  | (164)                        | 7,402            |
| Constructions in progress                  |                  |                  | (19)                         | 838              |
| Buildings                                  |                  |                  | (165)                        | 22,111           |
| Plants, ducts y tunnels                    |                  |                  | 56,930                       | 210,945          |
| Networks, lines and cables                 |                  |                  | -                            | 2,516            |
| Machinery and equipment                    |                  |                  | 38                           | 11,532           |
| Furniture, office requisites and equipment |                  |                  | -                            | 6                |
| Communication and computer equipment       |                  |                  | -                            | 9                |
| Transport, traction and lifting equipment  |                  |                  | -                            | 26               |
| <b>Generation</b>                          | <b>261,394</b>   | <b>264,438</b>   | <b>61,738</b>                | <b>274,729</b>   |
| <b>Energy Transmission Segment</b>         |                  |                  |                              |                  |
| Servitudes                                 | 91,896           | 2,437            | -                            | -                |
| <b>Transmission</b>                        | <b>91,896</b>    | <b>2,437</b>     | -                            | -                |
| <b>Energy Distribution Segment</b>         |                  |                  |                              |                  |
| Merchant credit                            | 1,050,031        | 1,036,281        | -                            | -                |
| Intangible assets                          | 39,158           | 22,146           | -                            | -                |
| <b>Distribution</b>                        | <b>1,089,189</b> | <b>1,058,427</b> | -                            | -                |
| <b>Gas Segment</b>                         |                  |                  |                              |                  |
| Merchant Credit                            | 303              | 303              | -                            | -                |
| Servitudes                                 | 3,512            | 3,481            | -                            | -                |
| <b>Gas</b>                                 | <b>3,815</b>     | <b>3,784</b>     | -                            | -                |
| <b>Water Supply Segment</b>                |                  |                  |                              |                  |
| Merchant Credit                            | 1,519,592        | 1,403,065        | -                            | -                |
| Servitudes                                 | 2,520            | 2,858            | -                            | (1,257)          |
| Concessions and franchises                 |                  |                  | -                            | (24,189)         |
| Licenses                                   |                  |                  | -                            | (75)             |
| Software                                   |                  |                  | -                            | (143)            |
| Disbursements development phases           |                  |                  | -                            | (191,596)        |
| Replacement goods                          |                  |                  |                              | (141)            |
| Buildings                                  |                  |                  | -                            | (113,382)        |
| Plants, ducts y tunnels                    |                  |                  | -                            | (183,011)        |
| Networks, lines and cables                 |                  |                  | -                            | (192,420)        |
| Machinery and equipment                    |                  |                  | -                            | (2,957)          |
| Medical and scientific equipment           |                  |                  | -                            | (489)            |
| Furniture, office requisites and equipment |                  |                  | -                            | (185)            |
| Communication and computer equipment       |                  |                  | -                            | (19)             |
| Transport, traction and lifting equipment  |                  |                  | -                            | (1,349)          |
| <b>Water Supply</b>                        | <b>1,522,112</b> | <b>1,405,923</b> | -                            | <b>(711,213)</b> |
| <b>Sanitation Segment</b>                  |                  |                  |                              |                  |

| Cash Generating Unit                       | Carrying Amount  |                  | Impairment losses (reversal) |                |
|--------------------------------------------|------------------|------------------|------------------------------|----------------|
|                                            | 2017             | 2016             | 2017                         | 2016           |
| Merchant Credit                            | 230,098          | 218,521          | -                            | 71,518         |
| Servitudes                                 | 454              | 1,350            | -                            | 776            |
| Concessions and franchises                 |                  |                  | 1,207                        | 63,076         |
| Rights                                     |                  |                  | -                            | 17             |
| Licenses                                   |                  |                  | -                            | 32             |
| Software                                   |                  |                  | -                            | 207            |
| Other intangibles                          |                  |                  | -                            | 10,719         |
| Real Estate                                |                  |                  | -                            | 55,404         |
| Buildings                                  |                  |                  | -                            | 414            |
| Plants, ducts and tunnels                  |                  |                  | -                            | 86,876         |
| Network, lines and cables                  |                  |                  | -                            | 418,383        |
| Machinery and equipment                    |                  |                  | -                            | 1,720          |
| Furniture, office requisites and equipment |                  |                  | -                            | 16             |
| Communication and computer equipment       |                  |                  | -                            | 305            |
| Transport, traction and lifting equipment  |                  |                  | -                            | 1,311          |
| <b>Sanitation</b>                          | <b>230,552</b>   | <b>219,871</b>   | <b>1,207</b>                 | <b>710,774</b> |
| <b>Total</b>                               | <b>3,198,958</b> | <b>2,954,880</b> | <b>62,945</b>                | <b>274,290</b> |

<sup>(2)</sup> Amounts expressed in millions of Colombian pesos -

The goodwill is assigned mainly to the segments or CGUs that are detailed below:

| Cash Generating Unit                 | 2017             | 2016             | Generated as proceeds from                                                                                   |
|--------------------------------------|------------------|------------------|--------------------------------------------------------------------------------------------------------------|
| Generation EPM                       | 260,647          | 260,647          | Liquidation of the affiliate EPM Ituango S.A. E.S.P. and Espiritu Santo whose assets were transferred to EPM |
| Generation Parque Eólico los Cururos | -                | -                | Business Combination in the acquisition made by EPM Chile                                                    |
| Distribution EDEQ                    | 5,135            | 5,135            | Business Combination in the acquisition made by EPM Inversiones                                              |
| Distribution CHEC                    | 10               | 10               | Business Combination in the acquisition made by EPM Inversiones                                              |
| Distribution EEGSA                   | 929,781          | 915,784          | Business Combination in the acquisition of the Group Deca II made by EPM                                     |
| Distribution ENSA                    | 115,105          | 115,353          | Business Combination in the acquisition of Group PDG made by EPM                                             |
| Gas EPM                              | 303              | 303              | Business Combination with Surtidora de Gas del Caribe S.A. E.S.P. made by EPM                                |
| Water Provision Adasa                | 1,519,592        | 1,403,064        | Business Combination in the acquisition of Aguas de Antofagasta made by Inversiones Hanover                  |
| Sanitation Adasa                     | 150,289          | 138,765          | Business Combination in the acquisition of Aguas de Antofagasta made by Inversiones Hanover                  |
| Sanitation Ticsa                     | 1,167            | 1,114            | Business Combination in the acquisition of Grupo Ticsa made by EPM México                                    |
| Sanitation Emvarias                  | 78,642           | 78,642           | Business Combination in the acquisition made by EPM                                                          |
| <b>Total</b>                         | <b>3,060,671</b> | <b>2,918,817</b> |                                                                                                              |

The intangible Easements is assigned mainly to the segments or CGUs that are detailed below:

| Cash Generating Unit                 | 2017           | 2016          |
|--------------------------------------|----------------|---------------|
| Generation EPM                       | 444            | 444           |
| Generation CHEC                      | 57             | 2             |
| Generation Hidroecológica del Teribe | 247            | 3,345         |
| Transmission EPM                     | 91,861         | 2,402         |
| Transmission ESSA                    | 35             | 35            |
| Distribution EPM                     | 21,531         | 9,220         |
| Distribution EDEQ                    | 254            | 254           |
| Distribution CHEC                    | 6,021          | 5,097         |
| Distribution CENS                    | 1,803          | 724           |
| Distribution ESSA                    | 5,725          | 3,016         |
| Distribution EEGSA                   | 485            | 476           |
| Distribution ENSA                    | 3,341          | 3,359         |
| Gas EPM                              | 3,512          | 3,481         |
| Water provision EPM                  | 2,520          | 2,858         |
| Sanitation EPM                       | 454            | 1,350         |
| <b>Total</b>                         | <b>138,290</b> | <b>36,063</b> |

#### Impairment of assets and intangibles - CGU Generation Parque Eólico Los Cururos Ltda.

In Parque Eólico los Cururos Ltda. The impairment of its assets was calculated based on IAS 36 and IAS 16, seeking to make sure that the value of the assets that are being accounted for at the report of December 31, 2017 reflects their recoverable value through its utilization or their sale.

**Value in use:** It was made the estimation of the future cash flows that are expected to be obtained over the assets of the CGU; considering the expectations on possible changes in the value, in addition it was based on the most recent financial projections, estimating the cash flows that the Group expects to obtain from its assets for a period of 20 years.

The discount rate used for the valuation reflects the Company's capital structure, which considers the return that the owner would require to this type of investment, taking into account: the risk-free rate, the corresponding economic sector, the Market, the country where investment and debt are located.

Based on the above, the value of the impairment result of the assets as of December 31, 2017 increases to:

Value in use: \$99,231,068 United States dollars

Carrying amount of CGU: \$120,108,445 United States dollars

Impairment value: \$20,877,377 United States dollars

Conversion rate impairment expense 2,957.10

The key assumptions used by the EPM Group in the determination of the value in use/fair value less costs of sale are the following:

| Item   | Key Assumption                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Income | <p>The energy sales process of Parque Eólico Los Cururos Ltda. is mainly subject to sales for the spot market, to tenders with energy distribution companies and to free market tenders, which in turn may have to buy energy from other generators in the occasional or spot market.</p> <p>The lower income results in the horizon of the projections are basically based on the combination of several commercial elements, which highlights the generalized fall in</p> |

| Item               | Key Assumption                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | energy prices, the oversupply of renewable energy, the saturation of the transmission network, the lower generation in some periods of the horizon due to climatic conditions and the "uncoupling" effect, all these aspects have impacted the income of the Company both in determining the price and the generation of the park itself.                                                                                                                                                                                                                                                                                                                                             |
| Costs and expenses | The costs and expenses included in the financial projection behave in a stable manner; they were estimated in compliance with the regulation that is applied to the energy generating companies in the Republic of Chile taking into account the expenses associated to the environmental and social management, and the fulfillment of corporate commitments; the operating costs are due to the operating and maintenance contracts in effect which permit renegotiation of clauses and conditions including rates. It is possible that in the short and medium term, following the market conditions, these rates may decrease, situation that is not reflected in the projection. |
| Investment         | In order to estimate the required investment those disbursements corresponding to those associated to the replacement and overhauls necessary in the horizon of the projection were considered.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

#### Impairment of assets and intangibles - CGU Sanitation of Ecosistemas de Ciudad Lerdo

In Ecosistemas de Ciudad Lerdo the impairment of its assets was calculated based on IAS 36 and IAS 16, seeking to make sure that the value of the assets that are being accounted for at the report of December 31, 2017 reflects their recoverable value through its utilization or their sale.

**Value in use:** It was made the estimation of the future cash flows that are expected to be obtained over the assets of the CGU; considering the expectations on possible changes in the value, in addition it was based on the most recent financial projections, for a period that goes estimating the cash flows that the Group expects to obtain from its assets for a period that goes until 2032.

The discount rate that was used for the valuation reflects the capital structure of the company, which considers the performance that the owner would require from this type of investments, taking into account: the risk-free rate, the corresponding economic sector, the market, the country where the investment is located and the indebtedness.

At the end of the period, it was made an impairment test of the CGU, finding evidence of impairment, this was generated basically because the revenues are derived from the billing of the treatment of each m3 of water and the projected demand with the information available at the date, is less than the capacity of use required to free the value of the assets used in its operation

Based on the above, The value of the result of impairment of assets as of December 31, 2017 increases to:

|                                     |               |               |
|-------------------------------------|---------------|---------------|
| Value in use:                       | \$106,543,202 | Mexican Pesos |
| Carrying amount of CGU:             | \$114,286,621 | Mexican Pesos |
| Impairment Value:                   | \$7,743,419   | Mexican Pesos |
| Conversion rate impairment expense: | 155.87        |               |

The key assumptions used by the group in the determination of value in use / fair value less costs of sale are as follows:

| Concept            | Key Assumption                                                                                                                                                                                                                                                                                                                                                       |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Income             | The revenues come from the operation of the Wastewater Treatment Plant of Lerdo, treating ultrafiltration water and reverse osmosis sent to the Combined Cycle Power Plants of Gómez Palacios and Guadalupe Victoria at the request of the Federal Electricity Commission (CFE), projected until the expiration of the contract and based on historical consumption. |
| Costs and expenses | The costs and expenses were estimated in compliance with the maintenance of the plant, main inputs such as electricity, chemicals and personnel.                                                                                                                                                                                                                     |
| Investment         | No additional investment is estimated to the one already made.                                                                                                                                                                                                                                                                                                       |

The value in use and the carrying amount of the CGU at the end of 2017 that have an indefinite useful life is detailed below:

| Cash Generating Unit                      | Functional Currency | Value in use | Carrying amount |
|-------------------------------------------|---------------------|--------------|-----------------|
| Water provision EPM                       | Colombian pesos     | 2,470,547    | 2,108,760       |
| Sanitation EPM                            | Colombian pesos     | 2,660,711    | 709,960         |
| Generation EPM                            | Colombian pesos     | 28,718,825   | 15,265,764      |
| Transmission EPM                          | Colombian pesos     | 850,649      | 826,618         |
| Distribution EPM                          | Colombian pesos     | 5,916,277    | 3,725,177       |
| Gas EPM                                   | Colombian pesos     | 1,016,449    | 809,805         |
| Generation CENS                           | Colombian pesos     | 10,756       | 5,632           |
| Distribution CENS                         | Colombian pesos     | 1,039,334    | 790,678         |
| Generation CHEC                           | Colombian pesos     | 470,646      | 313,976         |
| Distribution CHEC                         | Colombian pesos     | 896,713      | 520,393         |
| Distribution EDEQ                         | Colombian pesos     | 288,778      | 182,283         |
| Generation ESSA                           | Colombian pesos     | 34,983       | 28,293          |
| Distribution ESSA                         | Colombian pesos     | 1,086,641    | 1,023,382       |
| Distribution EEGSA                        | Quetzals            | 6,401        | 4,302           |
| Distribution ENSA                         | American dollars    | 602          | 492             |
| Generation Parque Eólico los Cururos      | American dollars    | 102          | 96              |
| Sanitation Ticsa                          | Mexican pesos       | 864          | (650)           |
| Sanitation Emvarias                       | Colombian pesos     | 213,077      | 179,635         |
| Water provision Adasa                     | Chilean pesos       | 687,656      | 632,449         |
| Sanitation Adasa                          | Chilean pesos       | 68,010       | 60,621          |
| Generation Hydro-ecological of the Teribe | American dollars    | 180          | 153             |



## Note 8. Investments in subsidiaries

The detail of the subsidiaries of the Group at the date of the reporting period is the following:

| Name of subsidiary                                             | Location (Country) | Main Activity                                                                                                                                                                                                                        | Percentage of property and voting rights |        | Percentage of participation of the non-controlling party |        | Creation date |
|----------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|--------|----------------------------------------------------------|--------|---------------|
|                                                                |                    |                                                                                                                                                                                                                                      | 2017                                     | 2016   | 2017                                                     | 2016   |               |
| Empresa de Energía del Quindío S.A. E.S.P. (EDEQ)              | Colombia           | Provides public utilities for electric power purchase, sale and distribution of electricity.                                                                                                                                         | 92.85%                                   | 92.85% | 7.15%                                                    | 7.15%  | 22/12/1988    |
| Central Hidroeléctrica de Caldas S.A. E.S.P. (CHEC)            | Colombia           | It provides public energy services, operating power generation plants, transmission and sub transmission lines and distribution networks, as well as the commercialization, import distribution and sale of electricity.             | 80.10%                                   | 80.10% | 19.90%                                                   | 19.90% | 09/09/1950    |
| Electrificadora de Santander S.A. E.S.P. (ESSA)                | Colombia           | Provides public services of electrical energy purchase sale commercialization and distribution of electric energy.                                                                                                                   | 74.05%                                   | 74.05% | 25.95%                                                   | 25.95% | 16/09/1950    |
| Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS) | Colombia           | Provides public services for electricity, purchase, export, import, distribution and sale of electric power construction and operation of generating plants, transmission line substations and distribution networks.                | 91.52%                                   | 91.52% | 8.48%                                                    | 8.48%  | 16/10/1952    |
| Elektra Noreste S.A. (ENSA)                                    | Panama             | Acquires energy, transports, distributes to customers, transforms voltage, installs, operates and maintains public lighting, authorized to carry out power generation up to a limit of 15% of maximum demand in the concession area. | 51.16%                                   | 51.16% | 48.84%                                                   | 48.84% | 19/01/1998    |
| Hidroecológica del Teribe S.A. (HET)                           | Panama             | It finances the construction of the Bonyic hydroelectric project required to meet the growth of the energy demand of the isthmus of Panama.                                                                                          | 99.19%                                   | 99.19% | 0.81%                                                    | 0.81%  | 11/11/1994    |

| Name of subsidiary                                        | Location (Country) | Main Activity                                                                                                                         | Percentage of property and voting rights |         | Percentage of participation of the non-controlling party |        | Creation date |
|-----------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|---------|----------------------------------------------------------|--------|---------------|
|                                                           |                    |                                                                                                                                       | 2017                                     | 2016    | 2017                                                     | 2016   |               |
| Empresa Eléctrica de Guatemala S.A. (EEGSA)               | Guatemala          | Provides electricity distribution services.                                                                                           | 80.90%                                   | 80.90%  | 19.10%                                                   | 19.10% | 05/10/1939    |
| Gestión de Empresas Eléctricas S.A. (GESA)                | Guatemala          | Provides advice and consulting to distribution companies and electricity transmission.                                                | 100.00%                                  | 100.00% | -                                                        | -      | 17/12/2004    |
| Almacenaje y Manejo de Materiales Eléctricos S.A. (AMESA) | Guatemala          | Provides outsourcing services in the area of materials management.                                                                    | 99.94%                                   | 99.94%  | 0.06%                                                    | 0.06%  | 23/03/2000    |
| Comercializadora Eléctrica de Guatemala S.A. (COMEGSA)    | Guatemala          | Provides services of commercialization of electrical energy.                                                                          | 80.52%                                   | 80.52%  | 19.48%                                                   | 19.48% | 05/11/1998    |
| Transportista Eléctrica Centroamericana S.A. (TRELEC)     | Guatemala          | Provides services of Transmission of electrical energy.                                                                               | 80.90%                                   | 80.90%  | 19.10%                                                   | 19.10% | 06/10/1999    |
| Enérgica S.A. (ENERGICA)                                  | Guatemala          | Provides services of construction and maintenance of projects and goods of the electric sector.                                       | 78.19%                                   | 78.19%  | 21.81%                                                   | 21.81% | 31/08/1999    |
| Crediegsa S.A. (CREDIEGSA)                                | Guatemala          | Provides recruitment services and other administrative services.                                                                      | 80.90%                                   | 80.90%  | 19.10%                                                   | 19.10% | 01/12/1992    |
| Distribuidora de Electricidad del Sur (DELSUR)            | El Salvador        | Transformation, distribution and commercialization of electricity supplying the south central zone of El Salvador in Central America. | 86.41%                                   | 86.41%  | 13.59%                                                   | 13.59% | 16/11/1995    |

| Name of subsidiary                                  |     | Location<br>(Country) | Main Activity                                                                                                                                                                                                                                 | Percentage of<br>property and voting<br>rights |         | Percentage of<br>participation of the<br>non-controlling party |        | Creation date |
|-----------------------------------------------------|-----|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------|----------------------------------------------------------------|--------|---------------|
|                                                     |     |                       |                                                                                                                                                                                                                                               | 2017                                           | 2016    | 2017                                                           | 2016   |               |
| Innova Tecnología y Negocios S.A. de C.V.           |     | El Salvador           | Provision of specialized services in electrical engineering and sale of electrical appliances to electricity users of Del sur.                                                                                                                | 86.41%                                         | 86.41%  | 13.59%                                                         | 13.59% | 19/10/2010    |
| Parque Eólico Los Cururos Ltda.                     |     | Chile                 | Generation of electrical energy through all types of fuels and renewable energies such as wind, photovoltaic and biomass, transmission, purchase, sale and commercialization of electric energy.                                              | 100.00%                                        | 100.00% | -                                                              | -      | 26/08/2011    |
| Aguas Nacionales EPM S.A. E.S.P.                    | (1) | Colombia              | Provides public utilities for water, sewage and sanitation, treatment and waste management complementary activities and engineering services specific to these public services.                                                               | 99.99%                                         | 99.99%  | 0.01%                                                          | 0.01%  | 29/11/2002    |
| Aguas Regionales EPM S.A. E.S.P.                    |     | Colombia              | Ensure the provision of public residential water supply and sanitation services and compensate for the lag of the infrastructure of these services in the partner municipalities.                                                             | 69.76%                                         | 69.76%  | 30.24%                                                         | 30.24% | 18/01/2006    |
| Empresa de Aguas del Oriente Antioqueño S.A. E.S.P. |     | Colombia              | Provides public utilities of water and sewerage, as well as other complementary activities specific to each of these public services.                                                                                                         | 56.01%                                         | 56.01%  | 43.99%                                                         | 43.99% | 22/11/1999    |
| Aguas de Malambo S.A. E.S.P.                        | (2) | Colombia              | Dedicated to guarantee the provision of public utilities for sewage and sanitation in the jurisdiction of the Municipality of Malambo Department of the Atlantic.                                                                             | 97.64%                                         | 96.23%  | 2.36%                                                          | 3.77%  | 20/11/2010    |
| Ecosistemas de Colima S.A. de C.V.                  |     | Mexico                | Dedicated to elaborate executive project for the plant of treatment of residual waters, its construction equipment and putting into operation, conservation and maintenance stabilization of sludge in municipalities of the State of Colima. | 80.00%                                         | 79.99%  | 20.00%                                                         | 20.01% | 14/02/2006    |
| Ecosistemas de Tuxtla S.A. de C.V.                  |     | Mexico                | Dedicated to the construction, equipment, start-up, operation and maintenance of a waste water treatment system with the total private investment modality recoverable. Develop potable water projects and water treatment plants.            | 80.00%                                         | 80.00%  | 20.00%                                                         | 20.00% | 17/11/2006    |

| Name of subsidiary                               | Location (Country) | Main Activity                                                                                                                                                                                                                                                                                                                     | Percentage of property and voting rights |        | Percentage of participation of the non-controlling party |        | Creation date |
|--------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|--------|----------------------------------------------------------|--------|---------------|
|                                                  |                    |                                                                                                                                                                                                                                                                                                                                   | 2017                                     | 2016   | 2017                                                     | 2016   |               |
| Ecosistemas de Uruapan S.A. de C.V.              | Mexico             | Subsidiary dedicated to the provision of wastewater treatment services of the Municipality of Uruapan Michoacán includes construction, equipment, testing and commissioning, maintenance and maintenance of the plant.                                                                                                            | 80.00%                                   | 80.00% | 20.00%                                                   | 20.00% | 18/11/2009    |
| Ecosistema de Ciudad Lerdo S.A. de C.V.          | Mexico             | Subsidiary dedicated to the construction, equipment, commissioning, operation and maintenance for 20 years of a wastewater treatment system in the city Lerdo Durango, with the total private investment modality recoverable.                                                                                                    | 80.00%                                   | 80.00% | 20.00%                                                   | 20.00% | 24/04/2007    |
| Aquasol Morelia S.A. de C.V.                     | Mexico             | Subsidiary dedicated to the construction of a wastewater treatment plant, as well as the equipment and commissioning of said plant located in the town of Atapaneo in the Municipality of Morelia Michoacán.                                                                                                                      | 80.00%                                   | 80.00% | 20.00%                                                   | 20.00% | 13/11/2003    |
| Ecosistemas de Celaya S.A. de C.V.               | Mexico             | Dedicated to the elaboration of the executive project for the wastewater treatment plant, as well as to the treatment, transportation and final disposal of solid waste and sludge in the plant of the city of Celaya state of Guanajuato.                                                                                        | 80.00%                                   | 80.00% | 20.00%                                                   | 20.00% | 05/12/2008    |
| Desarrollos Hidráulicos de Tampico S.A. de C.V.  | Mexico             | Dedicated to the construction, equipment, extension, improvement, maintenance and operation of water supply systems and sewage services, collection, drainage and wastewater treatment works.                                                                                                                                     | 80.00%                                   | 79.99% | 20.00%                                                   | 20.01% | 25/08/1995    |
| Ecoagua de Torreón S.A. de C.V.                  | Mexico             | Dedicated to providing services of operation of treatment of waste water from any source, be it municipal or domestic, as well as the activity related to the treatment of waste water.                                                                                                                                           | 80.00%                                   | 80.00% | 20.00%                                                   | 20.00% | 25/10/1999    |
| Proyectos de Ingeniería Corporativa S.A. de C.V. | Mexico             | Provision of design, general or construction engineering services, professional and technical services tending to operate, manage, and generally carry out all the activities that are necessary for the development of activities of any commercial, industrial or service company, in its modality of physical or moral person. | 80.00%                                   | 80.00% | 20.00%                                                   | 20.00% | 01/08/2008    |

| Name of subsidiary                                  |     | Location<br>(Country) | Main Activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Percentage of<br>property and voting<br>rights |         | Percentage of<br>participation of the<br>non-controlling party |        | Creation date |
|-----------------------------------------------------|-----|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------|----------------------------------------------------------------|--------|---------------|
|                                                     |     |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2017                                           | 2016    | 2017                                                           | 2016   |               |
| Corporación de Personal Administrativo S.A. de C.V. |     | Mexico                | Provision of professional services tending to operate, administer, direct and generally carry out all the activities that are necessary for the development of activities of any commercial, industrial or service company in its modality of natural or moral person, as well as Also the administration, selection, contracting and exchange of personnel that performs functions within the facilities of the requesting companies.                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 80.00%                                         | 80.00%  | 20.00%                                                         | 20.00% | 01/08/2008    |
| Aguas de Antofagasta S.A.                           |     | Chile                 | Construction, and exploitation of public services for the production and distribution of drinking water and collection and disposal of wastewater through the exploitation of sanitary concessions of the Sanitary Services Company of Antofagasta S.A. (current Econssa Chile SA), and the performance of the other services related to these activities, all in the form and conditions established in the decrees with Force of Law numbers 382 and 70, both of the year 1998, of the Ministry of Public Works, and other relevant regulations. For this, dated December 29, 2003, Aguas de Antofagasta S.A. subscribed with the Sanitary Services Company of Antofagasta S.A. (Current Concessionaire of Sanitary Services S.A. - Econssa S.A.) the "Contract of transfer of the right of exploitation of sanitary concessions", for a total term of 30 years from the date of its subscription. | 100.00%                                        | 100.00% | -                                                              | -      | 28/11/2003    |
| Empresas Varias de Medellín S.A. E.S.P.             |     | Colombia              | Subsidiary dedicated to the provision of the public toilet service within the framework of the integral management of solid waste.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 99.93%                                         | 99.93%  | 0.07%                                                          | 0.07%  | 11/01/1964    |
| EPM Inversiones S.A.                                | (3) | Colombia              | Dedicated to the investment of capital in national or foreign companies organized as utilities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 99.99%                                         | 99.99%  | 0.01%                                                          | 0.01%  | 25/08/2003    |

| Name of subsidiary                                                  |     | Location<br>(Country) | Main Activity                                                                                                                                                                                                                                     | Percentage of<br>property and voting<br>rights |         | Percentage of<br>participation of the<br>non-controlling party |        | Creation date |
|---------------------------------------------------------------------|-----|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------|----------------------------------------------------------------|--------|---------------|
|                                                                     |     |                       |                                                                                                                                                                                                                                                   | 2017                                           | 2016    | 2017                                                           | 2016   |               |
| Maxseguros EPM Ltd.                                                 |     | Bermuda               | Negotiation, contracting and management of reinsurance for policies that protect the patrimony.                                                                                                                                                   | 100.00%                                        | 100.00% | -                                                              | -      | 23/04/2008    |
| Panamá Distribution Group S.A. - PDG                                |     | Panama                | Capital investment in companies.                                                                                                                                                                                                                  | 100.00%                                        | 100.00% | -                                                              | -      | 30/10/1998    |
| Distribución Eléctrica Centroamericana DOS S.A. - DECA II           |     | Guatemala             | It makes capital investments in companies engaged in the distribution and commercialization of electric power and in providing telecommunications services.                                                                                       | 100.00%                                        | 100.00% | -                                                              | -      | 12/03/1999    |
| Inmobiliaria y Desarrolladora Empresarial de América S.A. (IDEAMSA) |     | Guatemala             | Subsidiary dedicated to investing in real estate.                                                                                                                                                                                                 | 80.90%                                         | 80.90%  | 19.10%                                                         | 19.10% | 15/06/2006    |
| Promobiliaria S.A.                                                  |     | Panama                | Purchase, sell, construct, modify, manage, lease and generally enter into any contract for the disposition, improvement, use and usufruct of real estate not necessary for the operation of property of the companies that make up the EPM Group. | 100.00%                                        | 100.00% | -                                                              | -      | 08/09/2015    |
| EPM Latam S.A.                                                      | (4) | Panamá                | Make capital investments in companies.                                                                                                                                                                                                            | 100.00%                                        | 100.00% | -                                                              | -      | 17/05/2007    |
| EPM Capital México S.A. de C.V.                                     | (5) | Mexico                | It develops infrastructure projects related to energy, lighting, gas, telecommunications, sanitation, potable water treatment plants, sewage treatment, wastewater treatment, buildings, as well as its operation, studies and services.          | 100.00%                                        | 100.00% | -                                                              | -      | 04/05/2012    |
| EPM Chile S.A.                                                      | (6) | Chile                 | It develops energy projects, lighting, gas, telecommunications, sanitation, sewage treatment plants and sewage treatment, as well as providing such services and participating in all types of public and private tenders and auctions.           | 100.00%                                        | 100.00% | -                                                              | -      | 22/02/2013    |

| Name of subsidiary                               |     | Location (Country) | Main Activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Percentage of property and voting rights |         | Percentage of participation of the non-controlling party |        | Creation date |
|--------------------------------------------------|-----|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|---------|----------------------------------------------------------|--------|---------------|
|                                                  |     |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2017                                     | 2016    | 2017                                                     | 2016   |               |
| Inversiones y Asesorías South Water Services SpA |     | Chile              | Participate in all types of competitions, bidding, auctions are public and / or private in the purchase of stakes in domestic or foreign companies. Carry out strategic alliances, joint venture partnerships and enter into business collaboration agreements to compete for tenders, obtain concessions and / or authorizations. Provide all types of advisory and services related directly or indirectly to the activities performed and in which society is involved.           | 100.00%                                  | 100.00% | -                                                        | -      | 16/12/2014    |
| Tecnología Intercontinental S.A. de C.V. TICSA   | (7) | Mexico             | Dedicated to the study, development, promotion and execution of industrial projects, to the design, manufacture assembly and assembly of machinery technology development including commercial representation commercial and general trade.                                                                                                                                                                                                                                          | 80.00%                                   | 80.00%  | 20.00%                                                   | 20.00% | 28/07/1980    |
| Patrimonio Autónomo Financiación Social          | (8) | Colombia           | To manage the resources and payments of the program of social financing created to facilitate to its users the purchase of electrical appliances, gas appliances and products related to Information technology.                                                                                                                                                                                                                                                                     | 100.00%                                  | 100.00% | -                                                        | -      | 14/04/2008    |
| EV Alianza Energética S.A.                       | (9) | Panama             | Provision of energy efficiency services and all related services such as environmental services, marketing and financing of efficiency projects, as well as the provision of energy and technology solutions, production, transformation, purchase, sale and supply of energy, gas and related products Such as biogas; Consultancy services, studies, reports and projects relating to farms and previous services, as well as those relating to the environment and energy saving. | 51.00%                                   | 51.00%  | 49.00%                                                   | 49.00% | 22/01/2016    |

| Name of subsidiary                                 |      | Location (Country) | Main Activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Percentage of property and voting rights |      | Percentage of participation of the non-controlling party |      | Creation date |
|----------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------|----------------------------------------------------------|------|---------------|
|                                                    |      |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2017                                     | 2016 | 2017                                                     | 2016 |               |
| EPM Transmisión Chile S.A.                         | (10) | Chile              | Exploitation, development of electric systems intended to the transportation, transmission and transformation of electric energy, either within the country or abroad, and the acquisition thereof. For these purposes, it may obtain, acquire or enjoy the respective concessions, permits and authorizations, such as exercise the rights and powers that the legislation in effect grants to electric companies. In addition, the commercialization of the capacity of transportation lines and transformation of the substations and equipment associated to them, in order that the generating plants, nations and foreign, may transmit the electric power that they produce and reach their consumption centers. | 100.00%                                  | -    | -                                                        | -    | 02/02/2017    |
| Empresas Públicas de Rionegro S.A. E.S.P. - EP RIO | (11) | Colombia           | Rendering of domiciliary public utilities, among them water supply and sewage, as well as the complementary and related activities thereto; specifically the administration, operation, maintenance and investments of the water supply and sewage systems of the Municipality of Rionegro, the execution of programs and projects on the environment and the renewable and non-renewable natural resources; promote their sustainable development. Additionally, the company will provide the maintenance service of the public lighting network of the Municipality of Rionegro.                                                                                                                                      | 100.00%                                  | -    | -                                                        | -    | 09/12/1996    |
| ENSA Servicios S.A.                                | (12) | Panama             | Rendering of technical, commercial and any other service complementary to the rendering of the electric power service, without limiting the remaining analogous, related and/or compatible services that constitute an added value to the described activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 100.00%                                  | -    | -                                                        | -    | 29/11/2017    |

<sup>(1)</sup> In November 2017, EPM capitalized Aguas Nacionales EPM S.A. E.S.P. for \$ 259,999.

<sup>(2)</sup> During the reporting periods, EPM capitalized Aguas de Malambo S.A. E.S.P., as follows: November 2017 for \$ 12,499; March and December 2016 for \$ 9,000 and \$ 4,999, respectively.

<sup>(3)</sup> In June 2016, EPM Inversiones S.A. restituted contributions to EPM for \$ 165,000.

<sup>(4)</sup> As of June 30, 2017, EPM Latam recognized and classified as an investment in associate, the shareholding participation of 49%, equivalent to USD \$ 25,525.35 contributed as capital to the company VE Servicios de Eficiencia Energética S.A.S., constituted entity in February 2017

<sup>(5)</sup> In May 2016, EPM Latam S.A. capitalized EPM Capital México S.A. of C.V. in USD \$ 8,900,000.



In June 2017, EPM capitalized EPM Capital México S.A. of C.V. in \$ 23,999,907.55 Mexican pesos.

- (6) In August 2017 and October 2016, EPM capitalized EPM Chile S.A for \$ 10,703 and for \$ 87,744, respectively.
- (7) Subsidiary with branch in Colombia, registered at the Chamber of Commerce of Medellín on June 21, 2016, under the name of Ticsa Colombia.  
In June 2017, EPM Capital México S.A. of C.V. capitalized Tecnología Intercontinental S.A. of C.V. TICSA in \$ 24,000,000 Mexican pesos.
- (8) In November 2016, EPM increased its participation in the autonomous equity due to the withdrawal of UNE EPM Telecomunicaciones S.A. as a participating partner.
- (9) Subsidiary incorporated on January 22, 2016 in the Republic of Panama, according to Deed No. 2890 of the Fifth Public Notary of the Notarial Circuit of Panama City. Additionally, the Subsidiary has a branch in Colombia, registered in the Chamber of Commerce of Medellín on July 8, 2016, under the name of EV Alianza Energética S.A. Colombia Branch.
- (10) Subsidiary constituted on February 2, 2017 in the Republic of Chile, according to repertoire No. 4359-2017 of the twenty-seventh Public Notary of Santiago, Chile. In August 2017, it was capitalized by EPM Chile S.A. in \$ 10,703.
- (11) Subsidiary acquired by EPM through a purchase and sale transaction of shares perfected on October 31, 2017 (see note 9 - Business combinations). Subsequently, it was capitalized in November 2017 for \$ 14,235.
- (12) Subsidiary constituted on November 29, 2017 in the Republic of Panama, according to public deed No. 19,2017 of the Fifth Public Notary of the notarial circuit of Panama

The financial information of the subsidiaries of the EPM Group that have significant non-controlling participations as of the date of the period reported is as follows:

| 2017                                                           | Current assets | Non-current assets | Current liabilities | Non-current liabilities | Rendering of services | Result for the period | Other comprehensive income | Total comprehensive income | Cash flows |
|----------------------------------------------------------------|----------------|--------------------|---------------------|-------------------------|-----------------------|-----------------------|----------------------------|----------------------------|------------|
|                                                                |                |                    |                     |                         |                       | Continuing Operations |                            |                            |            |
| Elektra Noreste S.A. (ENSA)                                    | 479.239        | 1.617.560          | 1.002.947           | 619.404                 | 1.875.827             | 84.788                | (2.695)                    | 82.093                     | 13.602     |
| Empresa Eléctrica de Guatemala S.A. (EEGSA)                    | 425.320        | 1.397.928          | 448.446             | 516.828                 | 1.642.887             | 176.436               | (6.011)                    | 170.425                    | 15.402     |
| Electrificadora de Santander S.A. E.S.P. (ESSA)                | 256.755        | 1.277.097          | 282.117             | 669.520                 | 1.034.530             | 95.754                | (3.151)                    | 92.603                     | 104.144    |
| Distribuidora Eléctrica del Sur S.A. de C.V. (DELSUR)          | 146.202        | 323.963            | 145.456             | 203.618                 | 798.968               | 32.930                | (2.659)                    | 30.271                     | 11.573     |
| Central Hidroeléctrica de Caldas S.A. E.S.P. (CHEC)            | 236.067        | 840.980            | 164.082             | 382.867                 | 653.603               | 79.862                | (614)                      | 79.248                     | 58.176     |
| Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS) | 185.507        | 839.297            | 222.315             | 594.082                 | 615.993               | 17.653                | (2.284)                    | 15.369                     | 35.570     |
| Comercializadora Eléctrica de Guatemala S.A. (COMEGSA)         | 86.362         | 634                | 23.478              | 73                      | 253.038               | 12.926                | (534)                      | 12.392                     | 5.261      |
| Empresa de Energía del Quindío S.A. E.S.P. (EDEQ)              | 56.985         | 183.318            | 41.977              | 40.663                  | 218.959               | 24.821                | (596)                      | 24.225                     | 14.638     |
| Tecnología Intercontinental S.A. de C.V. (TICSA)               | 130.836        | 368.402            | 210.624             | 85.584                  | 74.350                | 11.976                | 812.406                    | 824.382                    | 19.979     |
| Transportista Eléctrica Centroamericana S.A. (TRELEC)          | 105.706        | 607.481            | 298.576             | 685                     | 84.935                | 41.606                | 5.067                      | 46.673                     | 349        |
| Aguas Regionales EPM S.A. E.S.P.                               | 24.982         | 104.149            | 23.670              | 21.165                  | 48.209                | 7.859                 | -                          | 7.859                      | 11.313     |
| Otras participaciones <sup>(1)</sup>                           | 911.678        | 3.797.409          | 554.543             | 1.070.701               | 476.679               | 164.887               | 2.407                      | 167.294                    | 393.129    |

- Amounts expressed in million of Colombian pesos -

| 2016                                                                | Current assets | Non-current assets | Current liabilities | Non-current liabilities | Rendering of services | Result for the period | Other comprehensive income | Total comprehensive income | Cash flows |
|---------------------------------------------------------------------|----------------|--------------------|---------------------|-------------------------|-----------------------|-----------------------|----------------------------|----------------------------|------------|
|                                                                     |                |                    |                     |                         |                       | Continuing Operations |                            |                            |            |
| Elektra Noreste S.A. (ENSA)                                         | 432.662        | 1.537.937          | 867.593             | 666.581                 | 1.730.697             | 98.559                | (84.676)                   | 13.883                     | 10.865     |
| Empresa Eléctrica de Guatemala S.A. (EEGSA)                         | 434.887        | 1.345.559          | 338.027             | 662.054                 | 1.633.182             | 180.396               | (66.681)                   | 113.715                    | 26.908     |
| Electrificadora de Santander S.A. E.S.P. (ESSA)                     | 226.040        | 1.123.487          | 279.694             | 501.626                 | 1.052.899             | 87.327                | (9.876)                    | 77.451                     | 46.903     |
| Distribuidora Eléctrica del Sur S.A. de C.V. (DELSUR)               | 172.149        | 317.521            | 154.586             | 205.893                 | 715.500               | 43.496                | (19.947)                   | 23.549                     | 14.306     |
| Central Hidroeléctrica de Caldas S.A. E.S.P. (CHEC)                 | 214.039        | 809.952            | 127.844             | 392.748                 | 673.293               | 70.585                | (1.926)                    | 68.659                     | 60.450     |
| Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS)      | 164.812        | 715.492            | 182.738             | 473.573                 | 614.046               | 29.887                | (23.608)                   | 6.279                      | 30.050     |
| Comercializadora Eléctrica de Guatemala S.A. (COMEGSA)              | 72.540         | 660                | 19.926              | 56                      | 269.246               | 4.360                 | (5.913)                    | (1.553)                    | 11.697     |
| Empresa de Energía del Quindío S.A. E.S.P. (EDEQ)                   | 58.814         | 181.259            | 37.713              | 36.883                  | 229.928               | 35.600                | (1.651)                    | 33.949                     | 19.099     |
| Tecnología Intercontinental S.A. de C.V. (TICSA)                    | 92.858         | 323.998            | 156.932             | 80.348                  | 109.561               | (12.703)              | (50.537)                   | (63.240)                   | 45.608     |
| Transportista Eléctrica Centroamericana S.A. (TRELEC)               | 117.132        | 446.157            | 189.749             | 706                     | 88.201                | 48.756                | (14.206)                   | 34.550                     | 30         |
| Aguas Regionales EPM S.A. E.S.P. (antes Aguas de Urabá S.A. E.S.P.) | 20.338         | 97.236             | 18.029              | 23.109                  | 41.505                | 2.561                 | -                          | 2.561                      | 7.676      |
| Otras participaciones <sup>(1)</sup>                                | 1.000.730      | 3.548.548          | 519.261             | 1.110.329               | 427.121               | 147.508               | (65.499)                   | 82.009                     | 287.665    |

- Amounts expressed in millions of Colombian pesos -

<sup>(1)</sup> Corresponds to investments in subsidiaries where the non-controlling participation is not significant and includes the following affiliates: Hidroecológica del Teribe S.A. (HET), Enérgica S.A., Credieegsa S.A., Aguas Nacionales EPM S.A. E.S.P., Empresa de Aguas del Oriente Antioqueño S.A. E.S.P., Aguas de Malambo S.A. E.S.P., Ecosistemas de Colima S.A. de C.V., Empresas Varias de Medellín S.A. E.S.P., EPM Inversiones S.A., Inmobiliaria y Desarrolladora Empresarial de América S.A., Innova Tecnología y Negocios S.A. de C.V., Ecosistemas de Tuxtla S.A. de C.V., Ecosistemas de Uruapan S.A. de C.V., Ecosistema de Ciudad Lerdo S.A. de C.V., Aquasol Morelia S.A. de C.V., Ecosistemas de Celaya S.A. de C.V., Desarrollos Hidráulicos de TAM S.A. de C.V., Ecoagua de Torreón S.A. de C.V., Proyectos de Ingeniería Corporativa S.A. de C.V., Corporación de Personal Administrativo S.A. de C.V. and EV Alianza Energética S.A.

The profit and loss for the period, the dividends paid and equity assigned to the non-controlling interests as of the date of the reporting period is the following:

| Non-controlling interests                                   | 2017    |                      |                            |                | 2016    |                      |                            |                |
|-------------------------------------------------------------|---------|----------------------|----------------------------|----------------|---------|----------------------|----------------------------|----------------|
|                                                             | Equity  | Result of the period | Other comprehensive income | Dividends paid | Equity  | Result of the period | Other comprehensive income | Dividends paid |
| Elektra Noreste S.A. (ENSA)                                 | 231.702 | 41.407               | (249)                      | 22.426         | 213.133 | 48.133               | (152)                      | 30.764         |
| Electrificadora de Santander S.A. E.S.P. (ESSA)             | 151.103 | 24.851               | (818)                      | 20.398         | 147.467 | 22.664               | (2.563)                    | 18.472         |
| Empresa Electrica de Guatemala S.A. (EEGSA)                 | 163.855 | 33.696               | 312                        | 17.715         | 149.034 | 34.452               | (541)                      | 13.437         |
| Central Hidroelectrica de Caldas S.A. E.S.P. (CHEC)         | 105.485 | 15.892               | (122)                      | 10.457         | 100.172 | 14.046               | (383)                      | 4.180          |
| Transportista Electrica Centroamericana S.A. (TRELEC)       | 79.051  | 7.946                | -                          | 1.067          | 71.204  | 9.311                | -                          | 814            |
| Tecnologia Intercontinental S.A. de C.V. (TICSA)            | 28.331  | (571)                | 11                         | -              | 26.811  | (3.932)              | 689                        | -              |
| Centrales Electricas del Norte de Santander S.A. E.S.P.     | 17.675  | 1.497                | (194)                      | 2.625          | 18.997  | 2.535                | (2.002)                    | 2.272          |
| Distribuidora de Electricidad del Sur S.A. de C.V. (DELSUR) | 16.457  | 4.476                | (129)                      | 4.803          | 17.557  | 5.910                | -                          | 3.941          |
| Aguas Regionales S.A. E.S.P.                                | 25.491  | 2.376                | -                          | -              | 23.114  | 774                  | -                          | -              |
| Comercializadora Electrica de Guatemala S.A. (COMEGSA)      | 12.117  | 2.469                | -                          | 457            | 10.163  | 833                  | -                          | 638            |
| Empresa de Energia del Quindio S.A. E.S.P. (EDEQ)           | 11.265  | 1.774                | (43)                       | 2.289          | 11.824  | 2.544                | (118)                      | 971            |
| Otras participaciones no controladas <sup>(1)</sup>         | 15.123  | 4.987                | (6)                        | 4.091          | 13.986  | 4.476                | (79)                       | 2.543          |

- Amounts expressed in millions of Colombian pesos -

- <sup>(1)</sup> Corresponds to investments in subsidiaries where the non-controlling interest is not significant and includes the following companies: Inmobiliaria y Desarrolladora Empresarial de America S.A., Enérgica S.A., Aguas de Malambo S.A. E.S.P., Water Company of Eastern Antioquia S.A. E.S.P., Hidroecológica del Teribe S.A., Crediegsa S.A., Aguas Nacionales EPM S.A. E.S.P., Ecosystems of Colima S.A. de C.V., Empresas Varias de Medellín S.A. E.S.P. and E.V. Energy Alliance S.A.

### 8.1 Changes in participation in subsidiaries that did not result in a loss of control

As of December 31, 2017 and 2016, the Group did not dispose of its participation in any subsidiary that did not result in a loss of control.

### 8.2 Significant restrictions

As of December 31, 2017 and 2016, the Group does not have significant restrictions to access or use the assets, liquidate liabilities of the Group; the uncontrolled interests do not have either protective rights that could restrict the Group's capacity to access or use the assets and liquidate the liabilities of subsidiaries or restrict the dividends and other capital distributions.

### 8.3 Consolidated structured entities

As of December 31, 2017, and 2016 the Group owns as structured entity consolidated to the Stand-Alone Trust Fundación Social. The interest in that entity is of 100%, the value of total assets amounts to \$144,112 (2016: \$128,734, total liabilities are \$9,911 (2016: \$8,057) and the net profit and loss of the period is 13,871 (2016: \$1,293).

The Group does not have obligation to provide financial support to the Entity.

### 8.4 Loss of control of a subsidiary

As of December 31, 2016, investments in the subsidiaries Ecosistema de Morelos S.A. of C.V. and Aquasol Pachuca S.A. of C.V. were classified by the Intercontinental Technology subsidiary S.A. of C.V. TICSAs, as financial instruments measured with changes in results, transaction that was generated as a result of the loss of control of the EPM Group, in such entities.

The effect of the transaction on the result of the period is as indicated below:

|                                                          | Ecosistema de Morelos<br>S.A. de C.V. <sup>(1)</sup> | Aquasol Pachuca<br>S.A. de C.V. <sup>(2)</sup> |
|----------------------------------------------------------|------------------------------------------------------|------------------------------------------------|
| Exchange value <sup>(3)</sup>                            | 5.688                                                | -                                              |
| Value of the net assets of the subsidiary <sup>(4)</sup> | (6.480)                                              | 37                                             |
| <b>Result from loss of control of subsidiaries</b>       | <b>(792)</b>                                         | <b>37</b>                                      |

- Amounts expressed in millions of Colombian pesos -

- (1) It performs activities related to the construction, electromecanic equipment, operating tests, capacity, start up, operation, conservation and maintenance of the wastewater treatment plant Acapantzingo Municipality Cuernavaca Morelos.
- (2) Performs activities related to the preparation of the executive construction project of one wastewater treatment plant, its equipment and start up in the city of Pachuca de Soto. In addition, it may perform potable water and purification plants projects.
- (3) It corresponds to the fair value determined in the valuation made at the time of the classification of the investments as financial instruments.
- (4) As of the date of the transaction the value of the net assets of Aquasol Pachuca S.A. de DC.V. was negative.

The net effect as of the date of the transaction in the Consolidated statement of cash flows represents a decrease corresponding to the cash and cash equivalents that were held in the subsidiaries Ecosistema de Morelos S.A. de C.V. and Aquasol Pachuca S.A. de C.V. for \$8 and \$2, respectively.

On December 15, 2017, the subsidiary TICSAs celebrated a purchase contract of shares, where it sells and transfers 571,673 shares that possessed in the company Aquasol Pachuca S.A. of C.V. to the company Ecosistema de Sonora S.A.P.I. of C.V., this transaction generated a profit on the sale of shares of MXP \$ 72,000 (COP \$ 11). See note 38 Effect for participation in equity investments.

## Note 9. Business combinations

The detail of the business combinations made by the Group as of the date of the reporting periods is as follows:

| Year | Entity                                             | Activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Transaction Date | Participation Acquired |
|------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------|
| 2017 | Empresas Públicas de Rionegro S.A. E.S.P. - EP RIO | Rendering of domiciliary public utilities, among them water supply and sewage, as well as the complementary and related activities thereto; specifically the administration, operation, maintenance and investments of the water supply and sewage systems of the Municipality of Rionegro, the execution of programs and projects on the environment and the renewable and non-renewable natural resources; promote their sustainable development. Additionally, the company will render the maintenance service of the public lighting network of the Municipality of Rionegro. | 31/10/2017       | 100%                   |

#### Empresas Públicas de Rionegro S.A. E.S.P. - EP RIO:

On October 6, 2017, EPM signed an inter-administrative agreement for the purchase of 100% of the shares of Empresas Publicas de Rionegro S.A. E.S.P., formalizing the transaction on October 31, 2017 and acquiring the control of that company as of November 1, 2017.

Empresas Publicas de Rionegro S.A. E.S.P. is a joint stock company incorporated on December 9, 1996, with domiciled established in the municipality of Rionegro, Department of Antioquia, Republic of Colombia, and with commercial registration No. 4558 of book IX from the Chamber of Commerce of Eastern Antioquia. Its corporate object is the rendering of domiciliary public utilities, among them water supply and sewage, as well as the activities that are complementary or related thereto; specifically the administration, operation, maintenance and investments of the water supply and sewage systems of the Municipality of Rionegro, the performance of programs and projects on the environment and renewable and non-renewable natural resources, and to seek their sustainable development. Additionally, the company will provide the maintenance service of the public lighting network of the Municipality of Rionegro.

The Group acquired the control of that company mainly for the following factors:

- For the NPD (National Planning Department) the Medellin-Rionegro axis will be by 2035 one of the ten (10) city axis that will lead the economic development of Colombia. Rionegro, one of the 17 municipalities category 1 of the country and the most important one of Eastern Antioquia.
- According to CAMACOL (Colombian Construction Chamber), the Near East of Antioquia is one of the zones with the highest growth in sales of new homes.
- The Valley of San Nicolas is almost three (3) times, in size, the Valley of Aburra and its entry to Rionegro would permit to consolidate EPM as provider of public utilities of water supply and sewage, where currently it provides energy and gas services.
- An adequate provision of the public utilities of water supply and sewage in the municipality would promote its development, resulting in higher income for the EPM Group with the offer of a wide service portfolio.
- EPM would contribute to the environmental sustainability of the region, particularly, by the investment in wastewater treatment that point to the protection of the water resources. In this respect EPM would make an important contribution to the current problems of the Guatape dam in the short and medium term.
- Consolidate the social and political legitimacy of the EPM presence in this region.
- The competitive advantage because of the closeness of the Jose María Cordoba Airport would lead to the migration of large companies to this municipality, which would consolidate the industrial zone that it has today.
- The Municipality faces pressures on the increase of the population density and boom in home construction, generating great pressure from all actors to make viable the region's development and demanding investments in infrastructure.
- The current high water supply and sewerage rates, that do not have the capacity to serve the growth needs, at least in the short term.

- Limitation of partners to capitalize the company, in order to take care of the investment requirements.
- There is no availability of non-recoverable resources - that do not go to the rate - to make the investments. Rionegro does not form part of the PDA (Department Water Plan) and its NPD rating does not allow it to access this source of funds.
- Insufficient water sources to take care of the future demand, which generated great pressure to the mayor, added to the difficulties with the quality of the current sources (highly contaminated).
- EP RIO presents a serious of environmental nonfulfillment that affect the community and its environment, with the financial consequences that these aspects may bring

The detail of the fair value of the net assets acquired as at December 31, 2017 and the results by business combination is the following:

| Item                                                                     | Fair Value    |
|--------------------------------------------------------------------------|---------------|
| Property, plant and equipment                                            | 42.381        |
| Intangibles                                                              | 504           |
| Other current assets                                                     | 1.715         |
| Accounts receivable <sup>(1)</sup>                                       | 4.949         |
| Inventories                                                              | 515           |
| Cash and cash equivalents                                                | 19.234        |
| <b>Identifiable assets</b>                                               | <b>69.298</b> |
| Credits and loans                                                        | 10.505        |
| Accounts payable                                                         | 965           |
| Taxes, contributions and rates                                           | 3.156         |
| Contingent liabilities <sup>(2)</sup>                                    | 16.572        |
| Employee benefits                                                        | 492           |
| Other current liabilities                                                | 3.685         |
| Deferred tax liability                                                   | 1.254         |
| <b>Assumed liabilities</b>                                               | <b>36.629</b> |
| <b>Total net identifiable assets at fair value</b>                       | <b>32.669</b> |
| <b>Total fair value of the consideration transferred consideration v</b> | <b>-</b>      |
| <b>Result by business combination<sup>(3)</sup></b>                      | <b>32.669</b> |

- Amount in millions of Colombian pesos -

- (1) The fair and gross value of the contractual amounts receivable and their composition at the date of the transaction is the following:

|                                                         | Fair Value   | Gross contractual amounts receivable |
|---------------------------------------------------------|--------------|--------------------------------------|
| Trade accounts receivable and other accounts receivable | 4.949        | 4.552                                |
| <b>Total cuentas por cobrar</b>                         | <b>4.949</b> | <b>4.552</b>                         |

- Amount in millions of Colombian pesos -

As of the date of the transaction there was an impairment of receivables for \$2,744 corresponding to contractual cash flows that were not expected to be collected.

- (2) It corresponds to all litigations and contingencies resulting from legal actions against EP Rio originated in the performance of its operations. These will be resolved once their final decision is issued by the competent authorities. As of the date of presentation the fair value of these liabilities is \$16,765, of which \$1,578 have been rated as probable. See Note 27. Provisions, assets and contingent liabilities.

Costs were recognized for the transaction for \$552 that had been recognized as expenses of the period and included in the line of fee expenses in the income statement.

The revenues from ordinary activities and resulting from EP Rio included in the consolidated financial statements are:

|                                                                                     | 2017   |
|-------------------------------------------------------------------------------------|--------|
| <b>From the acquisition date up to the reporting period</b>                         |        |
| Income from ordinary activities                                                     | 5.232  |
| Profit                                                                              | 1.928  |
| <b>From the beginning of the annual reporting period up to the reporting period</b> |        |
| Income from ordinary activities                                                     | 21.698 |
| Profit                                                                              | 3.576  |

- Amount in millions of Colombian pesos -

- (3) During the period a result for business combination for \$32,669 was recognized included in the line of effect by participation in equity investments in the Comprehensive income statement, originated by the difference between the consideration transferred and the fair value of the identifiable net assets acquired<sup>2</sup>.

The consideration transferred was established based on the valuation of the company that considers the forward investments (investments in capital goods - capex - that are performed when a business invests in the purchase of a fixed asset or to add value to an existing asset) that must be made to guarantee their viability and an adequate rendering of public services; that generates a negative value thereof.

The analysis of cash flows of the acquisition of EP Rio is:

|                                                                                     | 2017          |
|-------------------------------------------------------------------------------------|---------------|
| Consideration transferred                                                           | -             |
| Costs of acquisition transaction (including cash flows for operating activities)    | (552)         |
| Net cash acquired from subsidiary (including cash flow from investment activities ) | 19.234        |
| <b>Net cash flow at the acquisition date</b>                                        | <b>18.682</b> |

- Amount in millions of Colombian pesos -

## Note 10. Investments in associates

The detail of the associates of the EPM Group as of the date of the period reported is as follows:

<sup>2</sup> Established based on IFRS 13 fair value measurement.

| Name of the associate                          | Location (Country) | Main Activity                                                                                                                                                                                                                                                                                                                                                                                                         | Percentage of ownership and voting rights |        | Creation date |
|------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------|---------------|
|                                                |                    |                                                                                                                                                                                                                                                                                                                                                                                                                       | 2017                                      | 2016   |               |
| Hidroeléctrica Ituango S.A. E.S.P.             | Colombia           | Promotion, design, construction operation, maintenance and commercialization of energy at the national and international level of the Hituango Pescadero Hydroelectric Power Plant.                                                                                                                                                                                                                                   | 46,45%                                    | 46,45% | 8/06/1998     |
| Hidroeléctrica del Rio Aures S.A. E.S.P.       | Colombia           | Generation and commercialization of electric power through a hydroelectric power station, located in the jurisdiction of the municipalities of Abejorral and Sonsón of the Department of Antioquia.                                                                                                                                                                                                                   | 42,04%                                    | 42,04% | 14/05/1997    |
| UNE EPM Telecomunicaciones S.A. <sup>(1)</sup> | Colombia           | Provision of telecommunications and information technologies services and communications information services and complementary activities.                                                                                                                                                                                                                                                                           | 50,00%                                    | 50,00% | 23/06/2006    |
| Inversiones Telco S.A.S. <sup>(2)</sup>        | Colombia           | Invest in companies whose social objects are based on the provision of business process outsourcing (BPO) services for companies, especially but not limited to telecommunications companies.                                                                                                                                                                                                                         | 50,00%                                    | 50,00% | 5/11/2013     |
| VE Servicios de Eficiencia Energéica S.A.S.    | Colombia           | Carry out all activities, works and services proper or related to the installation, exploitation and production of energy of each one of the energetic efficiency projects performed by EV Alianza Energética S.A., such as the rendering of energetic and technological solutions, production, transformation, purchases, sale and supply of energies, gas and related products such as biogas; consulting services. | 49,00%                                    | -      | 21/02/2017    |

The financial information of the significant associates of the EPM Group as of the date of the period reported is the following. All associates are accounted for by equity method in the consolidated financial statements:



| 2017                                         | Current Assets | Non-current assets | Current liabilities | Non-current liabilities | Rendering of services | Result of the period  | Other comprehensive income | Total comprehensive income | Cash flows |
|----------------------------------------------|----------------|--------------------|---------------------|-------------------------|-----------------------|-----------------------|----------------------------|----------------------------|------------|
|                                              |                |                    |                     |                         |                       | Continuing operations |                            |                            |            |
| UNE EPM Telecomunicaciones S.A.              | 1.583.649      | 5.701.485          | 1.446.687           | 3.941.393               | 5.060.311             | (62.766)              | (7.060)                    | (69.826)                   | -          |
| Inversiones Telco S.A.S.                     | 142.850        | 51.054             | 55.619              | 3.628                   | 400.940               | 15.296                | -                          | 15.296                     | -          |
| Hidroeléctrica Ituango S.A. E.S.P.           | 2.598          | 95.419             | 721                 | 47.841                  | -                     | (25)                  | -                          | (25)                       | -          |
| VE Servicios de Eficiencia Energética S.A.S. | 513            | 30                 | 283                 | -                       | 420                   | 110                   | -                          | 110                        | -          |
| Hidroeléctrica del Río Aures S.A. E.S.P.     | 454            | 4.978              | 37                  | -                       | -                     | (906)                 | -                          | (906)                      | -          |

Amounts expressed in millions of Colombian pesos -

| 2016                                     | Current Assets | Non-current assets | Current liabilities | Non-current liabilities | Rendering of services | Result of the period  | Other comprehensive income | Total comprehensive income | Cash flows |
|------------------------------------------|----------------|--------------------|---------------------|-------------------------|-----------------------|-----------------------|----------------------------|----------------------------|------------|
|                                          |                |                    |                     |                         |                       | Continuing operations |                            |                            |            |
| UNE EPM Telecomunicaciones S.A.          | 1.422.244      | 5.958.503          | 1.476.685           | 3.994.087               | 5.145.816             | -141.307              | (2.472)                    | -143.779                   | -          |
| Inversiones Telco S.A.S.                 | 128.662        | 52.789             | 59.503              | 2.587                   | 390.748               | 2.676                 | -                          | 2.676                      | -          |
| Hidroeléctrica Ituango S.A. E.S.P.       | 4.087          | 72.572             | 1.100               | 26.078                  | -                     | -220                  | -                          | -220                       | -          |
| Hidroeléctrica del Río Aures S.A. E.S.P. | 1.712          | 4.731              | 50                  | 93                      | -                     | 19                    | -                          | 19                         | -          |

Amounts expressed in millions of Colombian pesos -

The financial information of these companies, the basis for applying equity method, is prepared under IFRS and adjusted to the Group's accounting policies.

The reconciliation of the summary financial information with the carrying amount of associates in the consolidated financial statements is:

| Associated                                   | 2017             |                         |                  | 2016             |                         |                  |
|----------------------------------------------|------------------|-------------------------|------------------|------------------|-------------------------|------------------|
|                                              | Investment Value |                         | Total            | Investment Value |                         | Total            |
|                                              | Cost             | Method of participation |                  | Cost             | Method of participation |                  |
| UNE EPM Telecomunicaciones S.A.              | 2.342.488        | (630.333)               | 1.712.155        | 2.342.488        | (601.505)               | 1.740.983        |
| Inversiones Telco S.A.S.                     | 55.224           | 12.105                  | 67.329           | 55.224           | 4.457                   | 59.681           |
| Hidroeléctrica Ituango S.A. E.S.P.           | 34.313           | (11.343)                | 22.970           | 34.313           | (11.331)                | 22.982           |
| Hidroeléctrica del Río Aures S.A. E.S.P.     | 2.478            | (232)                   | 2.246            | 2.478            | 149                     | 2.627            |
| VE Servicios de Eficiencia Energética S.A.S. | 76               | 51                      | 127              | -                | -                       | -                |
| <b>Total associated investments</b>          | <b>2.434.579</b> | <b>(629.752)</b>        | <b>1.804.827</b> | <b>2.434.503</b> | <b>(608.230)</b>        | <b>1.826.273</b> |

Amounts expressed in millions of Colombian pesos -

### Significant restrictions

As of December 31, 2017 and 2016, the EPM Group does not have significant restrictions in investments in associates related to the transfer of funds to the EPM Group in the form of dividends in cash or reimbursement of loans or advances made by the EPM Group.

## Note 11. Investments in joint ventures

The detail of joint ventures of the EPM Group as of the date of the period reported is the following:

| Name of joint venture                 | Location (country) | Main Activity                                                                                                            | Percentage of ownership and voting rights |      | Creation date |
|---------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------|---------------|
|                                       |                    |                                                                                                                          | 2017                                      | 2016 |               |
| Parques del Río S.A.S. <sup>(1)</sup> | Colombia           | Construction, operation and support of the project Parques del Río Medellín, as well as acting as urban project manager. | 33%                                       | 33%  | 26/11/2015    |

- (1) Joint venture constituted on November 26, 2015, with the participation of the municipality of Medellin, Interconexión Eléctrica S.A. E.S.P. (ISA), Empresa de Transporte Masivo del Valle de Aburra Ltda. (Metro) and EPM. The strategic support of the participation of EPM in that company is based on the following aspects:
- Apply the experience of EPM in developments of infrastructure at large scale.
  - EPM is qualified to participate by the POT.

The financial information of the Group's significant joint ventures at the date of the reporting period is as follows. All joint ventures are accounting for by equity method in the consolidated financial statements:

| 2017                   | Current assets | Current liabilities | Result of the period  | Total comprehensive income | Dividends received |
|------------------------|----------------|---------------------|-----------------------|----------------------------|--------------------|
|                        |                |                     | Continuing operations |                            |                    |
| Parques del Río S.A.S. | 254            | 6                   | (32)                  | (32)                       | -                  |

Amounts expressed in millions of Colombian pesos -

| 2016                   | Current assets | Current liabilities | Result of the period  | Total comprehensive income | Dividends received |
|------------------------|----------------|---------------------|-----------------------|----------------------------|--------------------|
|                        |                |                     | Continuing operations |                            |                    |
| Parques del Río S.A.S. | 282            | 1                   | (17)                  | (17)                       | -                  |

Amounts expressed in millions of Colombian pesos -

At December 31, 2017 and 2016 the company Parques del Río S.A.S. is in the pre-operational phase, it does not require capitalizations and in case they are required they will have to be authorized by the Board of Directors. Consequently, because it is in the pre-operational phase it does not have operating income.

The financial information of this company, base for application of equity method, is prepared under IFRS and adjusted to the Group's accounting policies.

The reconciliation of the financial information summarized with the carrying value of the joint ventures in the financial statements is:

| Name of joint venture                 | 2017             |                         |           | 2016             |                         |           |
|---------------------------------------|------------------|-------------------------|-----------|------------------|-------------------------|-----------|
|                                       | Investment Value |                         |           | Investment Value |                         |           |
|                                       | Cost             | Method of participation | Total     | Cost             | Method of participation | Total     |
| Parques del Río S.A.S.                | 99               | (17)                    | 82        | 99               | (6)                     | 93        |
| <b>Total joint venture investment</b> | <b>99</b>        | <b>(17)</b>             | <b>82</b> | <b>99</b>        | <b>(6)</b>              | <b>93</b> |

Amounts expressed in millions of Colombian pesos -

### Significant restrictions

At December 2017 and 2016 the Group does not have significant restrictions in investments in joint ventures related to the transfer of funds to the Group in the form of dividends in cash, or reimbursement of loans or advances made by the Group.

## Note 12. Trade debtors and other accounts receivable

Details of trade and other receivables of the Group as of the reporting period are as follows:

| Trade debtors and other accounts receivable | 2017             | 2016             |
|---------------------------------------------|------------------|------------------|
| <b>Non-current</b>                          |                  |                  |
| Debtors public services                     | 344.330          | 318.060          |
| Impairment of public services               | (102.530)        | (72.672)         |
| Employee loans                              | 100.261          | 75.924           |
| Other receivables                           | 538.116          | 496.227          |
| Impairment other debtors                    | (5.426)          | (1.411)          |
| <b>Total non-current</b>                    | <b>874.751</b>   | <b>816.128</b>   |
| <b>Current</b>                              |                  |                  |
| Debtors public services                     | 2.509.278        | 2.284.095        |
| Impairment of public services               | (372.212)        | (358.812)        |
| Employee loans                              | 41.975           | 36.517           |
| Impairment of employee loans                | (286)            | (136)            |
| Construction contracts                      | 434              | (308)            |
| Other receivables                           | 692.743          | 658.179          |
| Impairment other debtors                    | (119.020)        | (97.399)         |
| <b>Total current</b>                        | <b>2.752.912</b> | <b>2.522.136</b> |
| <b>Total</b>                                | <b>3.627.663</b> | <b>3.338.264</b> |

- Amounts expressed in millions of Colombian pesos -

The increase in the non-current receivables balance is due mainly to variations in the accounts receivable associated to the Contracts for the management of public utilities in the Affiliate TICSА and to the increase in accounts receivable of public utilities of electric power in the national affiliates.

The increase in the current receivables balance is caused mainly in the debtors of the public service of energy of the Parent Company and the affiliates EEGSA and ENSA.

Accounts receivable from debtors of public utilities are concentrated 55% in EPM. For the Parent Company these do not generate any interest and the term for their collection is, generally 10 days after the invoice is generated. The individual contracts with large customers or from the energetic sector contemplate terms agreed in specific negotiations. In the latter case the term is generally 30 days.

### Impairment of receivables

The Group measures the correction of value for expected losses during the life of the asset using the simplified approach, which consists in taking the current value of the credit losses that arise from all events of "default" possible at any time during the life of the operation.

This alternative is taken given that the volume of customers handled by the Group is very high and the measurement and risk control by phases may entail errors and an undervaluation of the impairment.

The model of expected loss corresponds to a forecast tool that projects the probability of default (non payment) in a period of one year. Each obligation is assigned an individual probability of no payment that is calculated based on a probability model that involves sociodemographic variables, of the product and of behavior.

At the cut-off date, the seniority analysis of accounts receivable at the end of the reporting period over the which is informed that are impaired is:

|                                      | 2017                  |                                                   | 2016                  |                                                   |
|--------------------------------------|-----------------------|---------------------------------------------------|-----------------------|---------------------------------------------------|
|                                      | Gross Carrying Amount | Value expected credit losses during the life time | Gross Carrying Amount | Value expected credit losses during the life time |
| <b>Debtors public services</b>       |                       |                                                   |                       |                                                   |
| Not past due nor impaired            | 1.754.438             | (101.452)                                         | 1.918.847             | (66.172)                                          |
| Less than 30 days                    | 453.215               | (10.584)                                          | 241.538               | (21.280)                                          |
| 30-60 days                           | 133.029               | (4.445)                                           | 70.411                | (18.337)                                          |
| 61-90 days                           | 34.823                | (4.722)                                           | 20.746                | (4.635)                                           |
| 91-120 days                          | 22.051                | (4.210)                                           | 15.966                | (21.599)                                          |
| 121-180 days                         | 25.420                | (7.004)                                           | 20.616                | (10.187)                                          |
| 181-360 days                         | 109.564               | (21.257)                                          | 31.348                | (23.548)                                          |
| Greater than 360 days                | 321.068               | (321.068)                                         | 282.683               | (265.726)                                         |
| <b>Total debtors public services</b> | <b>2.853.608</b>      | <b>(474.742)</b>                                  | <b>2.602.155</b>      | <b>(431.484)</b>                                  |
| <b>Other debtors</b>                 |                       |                                                   |                       |                                                   |
| Current                              | 988.427               | (11.580)                                          | 1.089.140             | (3.873)                                           |
| Less than 30 days                    | 32.192                | (2.820)                                           | 17.834                | (1.697)                                           |
| 30-60 days                           | 146.970               | (13.217)                                          | 9.649                 | (2.774)                                           |
| 61-90 days                           | 7.255                 | (1.072)                                           | 3.559                 | (2.042)                                           |
| 91-120 days                          | 3.456                 | (870)                                             | 5.496                 | (3.631)                                           |
| 121-180 days                         | 3.389                 | (2.320)                                           | 13.541                | (11.361)                                          |
| 181-360 days                         | 57.143                | (9.189)                                           | 43.974                | (32.287)                                          |
| Greater than 360 days                | 134.697               | (83.664)                                          | 82.796                | (41.280)                                          |
| <b>Total other debtors</b>           | <b>1.373.529</b>      | <b>(124.732)</b>                                  | <b>1.265.989</b>      | <b>(98.945)</b>                                   |
| <b>Total debtors</b>                 | <b>4.227.137</b>      | <b>(599.474)</b>                                  | <b>3.868.144</b>      | <b>(530.429)</b>                                  |

Amounts expressed in millions of Colombian pesos -

The provision variation of the EPM Group amounts to \$69,046 and is explained mainly by:

- Increases of current receivables of the energy service and their respective impairment in the Affiliate ENSA that represented a variation of the provision for \$22,875 measured under the methodology of expected loss.
- Increase of \$15,652 in the Affiliate TICSA adjusted by the growth of the new accounts receivable impaired under the expected loss methodology according to the policies of the EPM Group.
- Variation for \$9,303 in Social Financing (Somos card) generated by adjustments of the provision model under expected loss.
- Growth of the provision by \$7,376 mainly by the recognition at 100% of the provision of balances due related to Prepayment Energy.
- Increase by \$6,996 in the provision of EPM Parent explained mainly by the subscription of customers to the different prepayment products of domiciliary public utilities.

The reconciliation of expected credit losses of the portfolio is the following:

|                                                                                                 | Credit losses expected during the life of the asset (collectively assessed) | Credit losses expected during the life of the asset (individually assessed) | Financial assets with credit impairment (credit losses expected during the life time of the asset) |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Value correction at the beginning of the period                                                 | (317.907)                                                                   | (212.522)                                                                   | (530.429)                                                                                          |
| Changes in the impairment of accounts receivable that existed at the beginning of the period(1) | (59.991)                                                                    | (19.812)                                                                    | (79.803)                                                                                           |
| Financial assets that have been derecognized during the period                                  | 2.803                                                                       | 3.826                                                                       | 6.629                                                                                              |
| New financial assets originated or purchased <sup>(1)</sup>                                     | (3.921)                                                                     | (25.508)                                                                    | (29.429)                                                                                           |
| Cancellations                                                                                   | (1.186)                                                                     | 32.835                                                                      | 31.649                                                                                             |
| Changes in risk models /parameters                                                              | (514)                                                                       | (3.681)                                                                     | (4.195)                                                                                            |
| Exchange difference and other movements                                                         | (12.792)                                                                    | 18.896                                                                      | 6.104                                                                                              |
| <b>Ending balance</b>                                                                           | <b>(393.508)</b>                                                            | <b>(205.966)</b>                                                            | <b>(599.474)</b>                                                                                   |

- Amount expressed in millions of Colombian pesos -

- (1) The impairment of the period of accounts receivable for \$ 109,232 is mainly originated by EPM Matrix in a 34%, ENSA Panama 21%, energy subsidiaries CHEC, CENS and ESSA together with 18%, Social Funding 11% and TICSA the 10% The other subsidiaries generate the remaining 6%.

The reconciliation is as follows:

|                                                                                               | Credit losses expected during the life of the asset (collectively assessed) | Credit losses expected during the life of the asset (individually assessed) | Financial assets with credit impairment (credit losses expected during the life time of the asset) |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Beginning balance of financial assets                                                         | 1.689.451                                                                   | 2.179.243                                                                   | 3.868.694                                                                                          |
| Collective financial assets transferred to individual financial assets with credit impairment | (13.205)                                                                    | 13.205                                                                      | -                                                                                                  |
| New financial assets originated or purchased                                                  | 8.784.003                                                                   | 8.286.037                                                                   | 17.070.040                                                                                         |
| Cancellations of financial assets                                                             | (8.682.939)                                                                 | (7.935.313)                                                                 | (16.618.252)                                                                                       |
| Financial assets that have been derecognized in accounts                                      | 40.233                                                                      | 40.226                                                                      | 80.459                                                                                             |
| Changes due to modifications that did not give rise to derecognition in accounts              | (27.718)                                                                    | -                                                                           | (27.718)                                                                                           |
| Other changes                                                                                 | (152.901)                                                                   | 6.815                                                                       | (146.086)                                                                                          |
| <b>Ending balance</b>                                                                         | <b>1.636.924</b>                                                            | <b>2.590.213</b>                                                            | <b>4.227.137</b>                                                                                   |

- Amount expressed in millions of Colombian pesos -

The group writes off, against the impairment recognized in a corrector account, the values of the impaired financial assets when:

- The accounts receivable recorded do not present certain rights, goods or obligations by the entity.
- The rights or obligations lack documents and proper support that permit to carry out the relevant procedures for their collection or payment.
- It is not possible to make the collection of the right or obligation, by summary or judicial jurisdiction.
- It is not possible to attribute the value of the receivables to any person, natural or legal.
- Assessed and established
- Upon assessment and establishment of the cost-benefit, it is more onerous to carry out the collection process than the value of the obligation.

The receivables write-off is approved by areas and government committees defined within the frame of government of each one of the affiliates.

## Note 13. Other financial assets

The detail of other financial assets at the end of the period is:

| Other financial assets                                                                               | 2017             | 2016             |
|------------------------------------------------------------------------------------------------------|------------------|------------------|
| <b>Non-current</b>                                                                                   |                  |                  |
| <b>Derivatives designated as hedging instruments under hedge accounting</b>                          |                  |                  |
| Swap Agreements                                                                                      | 19.445           | 5.252            |
| <b>Total derivatives designated as hedging instruments under hedge accounting</b>                    | <b>19.445</b>    | <b>5.252</b>     |
| <b>Financial assets measured at fair value through profit or loss for the period</b>                 |                  |                  |
| Fixed income securities                                                                              | 1.481            | 1.325            |
| Variable income securities                                                                           | 61.481           | 43.798           |
| Fiduciary rights                                                                                     | 381.692          | 381.781          |
| <b>Total assets measured at fair value through profit or loss for the period</b>                     | <b>444.654</b>   | <b>426.904</b>   |
| <b>Financial assets designated at fair value through changes in other comprehensive income</b>       |                  |                  |
| Equity instruments (1)                                                                               | 1.636.781        | 1.161.578        |
| <b>Total financial assets designated at fair value through changes in other comprehensive income</b> | <b>1.636.781</b> | <b>1.161.578</b> |
| <b>Financial assets measured at amortized cost</b>                                                   |                  |                  |
| Fixed income securities                                                                              | 4.902            | 7.201            |
| <b>Total financial assets measured at amortized cost</b>                                             | <b>4.902</b>     | <b>7.201</b>     |
| Financial leasing                                                                                    | -                | 1.560            |
| <b>Total other non-current financial assets</b>                                                      | <b>2.105.782</b> | <b>1.602.495</b> |
| <b>Current</b>                                                                                       |                  |                  |
| <b>Derivatives designated as hedging instruments under hedge accounting</b>                          |                  |                  |
| Futures contracts                                                                                    | 97               | 18               |
| <b>Total derivatives designated as hedging instruments under hedge accounting</b>                    | <b>97</b>        | <b>18</b>        |
| <b>Financial assets measured at fair value through profit or loss for the period</b>                 |                  |                  |
| Fixed income securities                                                                              | 236.946          | 657.426          |
| Pledged investments                                                                                  | 5.435            | 9.184            |
| Investments received as collateral                                                                   | -                | 642              |
| Fiduciary rights                                                                                     | 4.962            | 4.824            |
| <b>Total financial assets measured at fair value through profit or loss</b>                          | <b>247.343</b>   | <b>672.076</b>   |
| <b>Financial assets measured at amortized cost</b>                                                   |                  |                  |
| Fixed income securities                                                                              | 16.354           | 83.484           |
| Pledged investments                                                                                  | 126              | 126              |
| <b>Total financial assets measured at amortized cost</b>                                             | <b>16.480</b>    | <b>83.610</b>    |
| Financial leasing                                                                                    | 2.018            | 2.390            |
| <b>Total other current assets</b>                                                                    | <b>265.938</b>   | <b>758.094</b>   |
| <b>Total other assets</b>                                                                            | <b>2.371.720</b> | <b>2.360.589</b> |

*Amounts expressed in millions of Colombian pesos -*

Conventional purchases and sales of financial assets are accounted for by applying the negotiation date.

(1) **Financial assets designated at fair value through the other comprehensive income:**

The detail of equity investments designated at fair value through the other comprehensive income is as follows:

| Equity Investment                                                                                          | 2017             | 2016             |
|------------------------------------------------------------------------------------------------------------|------------------|------------------|
| Interconexión Eléctrica S.A. E.S.P. <sup>(1)</sup>                                                         | 1.598.999        | 1.123.803        |
| Gasorient S.A.                                                                                             | 18.224           | 18.224           |
| Promioriente S.A. E.S.P.                                                                                   | 11.459           | 11.459           |
| Reforestadora Industrial de Antioquia S.A.                                                                 | 4.947            | 4.947            |
| Electrificadora del Caribe S.A. E.S.P.                                                                     | 1.404            | 1.399            |
| Gensa S.A. E.S.P.                                                                                          | 608              | 607              |
| Terminal de Transportes de Bucaramanga S.A.                                                                | 142              | 142              |
| Comantrac S.A.                                                                                             | 18               | 18               |
| Others <sup>(2)</sup>                                                                                      | 980              | 979              |
| <b>Total</b>                                                                                               | <b>1.636.781</b> | <b>1.161.578</b> |
| Dividends recognized during the period related to investments that are recognized at the end of the period | 49.764           | 35.107           |
| <b>Dividends recognized during the period</b>                                                              | <b>49.764</b>    | <b>35.107</b>    |

Amounts expressed in millions of Colombian pesos -

- (1) As of December 31, 2017, the stock price of Interconexión Eléctrica S.A. E.S.P. closed at \$ 14,200 pesos (2016 \$ 9,980 pesos).
- (2) Includes investments in: Organización Terpel S.A., Concentra Inteligencia en Energía S.A.S., Banco Davivienda S.A., Compañía de Alumbrado Eléctrico de San Salvador S.A., Duke Energy Guatemala y Cia. S.A., Fosfonorte S.A., Central de Abastos de Cúcuta, Hotel Turismo Juana Naranjo, Sin Escombros S.A.S. (Sinesco), Acerías Paz del Río S.A., Cenfer S.A., Unidad de Transacciones S.A. de C.V.

Equity investments indicated in the preceding table are not maintained for negotiation purposes, instead, they are maintained with strategic medium and long term purposes. The Administration of the EPM Group considers that this classification for these strategic investments provides more reliable financial information that reflects immediately the changes in their fair value in profit and loss.

## Note 14. Leases

### 14.1 Financial leases as a lessor

At the cut-off date, the Group, as lessor, does not have financial leasing contracts, at the end of 2016, the most significant agreement was the lease of the storage tank located in Termobarranca. The contingent quotas were determined based on the Market Representative Rate (TRM, for its initials in Spanish). Once the term of the 10-year contract has expired, it will be renewed automatically for annual periods, unless one of the parties expresses its wish of not doing so; The agreement does not include a purchase option and the lessee is Technologicals.

At the cut-off date, the minimum future payments and the present value of the minimum payments for financial leasing are distributed as follows:

| Financial leasing                              | 2017                      |                                   | 2016                      |                                   |
|------------------------------------------------|---------------------------|-----------------------------------|---------------------------|-----------------------------------|
|                                                | Gross Carrying Investment | Present Value of Minimum payments | Gross Carrying Investment | Present Value of Minimum payments |
| One year                                       | -                         | -                                 | 1.101                     | 12                                |
| More than one year and up to five years        | -                         | -                                 | 5.506                     | 672                               |
| More than five years                           | -                         | -                                 | 1.340                     | 888                               |
| <b>Total leases</b>                            | -                         | -                                 | <b>7.947</b>              | <b>1.572</b>                      |
| Less - value of unearned interest              | -                         | -                                 | (6.375)                   | -                                 |
| <b>Present value of minimum lease payments</b> | -                         | -                                 | <b>1.572</b>              | <b>1.572</b>                      |

- Amounts expressed in millions of Colombian pesos -

The Group has not recognized any provision for accumulated uncollectibility of the minimum payments of the lease receivable from financial leases or residual values not guaranteed in financial leases.

The Group as a lessor does not have contracts that adopt the legal form of a lease and that essentially do not constitute it.

#### 14.2. Financial leasing as a lessee

At the cut-off date, the carrying amount of property, plant and equipment under financial leasing is as follows:

| 2017                     | Land and buildings | Computer and communication equipment | Machinery and equipment | Total assets   |
|--------------------------|--------------------|--------------------------------------|-------------------------|----------------|
| Cost                     | 200.057            | 2.380                                | 2.064                   | 204.501        |
| Accumulated depreciation | (69.601)           | (1.466)                              | (1.077)                 | (72.144)       |
| <b>Total</b>             | <b>130.456</b>     | <b>914</b>                           | <b>987</b>              | <b>132.357</b> |

- Amounts expressed in millions of Colombian pesos -

| 2016                     | Land and buildings | Computer and communication equipment | Machinery and equipment | Total assets   |
|--------------------------|--------------------|--------------------------------------|-------------------------|----------------|
| Cost                     | 223.369            | 2.380                                | 2.063                   | 227.811        |
| Accumulated depreciation | (66.857)           | (1.375)                              | (1.011)                 | (69.243)       |
| <b>Total</b>             | <b>156.512</b>     | <b>1.005</b>                         | <b>1.052</b>            | <b>158.569</b> |

- Amounts expressed in million of Colombian pesos -

The most significant financial lease agreement is the building called "Edificio Empresas Públicas de Medellín". The agreement has a duration of 50 years counted from December 2001, renewable automatically for an equal term if neither party expresses otherwise. The value of the fee is \$ 1,500 per month, which will be readjusted each year by the Consumer Price Index (CPI).

At the cut-off date, the minimum future payments and the present value of the minimum payments for financial lease are distributed as follows:

| Financial lease                                | 2017                      |                                   | 2016                      |                                   |
|------------------------------------------------|---------------------------|-----------------------------------|---------------------------|-----------------------------------|
|                                                | Gross Carrying Investment | Present Value of Minimum payments | Gross Carrying Investment | Present Value of Minimum payments |
| One year                                       | -                         | -                                 | 1.101                     | 12                                |
| More than one year and up to five years        | -                         | -                                 | 5.506                     | 672                               |
| More than five years                           | -                         | -                                 | 1.340                     | 888                               |
| <b>Total leases</b>                            | -                         | -                                 | <b>7.947</b>              | <b>1.572</b>                      |
| Less - value of unearned interest              | -                         | -                                 | (6.375)                   | -                                 |
| <b>Present value of minimum lease payments</b> | -                         | -                                 | <b>1.572</b>              | <b>1.572</b>                      |

- Amounts expressed in millions of Colombian pesos -

The expense for contingent leases of financial leases recognized in profit or loss for the period is \$ 18,692 (2016: \$ 16,407).

#### 14.3 Operating leases as Lessor

The most significant operating leasing agreements are of the electrical infrastructure for the installation of telecommunications networks, poles, premises and offices. The contingent installments of these leases



are determined based on the update of PPI or CPI variable as well as the update of the rent lease payments. Leasing agreements contemplate the option to be renewed by mutual agreement between the parties and not do contemplate the purchase option.

As of the date of the report, the future non-cancellable minimum future operating lease payments are as follows:

| Leasings                                                           | 2017                            | 2016                            |
|--------------------------------------------------------------------|---------------------------------|---------------------------------|
|                                                                    | Non-cancelable operating leases | Non-cancelable operating leases |
| One year                                                           | 62.527                          | 41.765                          |
| More than a year and up to five years                              | 31.729                          | 15.976                          |
| More than five years                                               | 24.362                          | 14.151                          |
| <b>Total leases</b>                                                | <b>118.618</b>                  | <b>71.892</b>                   |
| Less - value of unearned financial income                          | -                               | (6.375)                         |
| <b>Present value of minimum payments for leases to be received</b> | <b>118.618</b>                  | <b>65.517</b>                   |

*Amounts expressed in millions of Colombian pesos*

The Group as a lessor does not have contracts that adopt the legal form of a lease and that essentially do not constitute it.

#### 14.4 Operating Leases as lessee

The most significant operating leases are premises for the customer service offices, spaces for facilities and operation of antennas in the meteorological stations, office automation filters and accessories, user printing infrastructure, equipment for virtual meetings, among others, which have no restrictions and leasing of vehicles required in the company's operating activities. The agreements contemplate renewal by mutual agreement between the parties and do not contemplate the purchase option. In general, the lease payments of the agreement are updated by the Consumer Price Index -CPI-.

As of the report date the future minimum payments for operating leasing, not cancellable, are distributed as follows:

| Leasings                              | 2017                            | 2016                            |
|---------------------------------------|---------------------------------|---------------------------------|
|                                       | Non-cancelable operating leases | Non-cancelable operating leases |
| One year                              | 19.169                          | 28.004                          |
| More than a year and up to five years | 28.699                          | 65.208                          |
| More than five years                  | 1.537                           | 44.841                          |
| <b>Total leasings</b>                 | <b>49.405</b>                   | <b>138.053</b>                  |

*Amounts expressed in millions of Colombian pesos*

The total minimum future payments for subleasing non-cancellable of assets acquired under operating leasing is \$18 (2016: \$11). The contingent leasing expense recognized in the profit and loss of the period is \$133, (2016: \$18).

The Group as lessor, does not have contracts that adopt the legal form of a lease and that in essence do not constitute one.

## Note 15. Guarantee

The Group has granted the following financial assets in guarantee:

Certificate of deposit - CD, which book value is \$133 (2016: \$133). The conditions for the use of the guarantee are to cover contingencies for litigation processes against the Municipality of Bucaramanga by the affiliate ESSA S.A. This guarantee is created and granted to Seguros del Estado.

Premium retained for \$1,621 (2016: \$1,354) to the affiliate Maxseguros by the assigning insurance company, in accordance with Colombian regulations.

The Group has received in guarantee from the affiliate Maxseguros the premium retained to the reinsurer companies for \$1,621 (\$2016: \$1,354).

The Group has not received guarantees as of December 31, 2017 and 2016, in which it is authorized to sell them or encumber them without the occurrence of a nonfulfillment by the owner of the guarantee.

## Note 16. Other assets

The detail of other assets at the end of the reporting periods is the following:

| Item                                                            | 2017           | 2016           |
|-----------------------------------------------------------------|----------------|----------------|
| <b>Non current</b>                                              |                |                |
| Employee benefits <sup>(1)</sup>                                | 48.888         | 35.217         |
| Payments made in advance <sup>(2)</sup>                         | 32.052         | 42.892         |
| Deferred loss by operation of lease back <sup>(3)</sup>         | 22.958         | 23.634         |
| Advances delivered to suppliers <sup>(4)</sup>                  | 10.246         | 757            |
| Goods received in payment                                       | 1.462          | 1.286          |
| Other advances or balances in favor for taxes and contributions | (25)           | -              |
| <b>Total other non current assets</b>                           | <b>115.581</b> | <b>103.786</b> |
| <b>Current</b>                                                  |                |                |
| Reinsurance activities <sup>(5)</sup>                           | 159.275        | -              |
| Sales tax                                                       | 82.960         | 71.883         |
| Payments made in advance <sup>(2)</sup>                         | 79.903         | 71.515         |
| Advances delivered to suppliers <sup>(4)</sup>                  | 63.067         | 47.013         |
| Other balances in favor for other taxes                         | 1.521          | 13.520         |
| Industry and commerce tax advance                               | 1.270          | 12             |
| Special contribution advance                                    | 354            | -              |
| Other advances or balances in favor for taxes and contributions | 204            | 8.519          |
| Employee benefits <sup>(1)</sup>                                | 7              | 32             |
| Industry and commerce tax withheld                              | -              | 828            |
| <b>Total other current assets</b>                               | <b>388.561</b> | <b>213.322</b> |
| <b>Total other assets</b>                                       | <b>504.142</b> | <b>317.108</b> |

- Amount expressed in millions of Colombian pesos -

(1) It corresponds to the value recognized corresponding to credits granted to the employees of the Group at rate lower than those of the market.

(2) Includes mainly, in the non-current portion, the payments made in advanced by EPM for the concept of all-risk insurance policies of the Ituango Hydroelectric project for \$15,141 (2016: \$24,550), and extra contractual civil liability for \$ 228 (2016: \$ 418), both valid until March 15, 2020, which are being amortized. It also includes the premium in legal stability contracts for \$ 9,141 (2016: \$ 10,033) and leases for \$ 1,310 (2016: \$ 1,359).

In the current portion includes mainly the value of the insurance policies of EPM, consisting of all risk policies for \$27,405 (2016: \$27,271), of which \$9,459 (2016: \$9,496) is from the Ituango Hydroelectric Project, and other insurance for \$19,577 (2016: \$17,099) of which \$13,414 (2016: \$14,866) relates to

climate change insurance and advance payments for software support and maintenance and other services for \$8,425 (2016: \$9,131).

- (3) See detail of financial leasing agreements in note 23 other financial liabilities.
- (4) As at December 31, 2017, it includes mainly in the non-current portion, the resources delivered in administration by EPM, mainly for the agreements with: Empresa de Desarrollo Urbano - EDU for \$6,893, Corporación Parque Arví for \$1,152 and Fundación EPM for \$1,049.

In the current portion it includes mainly advances delivered by EPM for goods and services for \$34,819 (2016: \$33,840) mainly to: Chevron Petroleum Company for \$18,540 (2016: \$14,070) and Ecopetrol for \$11,256 (2016: \$12,996); and resources delivered in administration for \$10,136, basically for the agreements with: Cuenca Verde for \$4,920, with Metro of Medellin for \$1,200 and the Museum of Antioquia for \$1,053.

- (5) As at December 31, 2017, the detail of technical reserves payable by reinsurers is the following:

| Item                                        |                |
|---------------------------------------------|----------------|
| Reserves of losses receivable               | 92.550         |
| Reserves of recoverable losses not reported | 32.170         |
| Deferred premium - reinsurer part           | 32.935         |
| Funds withheld                              | 1.620          |
| <b>Total</b>                                | <b>159.275</b> |

- Amount expressed in millions of Colombian pesos -

## Note 17. Inventories

Inventories at the end of the period were represented as follows:

| Inventories                                            | 2017           | 2016           |
|--------------------------------------------------------|----------------|----------------|
| Materials for the rendering of services <sup>(1)</sup> | 356.531        | 378.343        |
| Merchandise in stock <sup>(2)</sup>                    | 14.050         | 14.687         |
| Goods in transit                                       | 1.659          | 831            |
| <b>Total inventories</b>                               | <b>372.240</b> | <b>393.861</b> |

Amounts expressed in millions of Colombian pesos -

- (1) Includes the materials for the rendering of services held by third parties. That are those delivered to contractors performing activities related to the provision of services.
- (2) Includes merchandise in stock that does not require transformation, such as power, gas and water meters, communication equipment, telephones and Supply goods, as well as those held by third parties.

Inventories were recognized for \$190,252 (2016: \$221,813) as cost of goods sold for the rendering of the service during the period. The inventory write-downs recognized as expense during the period ascended to \$905 (2016: \$1,609) and the reversals of write-downs were for \$- (2016: \$468). As of December 31, 2017 and 2016 no costs or expenses were recognized for impairment or obsolescence of the items in inventories.

At December 31, 2017, the Group has committed inventories to guarantee liabilities.

## Note 18. Cash and cash equivalents

The composition of cash and cash equivalents at the end of the period is as follows:

| Cash and cash equivalents                                                              | 2017             | 2016             |
|----------------------------------------------------------------------------------------|------------------|------------------|
| Cash on hand and in banks                                                              | 848.828          | 874.277          |
| Other cash equivalents <sup>(1)</sup>                                                  | 342.386          | 320.222          |
| <b>Total cash and cash equivalents reported in the statement of financial position</b> | <b>1.191.214</b> | <b>1.194.499</b> |
| <b>Cash and cash equivalents reported in the statement of cash flows</b>               | <b>1.191.214</b> | <b>1.194.499</b> |
| <b>Restricted cash</b>                                                                 | <b>183.610</b>   | <b>186.147</b>   |

Amounts expressed in millions of Colombian pesos -

<sup>(1)</sup> Includes funds in \$1,885 (2016: \$7,820), funds of restricted use \$183,610 (2016: \$186,147) and cash equivalents \$156,891 (2016: \$126,255).

Treasury investments expire in a term equal or lower than three months from their acquisition date and earn market interest rates for this type of investments.

The Group has restrictions on cash and cash equivalents at fair value as of December 31, 2017 \$183,610 (2016: \$186,147).

| Fund or Agreement                                                 | Destination                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2017   | 2016   |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|
| Bogota river parks agreement                                      | Transfer of public utility networks for the performance of the project called Rio Medellin Parks.                                                                                                                                                                                                                                                                                                                                                                                                                  | 22.373 | 26.521 |
| Sintraemdes Housing Fund                                          | Contributing to the acquisition of homes and the improvement thereof, of employees beneficiaries of the labor agreement executed between EPM with the unions.                                                                                                                                                                                                                                                                                                                                                      | 20.410 | 16.426 |
| Sinpro Housing Fund                                               | Contributing to the acquisition of homes and the improvement thereof, of employees beneficiaries of the labor agreement executed between EPM with the unions.                                                                                                                                                                                                                                                                                                                                                      | 17.525 | 10.675 |
| International energy transactions                                 | Guarantee corresponding to the "compensation" that must be made between the invoice of energy pool transactions and the advance payments, seeking that the actual payment be made to XM.                                                                                                                                                                                                                                                                                                                           | 10.721 | 10.907 |
| Banco Bogota INCODER                                              | Join efforts and resources between EPM and INCODER to carry out the project "feasibility study for the construction of the irrigation and drainage district in part of the region of Uraba of Antioquia" with multipurpose scope.                                                                                                                                                                                                                                                                                  | 9.989  | 11.194 |
| Bogota Bolivar Promenade                                          | Adapting carrera 51 (Bolivar) between 44 street (San Juan) and 57 street (La Paz) and convert that road segment in what will be called the Bolivar Promenade.                                                                                                                                                                                                                                                                                                                                                      | 7.102  | 16.167 |
| Ministry of Mines and Energy - Special Promotion Installment Fund | Co-financing agreement for the construction, distribution infrastructure and connection to lower income users in the municipalities of Amaga, Santafe de Antioquia, Sopetran, San Jeronimo AND Ciudad Bolívar. Compressed Natural Gas and connection to users of Don Matias, Entrerrios, San Pedro, Santa Rosa and Yarumal. Agreement No 106: construction of the connection infrastructure to users of the Valley of Aburra, La Ceja, La Union and El Retiro. Agreement 179: includes the municipality of Sonson. | 5.245  | 5.003  |

- Amount expressed in millions of Colombian pesos -

| Fund or Agreement                                                             | Destination                                                                                                                                                                                                                                                                                                           | 2017  | 2016  |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|
| Agreement with municipalities on rates of public lighting and public cleaning | Agreement to manage the resources of the territorial entities for the payment to the municipalities with agreements for collection of public lighting and public cleaning rates; these are resources exempt from the tax on financial transactions.                                                                   | 3.308 | 676   |
| Municipalities of Guatapé and Cornare                                         | Joint efforts for the improvement of the technical, economic and social conditions for the performance of phase 1 of the project for improvement of the environmental and landscaping infrastructure of the San Juan del Puerto Esplanade, for the development of sustainable tourism in the Municipality of Guatapé. | 2.334 | 2.213 |
| Sinpro Education Fund                                                         | Promoting the wellbeing of employees to meet the needs of the payment of registration fees, books and supplies that are required to pursue their own studies and those of the family group.                                                                                                                           | 2.140 | 1.956 |
| Autonomous Corporation of Guatapé                                             | Join efforts for the improvement of the technical, economic and social conditions for the performance of phase 1 of the project for improvement of the environmental and landscaping infrastructure of the San Juan del Puerto Esplanade, for the development of sustainable tourism in the Municipality of Guatapé.  | 2.110 | 2.011 |
| Sintraemdes Education Fund                                                    | Promoting the wellbeing of employees to meet the needs of the payment of registration fees, books and supplies that are required to pursue their own studies and those of the family group.                                                                                                                           | 2.010 | 1.905 |
| Adapted Health Entity Fund and Fosyga Fund                                    | Control and follow up mechanism of the collection of contributions to the Contributive Regime of the General Social Security in Health System.                                                                                                                                                                        | 1.610 | 5.480 |
| Sintraemdes Disaster Fund                                                     | Promoting the wellbeing of employees to meet their urgent and unforeseen needs or those of their primary family group.                                                                                                                                                                                                | 1.551 | 1.454 |
| SOMOS point agreement                                                         | Rendering of services for the operation of the key capacities associated to the element Points of the Large Scale Loyalty Program for the EPM Group.                                                                                                                                                                  | 1.522 | 577   |
| Sinpro Disaster Fund                                                          | Promoting the wellbeing of employees to meet their urgent and unforeseen needs or those of their primary family group.                                                                                                                                                                                                | 1.293 | 1.131 |
| Aldeas Program                                                                | Make use of the wood that completes its aging cycle in the forests planted by EPM around its dams, to construct social interest housing in the municipalities of Antioquia outside the Aburra Valley and deliver them to low income families, preferably in a situation of forced or voluntary displacement.          | 1.165 | 1.105 |
| Municipality of Medellín - Water                                              | Integral management of water for human consumption of the inhabitants of the municipality of Medellín.                                                                                                                                                                                                                | 879   | 3.124 |
| Ministry of Mines and Energy                                                  | Contributions by the Ministry of Mines and Energy in accordance with the provisions of contract FAER GGC 430 of 2015 intended to rural electrification works in the municipality of Ituango.                                                                                                                          | 643   | 643   |

- Amount expressed in millions of Colombian pesos -

| Fund or Agreement                                                                         | Destination                                                                                                                                                                                                                                                                         | 2017 | 2016  |
|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|
| Governor's Office Subsidies 2016                                                          | Administrating the resources for the subsidy of the connections of lower income users in the department of Antioquia.                                                                                                                                                               | 526  | -     |
| Motorcycle repair fund                                                                    | Promoting the wellbeing of official workers who act in the regional market and use motorcycles owned by them for the performance of their duties.                                                                                                                                   | 381  | 349   |
| Inter-administration agreement on Plaza del Tomatero in the Municipality of El Peñol      | Joint efforts for the improvement of technical, economic, environmental and social conditions in order to dynamize development and offset the impact that the reduction of the Peñol-Guatape dam levels generates for the municipality of El Peñol.                                 | 369  | 1.052 |
| Montreal Protocol multilateral fund                                                       | Cooperation agreement with the Ministry of Environment and Sustainable Development for the performance of activities within the framework of the implementation in Colombia of the Montreal Protocol.                                                                               | 249  | 298   |
| Municipality of Caldas                                                                    | Managing and administrating the resources intended by the Municipality of Caldas to the performance of the project: Construction, replacement and modernization of water supply and sewage networks and their complementary works, in the urban zone of the Municipality of Caldas. | 168  | 163   |
| Thermal District                                                                          | Agreement with the Ministry of Environment and Sustainable Development for the performance of activities of the Thermal District La Alpujarra.                                                                                                                                      | 167  | 282   |
| IADB Credit 2120                                                                          | Disbursement for the construction of the Bello waste waster treatment plan (PTAR).                                                                                                                                                                                                  | 166  | 167   |
| Municipality of Barbosa - Subsidies                                                       | Agreement to subsidize partially the connection of users from 1 and 2 strata.                                                                                                                                                                                                       | 59   | 56    |
| Espíritu Santo                                                                            | EPM - Espiritu Santo Liquidation                                                                                                                                                                                                                                                    | 58   | 56    |
| Municipality of Medellin - Land                                                           | Acquisition of property identified and characterized within the water basins that supply the water supply systems in the Municipality of Medellin.                                                                                                                                  | 56   | 53    |
| Deposits Law 820                                                                          | Guarantee required by the lessor from the lessee, for the payment of utilities. As per Article 15 of Law 820 of 2003 and Regulatory Decree 3130 of 2003.                                                                                                                            | 53   | 53    |
| Master Agreement Municipality of Medellin No. 4600049285                                  | Construction by EPM of sidewalks and other roadside elements in the center of the city, capitalizing on the Centro Parilla project, that is, the renewal of the water supply and sewage networks.                                                                                   | 37   | 7.677 |
| Green Basin                                                                               | Administering the resources assigned for the achievement of the objectives of the Corporación Cuenca Verde.                                                                                                                                                                         | 13   | 32    |
| Department of Antioquia, Agreement for construction El Aro - Municipality of Ituango Road | Administering the resources contributed by the Antioquia Governor's Office to co-finance the construction of the Road El Aro - Connection Via Puerto Valdivia, Location of the Dam - Municipality of Ituango.                                                                       | 7    | 5     |

- Amount expressed in millions of Colombian pesos -

| Fund or Agreement                             | Destination                                                                                                                                                                                     | 2017           | 2016           |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|
| Municipality of Itagüi Agreement Ajizal Sewer | Managing and administering los resources assigned by the Municipality of Itagüi to the construction of the works of stabilization of the bed of the El Sesteadero Stream for the Ajizal Sewer . | 5              | 356            |
| Municipality of Medellín - Moravia            | Construction, repair and replacement of the water supply and sewage networks and paving in the Municipality of Medellín of the roads affected by these works in the Moravia neighborhood.       | 3              | 3              |
| IDEA Agreement 4600003912                     | Inter-administration agreement to join efforts for the design and construction of the electric power generation and distribution in rural zones in the department of Antioquia.                 | 2              | 2              |
| IDEA Agreement 4600003283                     | Joining efforts for the construction of gas home intake connection in the different regions of the Department of Antioquia under the framework of the "Gas without Borders" program.            | 1              | 1              |
| National Royalties Fund - Gas                 | Construction of the compressed natural gas distribution infrastructure and subsidies for the connection to the users of 1 and 2 strata of the municipalities of El Peñol and Guatapé.           | -              | 281            |
| UVA Poblado Agreement 037000657546            | Support the Municipality of Medellín for the construction of the UVA (Articulated Road Unit), Poblado sector.                                                                                   | -              | 5              |
| <b>Total restricted resources</b>             |                                                                                                                                                                                                 | <b>116.250</b> | <b>130.059</b> |

- Figures in millions of Colombian pesos -

| EDEQ restricted resources              |                                                                                                                                                                    |              |              |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| Fund or Agreement                      | Destination                                                                                                                                                        | 2017         | 2016         |
| Housing Fund                           | Resources intended to the improvement of the quality of life of the workers through the concession of credits intended to the purchase and improvement of housing. | 2.104        | 2.577        |
| Social wellbeing and training fund     | Resources intended to facilitate to the workers and their families their access to higher education, health, wellbeing and recreation.                             | 175          | 128          |
| Motorcycle Fund                        | Resources intended to facilitate to the workers loans to acquire and carry out the replacement of motorcycles intended to the fulfillment of their duties.         | 23           | 11           |
| Disaster Fund                          | Resources intended to events caused by serious and unforeseen situations that affect the worker or his family.                                                     | 12           | 9            |
| <b>Total EDEQ restricted resources</b> |                                                                                                                                                                    | <b>2.314</b> | <b>2.725</b> |

- Amount expressed in millions of Colombian pesos -

| <b>CHEC restricted resources</b>           |                             |              |              |
|--------------------------------------------|-----------------------------|--------------|--------------|
| <b>Fund or Agreement</b>                   | <b>Destination</b>          | <b>2017</b>  | <b>2016</b>  |
| FL Fiducoldex Housing                      | Housing Fund                | 2.331        | 2.220        |
| FL Davivienda PFS 081300003365             | PFS (Social Financing Plan) | 1.008        | 959          |
| FL Davivienda plant maintenance            | Plant maintenance           | 358          | 290          |
| FL BBVA 3050200000200 Custody Account      | XM Custody Account          | 311          | -            |
| FL Building Maintenance Agreement 08136999 | Building Maintenance        | 293          | 116          |
| FL Davivienda 081369999578                 | Description 10 -include-    | 240          | -            |
| FL Davivienda 69999594 Confa               | Company events              | 200          | -            |
| FL Daviv6999740-2 Learning Solutions       | Learning                    | 31           | 86           |
| FL Davi Environmental Maintenance Plan     | Environmental Maintenance   | 25           | 25           |
| FL Davivienda Life 081300003357            | Life Insurance (cancelled)  | -            | -            |
| <b>Total restricted resources CHEC</b>     |                             | <b>4.797</b> | <b>3.696</b> |

- Amount expressed in millions of Colombian pesos -

| <b>ESSA restricted resources</b>           |                                                                                    |               |               |
|--------------------------------------------|------------------------------------------------------------------------------------|---------------|---------------|
| <b>Fund or Agreement</b>                   | <b>Destination</b>                                                                 | <b>2017</b>   | <b>2016</b>   |
| FAER GGC 377 Agreement                     | Rural electrification agreement signed with the Ministry of Mines and Energy       | 9.607         | -             |
| BBVA guarantees 0408                       | XM Bank account                                                                    | 3.179         | 1.753         |
| FAER GGC 382 Agreement                     | Rural electrification agreement signed with the Ministry of Mines and Energy       | 3.139         | -             |
| FAER GGC 426 Agreement                     | Rural electrification agreement signed with the Ministry of Mines and Energy       | 2.510         | -             |
| FAER GGC 381 Agreement                     | Rural electrification agreement signed with the Ministry of Mines and Energy       | 779           | -             |
| Pto Wilches 115 Line Agreement             | Rural electrification agreement Pto Wilches - Barrancabermeja Line                 | 570           | 550           |
| Governor's Office - ESSA Phase V Agreement | Governor's Office rural electrification agreement                                  | 440           | 435           |
| San Gil Public Lighting Agreement          | San Gil public lighting Agreement                                                  | 409           | 1.883         |
| FAER Resources                             | Rural electrification agreements administration resources                          | 41            | 41            |
| Public hearings Resources Agreement        | Rural electrification agreement signed with the Ministry of Mines and Energy       | 1             | 32            |
| Self-insurance fund                        | Support of all risks insurance policies                                            | -             | 5.485         |
| PRONE 383 - ESSA Agreement                 | Rural electrification agreement signed with the Ministry of Mines and Energy       | -             | 95            |
| Jesus Maria National Royalties Fund        | Rural electrification agreement of the villages of the Municipality of Jesus Maria | -             | 93            |
| FAER GGC 384 Agreement                     | Rural electrification agreement signed with the Ministry of Mines and Energy       | -             | 814           |
| <b>Total restricted resources ESSA</b>     |                                                                                    | <b>20.675</b> | <b>11.182</b> |

- Amount expressed in millions of Colombian pesos -



| <b>CENS restricted resources</b>        |                                                                                                                                                                                                                                                                                                                                                                                                                     |              |              |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| <b>Fund or Agreement</b>                | <b>Destination</b>                                                                                                                                                                                                                                                                                                                                                                                                  | <b>2017</b>  | <b>2016</b>  |
| Ecopetrol Agreement                     | Join technical, administrative and financial efforts to perform the rural electrification works in the Municipalities of Tibu and El Carmen, department of North of Santander, according to the activities contemplated within the Expansion Plan of the Coverage OR CENS - PECOR and the Rural Electrification Program for the Catatumbo Zone and the Province of Ocaña III.                                       | 481          | 445          |
| Governor's Office Agreement             | Join technical, administrative and financial efforts between the department of North Santander and the electric plants of North Santander - C.E.N.S. S.A. E.S.P., to carry out the rural electrification works in the municipalities of Ábrego, El Carmen and El Tarra, of the Department North of Santander.                                                                                                       | 413          | 755          |
| FAER Catatumbo III                      | Carry out the rural electrification works in the municipalities of Convention, San Calixto, Cachira, Hacari', Ocaña, La Playa, Villa Caro, Teorama and La Esperanza department North of Santander                                                                                                                                                                                                                   | 397          | 864          |
| Custody Account BBVA XM Bank Guarantees | Guarantee and performance TIES (International Electricity Transactions) to cover power purchase projects .                                                                                                                                                                                                                                                                                                          | 343          | 410          |
| Housing Rotating Fund                   | Home loans to employees of CENS S.A.                                                                                                                                                                                                                                                                                                                                                                                | 204          | 40           |
| AOM Agreement                           | Administration, operation, maintenance and replacement of the rural electrification assets constructed with the resources of the project "rural electrification program zone of Catatumbo and province of Ocaña, phase 1, North of Santander".                                                                                                                                                                      | 65           | 65           |
| FAER Morales-Aguachica                  | Extend coverage, improve quality and continuity of the electric power service and meet the demand thereof in the zones of the National Interconnected System - SIN, located in the commercialization market of the network operator - Electric plans of North of Santander S.A. E.S.P., through the performance of projects of the Financial Support Fund for Energization of the Interconnected Rural Zones - FAER | 38           | 87           |
| Fundescat                               | Carrying out the rural electrification works in the municipalities of Tibu and El Tarra, department of North of Santander.                                                                                                                                                                                                                                                                                          | 12           | 175          |
| <b>Total CENS restricted resources</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>1.953</b> | <b>2.842</b> |

- Amount expressed in millions of Colombian pesos -

| <b>Aguas Nacionales restricted resources</b>       |                    |              |               |
|----------------------------------------------------|--------------------|--------------|---------------|
| <b>Fund or Agreement</b>                           | <b>Destination</b> | <b>2017</b>  | <b>2016</b>   |
| FLCorpbanca 153148929                              | PTAR Project       | 6.756        | -             |
| Corpbanca 07142-8 Remunerated Savings Account      | PTAR Project       | 1.409        | 24.683        |
| Bancolombia 536423 Checking Account                | Aguas del Atrato   | 103          | 193           |
| Niquia Circuit Fiduciary Alliance                  | PTAR Project       | 1            | 1             |
| Petty Cash                                         | Aguas del Atrato   | 1            | 1             |
| <b>Total Aguas Nacionales restricted resources</b> |                    | <b>8.270</b> | <b>24.879</b> |

- Amount expressed in millions of Colombian pesos -

| <b>Aguas Regionales restricted resources</b>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |             |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|
| <b>Fund or Agreement</b>                           | <b>Destination</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>2017</b> | <b>2016</b> |
| FLBogota 379061401                                 | Housing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 124         | 230         |
| FL IDEA 10005431                                   | IDEA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2           | 2           |
| FL IDEA 10006236                                   | IDEA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -           | 1           |
| San Jerónimo Agreement                             | Resources received in 2011 from the inter-administrative agreement 08-CF-124850 between the Department of Antioquia and the municipalities of Santafe de Antioquia and San Jeronimo, as well as resources received in 2011 under the inter-administrative financial support agreement between the Ministry of the Environment, Housing and Territorial Development, the Department of Antioquia and the Western Regional, which purpose is the financial support to the regional schemes for the rendering of water supply and sewage services. | -           | 324         |
| <b>Total Aguas Regionales restricted resources</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>126</b>  | <b>557</b>  |

- Amount expressed in millions of Colombian pesos -

| <b>EPRIO restricted resources</b> |                                                                                                                                                                                                                                              |             |             |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|
| <b>Fund or Agreement</b>          | <b>Destination</b>                                                                                                                                                                                                                           | <b>2017</b> | <b>2016</b> |
| Contingency Plan                  | Resources received from the Municipality of Rionegro to cover possible contingencies subsequent to the acquisition of EPRio by EPM                                                                                                           | 8.036       | -           |
| Agreement 094 of 2017             | Inter-administrative agreement for the construction of the master network of the water supply system in the sectors Cuatro Esquinas - Santa Ana of the urban zone of the Municipality of Rionegro                                            | 818         | -           |
| Christmas Lighting                | Inter-administrative agreement for delegated administration of resources for the leasing, transportation, installation, assembling and unassembling of the Christmas lighting in the urban zone of the Municipality of Rionegro              | 488         | -           |
| Agreement 198 of 2017             | Inter-administrative agreement for delegated administration of resources for the leasing, transportation, installation, assembling, unassembling and maintenance of the Christmas lighting in the urban zone of the Municipality of Rionegro | 419         | -           |

- Amount expressed in millions of Colombian pesos -

| Fund or Agreement                       | Destination                                                                                                                                                                                                                        | 2017          | 2016     |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|
| CONT 125 of 2017                        | Optimizing the waste water treatment plans (PTARS) located in the rural zone of the Municipality of Rionegro, through the construction of works that permit to adapt, repair and put into operation the existing treatment system. | 362           | -        |
| Agreement 180 of 2017                   | Delegated administration for the replacement of sewage networks of the Villa Camila Development, Neighborhood 4 Esquinas, including works supervision.                                                                             | 91            | -        |
| Agreement 125 of 2017                   | Optimizing the waste water treatment plans (PTARS) located in the rural zone of the Municipality of Rionegro, through the construction of works that permit to adapt, repair and put into operation the existing treatment system. | 19            | -        |
| <b>EPRIO Total restricted resources</b> |                                                                                                                                                                                                                                    | <b>10.233</b> | <b>-</b> |

- Amount expressed in millions of Colombian pesos -

| <b>EMVARIAS Restricted Resources</b>       |                                                                                                                                                                     |               |              |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|
| Fund or Agreement                          | Destination                                                                                                                                                         | 2017          | 2016         |
| FL Fidux. 437100-Closure                   | Delegated administration agreement with the Municipality of Medellin for the maintenance of green zones.                                                            | 9.119         | -            |
| FL Bancolombia 6093-Closure                | Resources intended to the payment of the closure and post-closure of the prairie.                                                                                   | 5.841         | 6.275        |
| FL Green Zones Agreement 2014              | Delegated administration agreement with the Municipality of Medellin for the service of cutting of green zones.                                                     | 2.273         | 2.191        |
| Agreement 18-897796-47 EDU                 | Delegated administration agreement with the Municipality of Medellin for the maintenance of green zones of the institutions of the Municipality and its 5 villages. | 118           | 210          |
| FL BBVA 423 Trimming-Felling Agreement     | Delegated administration agreement with the Municipality of Medellin for the service of maintenance of green zones and trimming and felling of trees.               | 31            | 30           |
| FL Occidente INDER                         | Agreement with INDER for the washing of bridges and roofs of the stadium.                                                                                           | 8             | 8            |
| FL Green Zones agreement 400054603         | Delegated administration agreement with the Municipality of Medellin for the service of maintenance of green zones.                                                 | 2             | 2            |
| <b>Total EMVARIAS restricted resources</b> |                                                                                                                                                                     | <b>17.392</b> | <b>8.715</b> |

- Amount expressed in millions of Colombian pesos -

| Restricted resources HET                                                |                                            |                |                |
|-------------------------------------------------------------------------|--------------------------------------------|----------------|----------------|
| Fund or Agreement                                                       | Destination                                | 2017           | 2016           |
| Concession contract of BPPS (Dry Wood Protector Forest) / Environmental | Concession Contract Certificate of Deposit | 1.073          | -              |
| ETESA / Energy Contract                                                 | ETESA Contract Certificate of Deposit      | 308            | -              |
| ETESA / Energy Contract                                                 | Deposit in guarantee ETESA-OER             | 105            | -              |
| Insurance policy                                                        | SURA certificate of deposit                | 63             | -              |
| Progreso S.A. / Severance Fund Contract                                 | Severance fund-indemnification             | 26             | -              |
| Progreso S.A. / Severance Fund Contract                                 | Severance fund-indemnification             | 15             | -              |
| Office leasing agreement                                                | Deposit for utilities                      | 9              | -              |
| Miscellaneous                                                           |                                            | -              | 1.492          |
| <b>Total restricted resources HET</b>                                   |                                            | <b>1.599</b>   | <b>1.492</b>   |
| <b>Total restricted resources EPM Group</b>                             |                                            | <b>183.611</b> | <b>186.147</b> |

- Amount expressed in millions of Colombian pesos -

## Note 19. Equity

### 19.1 Capital

Its capital is not divided into shares.

| Capital                | 2017      | 2016      |
|------------------------|-----------|-----------|
| Beginning balance      | 67        | 67        |
| Movement of the period | -         | -         |
| <b>Total</b>           | <b>67</b> | <b>67</b> |

Amounts expressed in millions of Colombian pesos -

### 19.2 Reserves

Of the accounts that make up equity, the reserves as of December 31, 2017 and 2016 consisted of the following:

| Reserves                         | 2017             | 2016             |
|----------------------------------|------------------|------------------|
| <b>Statutory reserves</b>        |                  |                  |
| Beginning balance                | 2.686.989        | 3.018.258        |
| Constitution                     | 35.737           | 231.982          |
| Appropriation <sup>(1)</sup>     | (135.563)        | (563.251)        |
| <b>Total statutory reserves</b>  | <b>2.587.163</b> | <b>2.686.989</b> |
| <b>Occasional reserves</b>       |                  |                  |
| Beginning balance                | 579.428          | 572.092          |
| Constitution                     | 289              | 7.336            |
| <b>Total occasional reserves</b> | <b>579.717</b>   | <b>579.428</b>   |
| <b>Otras reservas</b>            |                  |                  |
| Beginning balance                | 338.372          | 245.840          |
| Constitution                     | 64.681           | 92.532           |
| Appropriation(1)                 | (57.361)         | -                |
| Other movements                  | (33.289)         | -                |
| <b>Total other reserves</b>      | <b>312.404</b>   | <b>338.372</b>   |
| <b>Total reserves</b>            | <b>3.479.283</b> | <b>3.604.789</b> |

Amounts expressed in millions of Colombian pesos -

The nature and purpose of equity reserves of the EPM Group are described below:

- **Statutory reserves:** in compliance with Colombian tax provisions contained in Article 130 (reserve of 70% for excess of tax over accounting depreciation) and 211 of the Tax Code, EPM and the companies of the EPM Group that operate in Colombia have created the required reserves in order to be benefited by a special tax treatment and obtain a rationalization in the payment of the income and complementary tax.

For the affiliates of El Salvador, the legal reserve is established in accordance with the Commercial Code in effect, the companies must create annually a legal reserve of 7% of the net profits, with a minimum limit established of one fifth of their capital stock. Additionally, in accordance with the Income Tax Law, when the legal reserve decreases by any circumstance, such as capitalization, application to losses of previous periods or distribution, it will represent taxable income for the company for the amount that was deducted for income tax purposes in tax periods prior to that of its decrease, calculating it separately from the ordinary income, at the rate of 25%. For these purposes, the company will keep a record of the creation of legal reserve and of the amount deducted for determination of the net or taxable income in each tax period.

For the affiliates of Guatemala according to the Commercial Code, all commercial companies must appropriate annual as minimum 5% of their net profits to create the legal reserve, which cannot be distributed expect at the liquidation of the company. However, this reserve can be capitalized when it is equal to or higher than 15% of the paid capital at the closing of the immediately preceding period, notwithstanding continuing to reserve the mentioned 5%.

For affiliates of other countries in which EPM Group operates the creation of legal reserve has not been established by Law.

- (1) At EPM, the Board of Directors in their sessions of March 14, 2017 and March 31, 2016, approved:
- Releasing reserves for \$135,563 (2016: \$548,066) appropriated in previous periods by authorization from the Board of Directors.
  - In 2016 to appropriate a reserve for \$182,774 on the surpluses of 2015, in order to comply with article 130 of the Tax Code.
  - **Occasional reserves:** in accordance with Decree 2336 of 1995, for the profits incorporated in profit and loss in the application of equity method applied under local regulations, EPM and the companies of the EPM Group that operate in Colombia have created these reserves to in order to comply with this Decree.
  - **Other reserves:** includes statutory reserves, for reacquisition of shares and quote-parts, equity funds and others that as of December 31 represent the net balance corresponding to the releases made by the Affiliates in those reserves that have already complied with the requirements to be released.

### 19.3. Retained profits

The movement of retained earnings during the period was:

| Retained profits                                   | 2017              | 2016              |
|----------------------------------------------------|-------------------|-------------------|
| Beginning balance                                  | 12.959.786        | 11.417.031        |
| Impact of adoption IFRS 9 as of January 1, 2016    | -                 | (89.269)          |
| Restated balance                                   | 12.959.786        | 11.327.762        |
| Reserves movement                                  | 92.217            | 222.874           |
| Surpluses or dividends decreed                     | (1.609.136)       | (816.521)         |
| Transfer of other comprehensive income             | -                 | 466.447           |
| Purchases and sales to non-controlling interests   | -                 | (6.125)           |
| Income tax related to transactions with owners     | (1.681)           | (5.085)           |
| Disposal of a subsidiary                           | -                 | 4.298             |
| Other period movement                              | 64.663            | 42.136            |
| <b>Total retained earnings</b>                     | <b>11.505.849</b> | <b>11.235.786</b> |
| <b>Net result of the perio - controlling share</b> | <b>2.186.302</b>  | <b>1.724.000</b>  |
| <b>Total retained earnings</b>                     | <b>13.692.151</b> | <b>12.959.786</b> |

*Amounts expressed in millions of Colombian pesos -*

The surplus paid during the year was \$ 1,309,136 (2016: \$ 816,521), \$ 550,438 (2016: \$ 445,375) ordinary and \$ 758,698 (2016: \$ 371,146) extraordinary. The payment for \$ 300,000 of the sale of ISAGEN is included.

### 19.4. Non-controlling participations

The movement of the non-controlling interests at the report date is:

| Non-controlling interests                        | 2017           | 2016           |
|--------------------------------------------------|----------------|----------------|
| Beginning balance                                | 803.461        | 843.974        |
| Surpluses or dividends decreed                   | (86.328)       | (78.031)       |
| Participation in the result of the period        | 140.800        | 141.745        |
| Participation in other comprehensive income      | (1.238)        | (5.150)        |
| Effect by subsidiary disposition                 | -              | (2.368)        |
| Impact of adoption IFRS 9 as January 1, 2016     | -              | (5.667)        |
| Purchases and sales to non-controlling interests | -              | 29.774         |
| Income tax related to transactions with owners   | (1.605)        | -              |
| Other movement of the period                     | 2.564          | (120.816)      |
| <b>Total accumulated result</b>                  | <b>857.654</b> | <b>803.461</b> |

Amounts expressed in millions of Colombian pesos -

## Note 20. Other accumulated comprehensive income

The breakdown of each component of the other comprehensive income of the consolidated statement of financial position and the corresponding tax effect is as follows:

| Other accumulated comprehensive income                                       | 2017             |                  |                  | 2016             |                 |                  |
|------------------------------------------------------------------------------|------------------|------------------|------------------|------------------|-----------------|------------------|
|                                                                              | Gross            | Tax effect       | Net              | Gross            | Tax effect      | Net              |
| Reclassification of properties, plant and equipment to investment properties | 13.439           | (1.360)          | 12.079           | 13.439           | (1.360)         | 12.079           |
| New measurements of defined benefit plans                                    | (43.995)         | 14.437           | (29.557)         | (13.770)         | (1.179)         | (14.949)         |
| Equity investments measured at fair value through equity                     | 2.309.259        | (135.913)        | 2.173.346        | 1.834.037        | (88.162)        | 1.745.875        |
| Participation in other comprehensive income of associates and joint ventures | (2.581)          | -                | (2.581)          | (925)            | 1.113           | 188              |
| Cash flow hedges                                                             | (24.762)         | 18.973           | (5.789)          | (19.374)         | 11.112          | (8.262)          |
| Conversion of business financial statements abroad                           | 716.675          | -                | 716.675          | 705.285          | -               | 705.285          |
| <b>Total</b>                                                                 | <b>2.968.034</b> | <b>(103.862)</b> | <b>2.864.173</b> | <b>2.518.692</b> | <b>(78.476)</b> | <b>2.440.216</b> |

Amounts expressed in million of Colombian pesos -

During 2016, \$ 466,447 were reclassified from the sale of the shares in Isagen, previously recognized in the other comprehensive income to the accumulated results.

Below is a reconciliation of the opening and closing balances at the report date for each component of the comprehensive income:

### 20.1 Component: reclassification of properties, plant and equipment to investment properties

The component of the other comprehensive incomes of equity investments measured at fair value through equity represents the accumulated value of profits or losses by the valuation at fair value less the values transferred to the accumulated profits when these investments have been sold. The changes in the fair value do not reclassify to the result of the period.

| Reclassification of properties, plant and equipment to investment properties | 2017          | 2016          |
|------------------------------------------------------------------------------|---------------|---------------|
| Beginning balance                                                            | 12.079        | 3.335         |
| Net earnings from changes in the fair value of investment properties         | -             | 9.700         |
| Associated income tax (or equivalent)                                        | -             | (956)         |
| <b>Total</b>                                                                 | <b>12.079</b> | <b>12.079</b> |

Amounts expressed in millions of Colombian pesos -

## 20.2. Component of new measurements of defined benefit plans

The component of new measurements of the defined benefit plans represents the accumulated value of the actuarial profits or losses, the returns of the assets of the plan and the changes in the effect of the asset's ceiling, excluding the values included in the net interest over the liability (asset) of net defined benefits. The net value of the new measurements is transferred to the accumulated profits and not reclassified to the results of the period. It includes the portion that corresponds to the EPM Group in its investments in associates and joint ventures.

| Component new measurements of defined benefit plans                 | 2017            | 2016            |
|---------------------------------------------------------------------|-----------------|-----------------|
| Beginning balance                                                   | (14.949)        | 46.232          |
| Profit for the period for new measurements of defined benefit plans | (31.686)        | (101.182)       |
| Associated income tax (or equivalent)                               | 11.012          | 40.118          |
| Other changes - net                                                 | 6.066           | (117)           |
| <b>Total</b>                                                        | <b>(29.557)</b> | <b>(14.949)</b> |

Amounts expressed in millions of Colombian pesos -

## 20.3. Component: Equity investments measured at fair value through equity

The component of the other comprehensive incomes of equity investments measured at fair value through equity represents the accumulated value of profits or losses by the valuation at fair value less the values transferred to the accumulated profits when these investments have been sold. The changes in the fair value do not reclassify to the profit and loss for the period. It includes the portion that corresponds to the EPM Group in its investments in associates and joint ventures to the result of the period.

| Equity investments measured at fair value through equity                          | 2017             | 2016             |
|-----------------------------------------------------------------------------------|------------------|------------------|
| Beginning balance                                                                 | 1.745.876        | 1.763.131        |
| Net gains or losses on changes in the fair value of equity investments            | 475.222          | 538.676          |
| Associated income tax (or equivalent)                                             | (43.703)         | (88.162)         |
| Cumulative gains (losses) transferred to cumulative gains / losses for the period | (18)             | (466.447)        |
| Other changes - net                                                               | (4.032)          | (1.322)          |
| <b>Total</b>                                                                      | <b>2.173.346</b> | <b>1.745.876</b> |

- Amounts expressed in millions of Colombian pesos -

## 20.4. Participation in other comprehensive income of associates and joint ventures

The component of the other comprehensive income in the other comprehensive income of associates and joint ventures represents the accumulated value of the application of equity method to profit and loss of other comprehensive income of associates and joint ventures. The accumulated value of the gains or losses will be reclassified to the results of the period or to the accumulated profits, depending on the items that originated equity method, when these investments have been sold.



| Participation in the other comprehensive income of associates and joint ventures | 2017           | 2016       |
|----------------------------------------------------------------------------------|----------------|------------|
| Beginning balance                                                                | 189            | 1.588      |
| New measurements of defined benefit plans                                        | (3.187)        | (3.141)    |
| Results for conversion of business abroad                                        | 4              | 629        |
| Income tax ( or equivalent ) associated                                          | (699)          | 1.113      |
| Hedging operations                                                               | 701            | -          |
| Other changes - Net                                                              | 411            | -          |
| <b>Total</b>                                                                     | <b>(2.581)</b> | <b>189</b> |

- Amount expressed in millions of Colombian pesos -

## 20.5. Component: cash flow hedging

The component of the other comprehensive income of cash flow hedging represents the accumulated value of the effective portion of the profits or losses that arise from the changes in the fair value of entries hedged in a cash flow hedging. The accumulated value of profits or losses will be reclassified to the profit and loss of the period only when the transaction hedged affects the result of the profit and loss of the period or the highly probable transaction is not anticipated that it will occur, or is included, as part of its carrying amount, in a non-financial hedged entry. It includes the portion that corresponds to the EPM Group in its investments in associates and joint ventures.

| Cash flow hedges                                                    | 2017           | 2016           |
|---------------------------------------------------------------------|----------------|----------------|
| Beginning balance                                                   | (8.262)        | -              |
| Gains or losses on changes in the fair value of hedging instruments | (5.388)        | (19.375)       |
| Associated income tax (or equivalent)                               | 8.429          | 9.494          |
| Other changes - net                                                 | (568)          | 1.619          |
| <b>Total</b>                                                        | <b>(5.789)</b> | <b>(8.262)</b> |

- Amounts expressed in millions of Colombian pesos -

## 20.6. Component: profits or losses for conversion of business abroad

The component of conversion differences represents the accumulated value of the exchange differences that arise from the conversion to the currency of presentation by EPM Group of the results and of the net assets of the operations abroad, as well as of the profits or losses of hedging instruments that are designated in a hedging of net investment in a business abroad. The accumulated conversion differences reclassify to profit and loss for the period, partial or totally, when the operation is provided abroad. It includes the portion that corresponds to the EPM Group in its investments in associates and joint ventures.

| Result for foreign business conversion                         | 2017           | 2016           |
|----------------------------------------------------------------|----------------|----------------|
| Beginning balance                                              | 705.284        | 859.308        |
| Net foreign exchange differences on business conversion abroad | 15.222         | (152.394)      |
| Other changes                                                  | (3.831)        | (1.630)        |
| <b>Total</b>                                                   | <b>716.675</b> | <b>705.284</b> |

- Amounts expressed in millions of Colombian pesos -

## Note 21. Credits and loans

The following is the detail of carrying amount of credits and loans:

| Credits and Loans                                | 2017              | 2016              |
|--------------------------------------------------|-------------------|-------------------|
| <b>Non current</b>                               |                   |                   |
| Commercial banks loans                           | 3.845.655         | 4.516.748         |
| Other bonds and securities issued                | 7.785.051         | 5.849.555         |
| Multilateral banks loans                         | 1.093.597         | 1.094.218         |
| Development banks loans                          | 802.370           | 842.053           |
| Bonds and securities issued                      | 589.570           | 652.047           |
| <b>Total other credits and loans non current</b> | <b>14.116.243</b> | <b>12.954.621</b> |
| <b>Current</b>                                   |                   |                   |
| Commercial banks loans                           | 1.210.946         | 645.091           |
| Multilateral Banks loans                         | 574.671           | 570.337           |
| Other bonds and securities issued                | 455.148           | 285.716           |
| Bonds and securities issued                      | 484.163           | 271.047           |
| Development banks loans                          | 117.552           | 121.196           |
| <b>Total other credits and loans current</b>     | <b>2.842.480</b>  | <b>1.893.387</b>  |
| <b>Total other credits and loans</b>             | <b>16.958.723</b> | <b>14.848.008</b> |

- Amount expressed in millions of Colombian pesos -

The detail of credits and loans of the entity is as follows:

| Entity           | Entity or loan                                | Original currency | Initial date | Term  | Nominal interest rate | 2017   |               |                      |              | 2016   |               |                      |              |
|------------------|-----------------------------------------------|-------------------|--------------|-------|-----------------------|--------|---------------|----------------------|--------------|--------|---------------|----------------------|--------------|
|                  |                                               |                   |              |       |                       | IRR    | Nominal value | Amortized cost value | Total amount | IRR    | Nominal value | Amortized cost value | Total amount |
| EPM              | 2015 CLUB DEAL BANK OF TOKYO                  | USD               | 12/01/2016   | 5,00  | LIBOR + 1.4%          | 4,00%  | 701.240       | (3.567)              | 697.673      | 2,83%  | 1.680.398     | 5.833                | 1.686.231    |
| EPM              | 1262 BONOS INTERNACIONALE                     | USD               | 29/07/2009   | 10,00 | 7.62%                 | 8,17%  | 1.492.000     | 39.894               | 1.531.894    | 8,16%  | 1.500.355     | 35.420               | 1.535.775    |
| EPM              | 1266 GLOBAL 2021 COP                          | COP               | 31/01/2011   | 10,00 | 8.38%                 | 8,69%  | 1.250.000     | 85.144               | 1.335.144    | 8,70%  | 1.250.000     | 82.054               | 1.332.054    |
| EPM              | 1273 GLOBAL 2024 COP                          | COP               | 10/09/2014   | 10,00 | 7.63%                 | 7,73%  | 965.745       | 16.659               | 982.404      | 7,73%  | 965.745       | 16.169               | 981.914      |
| EPM              | 1013 AFD                                      | USD               | 14/06/2013   | 14,00 | 4.37%                 | 4,47%  | 840.978       | 13.693               | 854.672      | 4,47%  | 930.256       | 14.959               | 945.216      |
| EPM              | 1665 BID-1664-1                               | COP               | 31/03/2016   | 9,83  | 7.80%                 | 9,46%  | 379.692       | 3.935                | 383.627      | 9,57%  | 427.154       | 3.134                | 430.288      |
| EPM              | BID 2120-2                                    | COP               | 23/08/2016   | 17,50 | 7.50%                 | 8,04%  | 413.134       | 4.607                | 417.741      | 7,89%  | 438.172       | 8.324                | 446.496      |
| EPM              | 2179 BANK OF TOKYO-MITSUB                     | USD               | 16/01/2009   | 15,00 | LIBOR + 0.95%         | 1,17%  | 298.376       | 16.760               | 315.136      | 0,66%  | 350.063       | 22.041               | 372.104      |
| EPM              | 1265 BONOS IPC IV TRAM 3                      | COP               | 14/12/2010   | 20,00 | IPC + 4.94%           | 9,37%  | 267.400       | (57)                 | 267.343      | 11,33% | 267.400       | (788)                | 266.612      |
| EPM              | 1277 BONOS IPC VII TRAM III                   | COP               | 20/03/2015   | 20,00 | IPC + 4.43%           | 8,86%  | 260.000       | 367                  | 260.367      | 10,78% | 260.000       | (446)                | 259.554      |
| EPM              | 1272 BONOS IPC VI TRAM III                    | COP               | 30/07/2014   | 20,00 | IPC + 4.5%            | 8,99%  | 250.000       | (191)                | 249.809      | 11,01% | 250.000       | (723)                | 249.277      |
| EPM              | 1269 BONOS IPC V TRAM III                     | COP               | 5/12/2013    | 20,00 | IPC + 5.03%           | 9,54%  | 229.190       | (1.819)              | 227.371      | 11,55% | 229.190       | (2.393)              | 226.979      |
| EPM              | 1261 BONOS IPC III TRAMO                      | COP               | 21/04/2009   | 15,00 | IPC + 6.24%           | 10,55% | 198.400       | 4.374                | 202.774      | 12,60% | 198.400       | 4.399                | 202.799      |
| EPM              | 2021 BID 2120-1                               | COP               | 27/05/2014   | 9,33  | 6.27%                 | 7,05%  | 190.295       | (1.892)              | 188.403      | 6,85%  | 190.295       | (725)                | 189.570      |
| EPM              | 1254 BONOS IPC                                | COP               | 20/11/2008   | 10,00 | IPC + 7.12%           | 10,49% | 174.410       | 3.563                | 177.973      | 12,71% | 174.410       | 4.553                | 178.963      |
| EPM              | 1257 BONOS IPC II TRAMO                       | COP               | 22/01/2009   | 10,00 | IPC + 5.80%           | 10,25% | 138.600       | 2.447                | 141.047      | 12,39% | 138.600       | 2.321                | 140.921      |
| EPM              | 1274 BONOS IPC V TRAM IV                      | COP               | 20/03/2015   | 10,00 | IPC + 3.65%           | 8,94%  | 130.000       | 192                  | 130.192      | 10,94% | 130.000       | (175)                | 129.825      |
| EPM              | 1270 BONOS IPC VI TRAMO I                     | COP               | 30/07/2014   | 6,00  | IPC + 3.57%           | 8,31%  | 125.000       | 322                  | 125.322      | 10,31% | 125.000       | 57                   | 125.057      |
| EPM              | 1271 BONOS IPC VI TRAMO II                    | COP               | 30/07/2014   | 12,00 | IPC + 4.17%           | 8,70%  | 125.000       | 42                   | 125.042      | 10,73% | 125.000       | (290)                | 124.710      |
| EPM              | 5765 AGRARIO                                  | COP               | 24/06/2014   | 16,00 | IPC + 4.70%           | 9,22%  | 116.000       | (1.098)              | 114.902      | 11,01% | 116.000       | (259)                | 115.741      |
| EPM              | 1276 BONOS IPC VII TRAMO II                   | COP               | 20/03/2015   | 12,00 | IPC + 3.92%           | 8,25%  | 120.000       | (67)                 | 119.933      | 10,22% | 120.000       | (356)                | 119.644      |
| EPM              | 1264 BONOS IPC IV TRAM 2                      | COP               | 14/12/2010   | 12,00 | IPC + 4.20%           | 8,74%  | 119.900       | 113                  | 120.013      | 10,67% | 119.900       | (377)                | 119.523      |
| EPM              | 1275 BONOS IPC VII TRAMO I                    | COP               | 20/03/2015   | 5,00  | IPC + 2.72%           | 7,11%  | 120.000       | (102)                | 119.898      | 9,12%  | 120.000       | (519)                | 119.481      |
| EPM              | 1268 BONOS IPC V TRAMO II                     | COP               | 5/12/2013    | 10,00 | IPC + 4.52%           | 9,10%  | 96.210        | (529)                | 95.681       | 11,12% | 96.210        | (881)                | 95.329       |
| EPM              | 1259 BONOS TF II TRAMO                        | COP               | 22/01/2009   | 10,00 | 10.80%                | 10,79% | 74.700        | 7.564                | 82.264       | 10,81% | 74.700        | 7.566                | 82.266       |
| EPM              | 2218 BID 800- RELIQUIDADO                     | USD               | 14/12/1995   | 25,00 | LIBOR + 2.38%         | 2,29%  | 48.320        | 1.671                | 49.992       | 1,96%  | 72.886        | 2.856                | 75.742       |
| EPM              | 1256 BONOS TASA FIJA                          | COP               | 20/11/2008   | 10,00 | 13.80%                | 13,79% | 58.000        | 853                  | 58.853       | 13,79% | 58.000        | 857                  | 58.857       |
| EPM              | 1267 BONOS IPC V TRAMO I                      | COP               | 5/12/2013    | 5,00  | IPC + 3.82%           | 8,55%  | 41.880        | 83                   | 41.963       | 10,71% | 41.880        | (186)                | 41.694       |
| EPM              | 1220 BID 2120                                 | USD               | 26/07/2011   | 25,00 | LIBOR + 0%            | 3,33%  | 111.903       | (55)                 | 111.848      | 2,06%  | 159.408       | (15.419)             | 143.989      |
| EPM              | 3217 BID 2217/OC-CO                           | USD               | 31/05/2012   | 5,50  | LIBOR + 2.00%         | 0,00%  | -             | -                    | -            | 3,60%  | 6.668         | 90                   | 6.758        |
| EPM              | 2016 BNDES                                    | USD               | 28/09/2016   | 23,50 | 4.89%                 | 5,22%  | 76.971        | (3.092)              | 73.879       | 5,23%  | 24.042        | (2.235)              | 21.807       |
| EPM              | 2023 BID 2120-3                               | COP               | 8/12/2017    | 16,30 | 6.26%                 | 6,56%  | 205.681       | 826                  | 206.507      | 0,00%  | -             | -                    | -            |
| EPM              | 6014 Banco Popular                            | COP               | 26/12/2017   | 1,00  | IBR + 1.80%           | 6,47%  | 100.000       | 87                   | 100.087      | 0,00%  | -             | -                    | -            |
| EPM              | 6015 COLPATRIA                                | COP               | 12/12/2017   | 1,00  | IBR + 1.65%           | 6,38%  | 100.000       | 324                  | 100.324      | 0,00%  | -             | -                    | -            |
| EPM              | 6016 COLPATRIA                                | COP               | 21/12/2017   | 1,00  | IBR + 1.65%           | 6,36%  | 100.000       | 170                  | 100.170      | 0,00%  | -             | -                    | -            |
| EPM              | 1278 GLOBAL 2027 COP                          | COP               | 8/11/2017    | 10,00 | 8.38%                 | 8,46%  | 2.300.000     | 13.925               | 2.313.925    | 0,00%  | -             | -                    | -            |
| EPM              | EDC                                           | USD               | -            | -     | 0,0%                  | 0,00%  | -             | (8.628)              | (8.628)      | 0,00%  | -             | (3.912)              | (3.912)      |
| EPM              | CAF                                           | USD               | -            | -     | 0,0%                  | 0,00%  | -             | (3.128)              | (3.128)      | 0,00%  | -             | (150)                | (150)        |
| EPM              | CII - Corporación Interamericana de Inversion | USD               | -            | -     | 0,0%                  | 0,00%  | -             | (1.504)              | (1.504)      | 0,00%  | -             | (243)                | (243)        |
| AGUAS REGIONALES | HELM                                          | COP               | 16/03/2012   | 12,00 | DTF - 1.00%           | 3,24%  | 5.153         | 146                  | 5.298        | 4,76%  | 5.977         | 209                  | 6.186        |
| AGUAS REGIONALES | Banco Popular 1500                            | COP               | 24/09/2012   | 12,00 | DTF + 3.45%           | 8,04%  | 1.013         | 28                   | 1.040        | 9,63%  | 1.163         | 38                   | 1.201        |
| AGUAS REGIONALES | Banco Popular 350                             | COP               | 19/10/2012   | 12,00 | DTF + 3.45%           | 8,02%  | 245           | 11                   | 256          | 9,64%  | 280           | 14                   | 294          |
| AGUAS REGIONALES | Banco Popular 700                             | COP               | 27/11/2012   | 12,00 | DTF + 3.45%           | 8,21%  | 490           | 14                   | 504          | 9,69%  | 560           | 22                   | 582          |
| AGUAS REGIONALES | Banco Popular 800                             | COP               | 26/12/2012   | 12,00 | DTF + 3.45%           | 8,07%  | 560           | 15                   | 575          | 9,67%  | 640           | 20                   | 660          |
| AGUAS REGIONALES | Banco Popular 666                             | COP               | 12/04/2013   | 12,00 | DTF + 3.45%           | 8,04%  | 499           | 23                   | 522          | 9,65%  | 566           | 31                   | 597          |
| AGUAS REGIONALES | Banco Popular 520                             | COP               | 25/04/2013   | 12,00 | DTF + 3.45%           | 8,12%  | 390           | 16                   | 406          | 9,72%  | 442           | 21                   | 463          |
| AGUAS REGIONALES | Banco Popular 616                             | COP               | 10/05/2013   | 12,00 | DTF + 3.45%           | 8,04%  | 462           | 18                   | 481          | 9,64%  | 524           | 24                   | 548          |
| AGUAS REGIONALES | Banco Popular 500                             | COP               | 26/07/2013   | 12,00 | DTF + 3.45%           | 8,20%  | 388           | 15                   | 402          | 9,81%  | 438           | 20                   | 458          |
| AGUAS REGIONALES | Banco Popular 1082                            | COP               | 20/09/2013   | 12,00 | DTF + 3.45%           | 8,07%  | 839           | 25                   | 864          | 9,68%  | 947           | 34                   | 980          |
| AGUAS REGIONALES | Banco Popular 950                             | COP               | 4/12/2013    | 12,00 | DTF + 3.45%           | 8,17%  | 760           | 24                   | 784          | 9,77%  | 855           | 32                   | 887          |
| AGUAS REGIONALES | Banco Popular 1915                            | COP               | 13/12/2013   | 12,00 | DTF + 3.45%           | 8,12%  | 1.533         | 47                   | 1.580        | 9,73%  | 1.724         | 63                   | 1.787        |
| AGUAS REGIONALES | Banco BBVA 1000                               | COP               | 20/05/2014   | 10,00 | DTF - 0.70%           | 3,88%  | 813           | 18                   | 831          | 5,42%  | 938           | 27                   | 964          |
| AGUAS REGIONALES | Banco BBVA 700                                | COP               | 23/07/2014   | 10,00 | IPC + 4.90%           | 7,76%  | 591           | 32                   | 623          | 9,47%  | 678           | 47                   | 725          |
| AGUAS REGIONALES | Banco BBVA 400                                | COP               | 19/08/2014   | 10,00 | IPC + 4.90%           | 7,85%  | 338           | 18                   | 355          | 9,57%  | 388           | 26                   | 413          |

| Entity           | Entity or loan        | Original currency | Initial date | Term  | Nominal interest rate | 2017   |               |                      |              | 2016   |               |                      |              |
|------------------|-----------------------|-------------------|--------------|-------|-----------------------|--------|---------------|----------------------|--------------|--------|---------------|----------------------|--------------|
|                  |                       |                   |              |       |                       | IRR    | Nominal value | Amortized cost value | Total amount | IRR    | Nominal value | Amortized cost value | Total amount |
| AGUAS REGIONALES | Banco BBVA 400-2      | COP               | 28/10/2014   | 10,00 | IPC + 4.90%           | 7,88%  | 338           | 17                   | 355          | 9,61%  | 388           | 25                   | 413          |
| AGUAS REGIONALES | Banco BBVA 1377       | COP               | 19/12/2014   | 10,00 | DTF - 0.70%           | 4,16%  | 1.205         | 13                   | 1.218        | 5,71%  | 1.377         | 21                   | 1.398        |
| AGUAS REGIONALES | Banco BBVA 850        | COP               | 16/03/2015   | 10,00 | IPC + 4.90%           | 8,58%  | 717           | 24                   | 741          | 10,33% | 823           | 37                   | 860          |
| AGUAS REGIONALES | Bancolombia 3000      | COP               | 17/10/2013   | 10,00 | DTF + 2.75%           | 7,28%  | 2.250         | 87                   | 2.337        | 8,89%  | 2.625         | 122                  | 2.747        |
| AGUAS REGIONALES | Banco Popular 3000    | COP               | 26/02/2014   | 10,00 | DTF + 2.75%           | 7,41%  | 2.344         | 65                   | 2.409        | 9,01%  | 2.720         | 91                   | 2.811        |
| AGUAS REGIONALES | Banco Popular 1700    | COP               | 2/05/2014    | 10,00 | DTF + 2.75%           | 7,58%  | 1.381         | 41                   | 1.422        | 9,11%  | 1.594         | 61                   | 1.655        |
| AGUAS REGIONALES | Banco Popular 520 Occ | COP               | 30/10/2014   | 10,00 | DTF + 2.75%           | 7,86%  | 455           | 11                   | 466          | 9,44%  | 520           | 16                   | 536          |
| AGUAS REGIONALES | Bogota 680            | COP               | 28/10/2015   | 10,00 | DTF + 2.60%           | 8,32%  | 680           | 10                   | 690          | 9,65%  | 680           | 13                   | 693          |
| CENS             | Banco Agrario         | COP               | 30/09/2015   | 2,50  | DTF + 1.60%           | 7,52%  | 5.000         | 87                   | 5.087        | 7,72%  | 15.000        | 388                  | 15.388       |
| CENS             | Banco Banco BBVA      | COP               | 5/07/2016    | 0,50  | DTF + 4.34%           | 0,00%  | -             | -                    | -            | 12,00% | 10.000        | 274                  | 10.274       |
| CENS             | Banco Banco BBVA      | COP               | 13/07/2016   | 10,00 | IBR + 4.89%           | 12,40% | 1.133         | 56                   | 1.189        | 12,39% | 1.133         | 59                   | 1.192        |
| CENS             | Banco Banco BBVA      | COP               | 17/08/2016   | 10,00 | IBR + 4.89%           | 10,17% | 1.309         | 30                   | 1.339        | 12,40% | 1.309         | 52                   | 1.361        |
| CENS             | Banco Banco BBVA      | COP               | 15/09/2016   | 10,00 | IBR + 4.89%           | 10,13% | 4.722         | 78                   | 4.800        | 12,41% | 4.722         | 142                  | 4.864        |
| CENS             | Banco Banco BBVA      | COP               | 3/10/2016    | 10,00 | IBR + 4.89%           | 10,12% | 5.000         | 59                   | 5.059        | 12,40% | 5.000         | 122                  | 5.122        |
| CENS             | Banco Banco BBVA      | COP               | 14/10/2016   | 10,00 | IBR + 4.89%           | 10,07% | 2.496         | 27                   | 2.523        | 12,40% | 2.496         | 57                   | 2.553        |
| CENS             | Banco Banco BBVA      | COP               | 24/10/2016   | 10,00 | IBR + 4.89%           | 10,00% | 6.140         | 62                   | 6.202        | 12,39% | 6.140         | 130                  | 6.270        |
| CENS             | Banco Davivienda      | COP               | 16/06/2016   | 10,00 | IBR + 4.89%           | 10,07% | 40.000        | (302)                | 39.698       | 12,58% | 40.000        | (86)                 | 39.914       |
| CENS             | Banco Davivienda      | COP               | 15/07/2016   | 10,00 | IBR + 4.89%           | 10,10% | 5.488         | 195                  | 5.683        | 12,39% | 5.488         | 282                  | 5.770        |
| CENS             | Banco Davivienda      | COP               | 18/08/2016   | 10,00 | IBR + 4.89%           | 10,18% | 6.198         | 141                  | 6.339        | 12,40% | 6.198         | 246                  | 6.444        |
| CENS             | Banco Davivienda      | COP               | 16/09/2016   | 10,00 | IBR + 4.89%           | 10,17% | 5.156         | 77                   | 5.233        | 12,40% | 5.156         | 139                  | 5.295        |
| CENS             | Banco Davivienda      | COP               | 14/10/2016   | 10,00 | IBR + 4.89%           | 10,10% | 4.851         | 46                   | 4.897        | 12,40% | 4.851         | 110                  | 4.961        |
| CENS             | Banco Davivienda      | COP               | 17/11/2016   | 10,00 | IBR + 4.89%           | 9,97%  | 3.877         | 14                   | 3.891        | 12,40% | 3.877         | 56                   | 3.933        |
| CENS             | Banco Davivienda      | COP               | 24/11/2016   | 10,00 | IBR + 4.89%           | 9,90%  | 11.020        | 41                   | 11.061       | 12,40% | 11.020        | 132                  | 11.152       |
| CENS             | Banco Davivienda      | COP               | 5/12/2016    | 10,00 | IBR + 4.89%           | 9,95%  | 14.210        | (25)                 | 14.185       | 12,39% | 14.210        | 119                  | 14.329       |
| CENS             | Banco Davivienda      | COP               | 16/12/2016   | 10,00 | IBR + 4.89%           | 9,94%  | 15.232        | (59)                 | 15.173       | 12,39% | 15.232        | 73                   | 15.305       |
| CENS             | Banco Davivienda      | COP               | 13/01/2017   | 10,00 | IBR + 4.89%           | 9,92%  | 11.000        | 462                  | 11.462       | -      | -             | -                    | -            |
| CENS             | Banco de Bogotá       | COP               | 4/09/2012    | 7,00  | IBR + 1.88%           | 6,18%  | 12.000        | 319                  | 12.319       | 7,73%  | 18.000        | 805                  | 18.805       |
| CENS             | Banco de Bogotá       | COP               | 15/05/2014   | 7,00  | IBR + 1.88%           | 6,69%  | 7.000         | 47                   | 7.047        | 8,92%  | 9.000         | 152                  | 9.152        |
| CENS             | Banco de Bogotá       | COP               | 18/12/2015   | 7,00  | IBR + 1.88%           | 8,20%  | 10.000        | (156)                | 9.844        | 7,79%  | 10.000        | (94)                 | 9.906        |
| CENS             | Banco Popular         | COP               | 15/05/2017   | 10,00 | IBR + 4.35%           | 8,92%  | 37.241        | 351                  | 37.591       | -      | -             | -                    | -            |
| CENS             | Banco Popular         | COP               | 26/05/2017   | 10,00 | IBR + 4.35%           | 8,90%  | 8.540         | 57                   | 8.597        | -      | -             | -                    | -            |
| CENS             | Banco Popular         | COP               | 23/06/2017   | 10,00 | IBR + 4.35%           | 8,93%  | 6.505         | (8)                  | 6.497        | -      | -             | -                    | -            |
| CENS             | Banco Popular         | COP               | 29/06/2017   | 10,00 | IBR + 4.35%           | 8,90%  | 10.162        | (13)                 | 10.149       | -      | -             | -                    | -            |
| CENS             | Banco Popular         | COP               | 18/07/2017   | 10,00 | IBR + 4.35%           | 8,95%  | 14.951        | 621                  | 15.572       | -      | -             | -                    | -            |
| CENS             | Banco Popular         | COP               | 27/07/2017   | 10,00 | IBR + 4.35%           | 8,95%  | 6.500         | 255                  | 6.755        | -      | -             | -                    | -            |
| CENS             | Banco Popular         | COP               | 23/08/2017   | 10,00 | IBR + 4.35%           | 8,94%  | 6.000         | 192                  | 6.192        | -      | -             | -                    | -            |
| CENS             | Banco Popular         | COP               | 15/09/2017   | 10,00 | IBR + 4.35%           | 8,93%  | 6.442         | 168                  | 6.610        | -      | -             | -                    | -            |
| CENS             | Banco Popular         | COP               | 19/09/2017   | 12,00 | IBR - 1.80%           | 3,24%  | 5.923         | 54                   | 5.977        | -      | -             | -                    | -            |
| CENS             | Banco Popular         | COP               | 19/09/2017   | 10,00 | IBR + 4.45%           | 9,62%  | 11.846        | 305                  | 12.151       | -      | -             | -                    | -            |
| CENS             | Banco Popular         | COP               | 17/11/2017   | 10,00 | IBR + 4.35%           | 8,88%  | 9.659         | 100                  | 9.759        | -      | -             | -                    | -            |
| CENS             | Banco Popular         | COP               | 17/11/2017   | 12,00 | IBR - 1.80%           | 2,97%  | 4.077         | 14                   | 4.091        | -      | -             | -                    | -            |
| CENS             | Banco Popular         | COP               | 17/11/2017   | 10,00 | IBR + 4.45%           | 9,59%  | 8.154         | 90                   | 8.244        | -      | -             | -                    | -            |
| CENS             | Banco Popular         | COP               | 18/12/2017   | 10,00 | IBR + 4.35%           | 8,85%  | 20.000        | 61                   | 20.061       | -      | -             | -                    | -            |
| CHEC             | Banco Agrario         | COP               | 6/01/2016    | 10,00 | DTF + 2.99%           | 8,17%  | 65.000        | 1.327                | 66.327       | 9,76%  | 65.000        | 1.741                | 66.741       |
| CHEC             | Banco BBVA            | COP               | 22/08/2014   | 10,00 | IPC + 3.50%           | 7,49%  | 56.531        | 866                  | 57.397       | 9,32%  | 64.906        | 1.386                | 66.293       |
| CHEC             | Banco BBVA            | COP               | 28/12/2015   | 10,00 | DTF + 2.35%           | 7,51%  | 60.000        | 119                  | 60.119       | 9,74%  | 60.000        | 282                  | 60.282       |
| CHEC             | CORPBANCA             | COP               | 22/08/2014   | 10,00 | IPC + 3.50%           | 7,49%  | 43.031        | 661                  | 43.692       | 9,32%  | 49.406        | 1.058                | 50.464       |
| CHEC             | IPSE                  | COP               | 30/04/1993   | 24,00 | 5.84%                 | 0,00%  | -             | -                    | -            | 6,46%  | 133           | 6                    | 139          |
| EDEQ             | Banco Agrario         | COP               | 25/06/2015   | 3,25  | DTF + 1.65%           | 5,96%  | 2.475         | 13                   | 2.488        | 7,23%  | 5.774         | 74                   | 5.848        |
| EDEQ             | Banco Davivienda      | COP               | 12/11/2015   | 7,00  | DTF + 2.66%           | 2,83%  | 7.344         | 5                    | 7.349        | 9,57%  | 7.344         | 138                  | 7.482        |
| EDEQ             | AV VILLAS             | COP               | 23/06/2016   | 7,00  | IBR + 3.10%           | 10,67% | 2.999         | 25                   | 3.024        | 12,73% | 3.000         | 10                   | 3.010        |
| EDEQ             | AV VILLAS             | COP               | 15/09/2017   | 7,00  | IBR + 3.10%           | 7,85%  | 6.000         | 16                   | 6.016        | -      | -             | -                    | -            |
| ESSA             | Banco de Bogotá       | COP               | 26/02/2013   | 7,00  | IBR + 1.88%           | 6,17%  | 50.400        | 512                  | 50.912       | 8,66%  | 72.800        | 1.419                | 74.219       |
| ESSA             | Banco de Bogotá       | COP               | 11/04/2013   | 7,00  | IBR + 1.88%           | 6,27%  | 18.250        | 337                  | 18.587       | 8,79%  | 25.550        | 748                  | 26.298       |

| Entity               | Entity or loan                          | Original currency | Initial date | Term  | Nominal interest rate | 2017  |               |                      |              | 2016   |               |                      |              |
|----------------------|-----------------------------------------|-------------------|--------------|-------|-----------------------|-------|---------------|----------------------|--------------|--------|---------------|----------------------|--------------|
|                      |                                         |                   |              |       |                       | IRR   | Nominal value | Amortized cost value | Total amount | IRR    | Nominal value | Amortized cost value | Total amount |
| ESSA                 | Banco de Bogotá                         | COP               | 20/05/2013   | 7,00  | IBR + 1.88%           | 6,07% | 3.500         | 46                   | 3.546        | 8,57%  | 4.900         | 113                  | 5.013        |
| ESSA                 | Banco de Bogotá                         | COP               | 10/04/2014   | 7,00  | IBR + 1.88%           | 6,31% | 12.600        | 242                  | 12.842       | 8,90%  | 16.200        | 482                  | 16.682       |
| ESSA                 | Banco de Bogotá                         | COP               | 16/04/2014   | 7,00  | IBR + 1.88%           | 6,36% | 7.000         | 122                  | 7.122        | 8,94%  | 9.000         | 247                  | 9.247        |
| ESSA                 | Banco de Bogotá                         | COP               | 30/04/2015   | 7,00  | IBR + 1.88%           | 6,53% | 11.700        | 143                  | 11.843       | 9,16%  | 13.000        | 278                  | 13.278       |
| ESSA                 | Banco de Bogotá                         | COP               | 27/01/2016   | 7,00  | IBR + 1.88%           | 6,62% | 15.000        | 162                  | 15.162       | 9,50%  | 15.000        | 278                  | 15.278       |
| ESSA                 | Banco de Bogotá                         | COP               | 16/02/2016   | 7,00  | IBR + 1.88%           | 6,68% | 13.000        | 105                  | 13.105       | 9,37%  | 13.000        | 161                  | 13.161       |
| ESSA                 | Banco de Bogotá                         | COP               | 28/03/2016   | 7,00  | IBR + 1.88%           | 6,38% | 7.000         | 32                   | 7.032        | 9,35%  | 7.000         | 16                   | 7.016        |
| ESSA                 | Banco de Bogotá                         | COP               | 14/04/2016   | 7,00  | IBR + 1.88%           | 6,66% | 8.500         | 103                  | 8.603        | 9,45%  | 8.500         | 178                  | 8.678        |
| ESSA                 | Banco de Bogotá                         | COP               | 1/07/2016    | 12,00 | IBR + 4.50%           | 9,41% | 20.000        | 404                  | 20.404       | 12,23% | 20.000        | 601                  | 20.601       |
| ESSA                 | Banco de Bogotá                         | COP               | 28/08/2016   | 12,00 | IBR + 4.50%           | 9,35% | 8.000         | 74                   | 8.074        | 12,25% | 8.000         | 108                  | 8.108        |
| ESSA                 | Banco de Bogotá                         | COP               | 13/10/2016   | 12,00 | IBR + 4.50%           | 9,42% | 9.000         | 149                  | 9.149        | 12,23% | 9.000         | 229                  | 9.229        |
| ESSA                 | Banco de Bogotá                         | COP               | 11/11/2016   | 12,00 | IBR + 4.50%           | 9,42% | 35.000        | 298                  | 35.298       | 12,23% | 35.000        | 560                  | 35.560       |
| ESSA                 | Banco de Bogotá                         | COP               | 5/12/2016    | 12,00 | IBR + 4.50%           | 9,42% | 8.000         | 16                   | 8.016        | 12,25% | 8.000         | 66                   | 8.066        |
| ESSA                 | Banco de Bogotá                         | COP               | 14/12/2016   | 12,00 | IBR + 4.50%           | 9,42% | 15.000        | 11                   | 15.011       | 12,25% | 15.000        | 81                   | 15.081       |
| ESSA                 | Banco de Bogotá                         | COP               | 11/01/2017   | 12,00 | IBR + 4.50%           | 9,42% | 15.000        | 258                  | 15.258       | 0,00%  | -             | -                    | -            |
| ESSA                 | Banco de Bogotá                         | COP               | 16/01/2017   | 12,00 | IBR + 4.50%           | 9,42% | 10.000        | 158                  | 10.158       | 0,00%  | -             | -                    | -            |
| ESSA                 | Banco de Bogotá                         | COP               | 15/05/2017   | 12,00 | IBR + 4.50%           | 9,36% | 10.000        | 100                  | 10.100       | -      | -             | -                    | -            |
| ESSA                 | Banco BBVA                              | COP               | 14/06/2017   | 12,00 | IBR + 3.56%           | 8,47% | 10.000        | 22                   | 10.022       | -      | -             | -                    | -            |
| ESSA                 | Banco BBVA                              | COP               | 29/06/2017   | 12,00 | IBR + 3.56%           | 8,32% | 8.000         | 47                   | 8.047        | -      | -             | -                    | -            |
| ESSA                 | Banco BBVA                              | COP               | 13/07/2017   | 12,00 | IBR + 3.56%           | 8,48% | 10.000        | 174                  | 10.174       | -      | -             | -                    | -            |
| ESSA                 | Banco BBVA                              | COP               | 28/09/2017   | 12,00 | IBR + 3.56%           | 8,46% | 15.000        | (5)                  | 14.995       | -      | -             | -                    | -            |
| ESSA                 | Banco BBVA                              | COP               | 12/10/2017   | 12,00 | IBR + 3.56%           | 8,47% | 5.000         | 90                   | 5.090        | -      | -             | -                    | -            |
| ESSA                 | Banco BBVA                              | COP               | 30/10/2017   | 12,00 | IBR + 3.56%           | 8,46% | 5.000         | 69                   | 5.069        | -      | -             | -                    | -            |
| ESSA                 | Banco BBVA                              | COP               | 29/11/2017   | 12,00 | IBR + 3.56%           | 8,29% | 7.000         | 49                   | 7.049        | -      | -             | -                    | -            |
| ESSA                 | Banco BBVA                              | COP               | 11/12/2017   | 12,00 | IBR + 3.56%           | 8,44% | 4.000         | 18                   | 4.018        | -      | -             | -                    | -            |
| ESSA                 | Banco BBVA                              | COP               | 14/12/2017   | 12,00 | IBR + 3.56%           | 8,44% | 14.000        | 53                   | 14.053       | -      | -             | -                    | -            |
| ESSA                 | Banco BBVA                              | COP               | 26/12/2017   | 12,00 | IBR + 3.56%           | 8,44% | 90.000        | 100                  | 90.100       | -      | -             | -                    | -            |
| ESSA                 | Banco de Bogotá                         | COP               | 26/12/2017   | 12,00 | IBR + 3.15%           | 7,88% | 10.000        | 10                   | 10.010       | -      | -             | -                    | -            |
| AGUAS DE ANTOFAGASTA | Banco del Estado                        | CLP               | 23/10/2014   | 5,00  | UF + 1.90%            | 1,04% | 19.283        | 64                   | 19.347       | 1,04%  | 25.853        | 238                  | 26.091       |
| AGUAS DE ANTOFAGASTA | Banco del Estado                        | CLP               | 14/01/2015   | 10,00 | UF + 2.90%            | 1,51% | 173.169       | 2.404                | 175.573      | 1,51%  | 174.691       | 3.351                | 178.042      |
| AGUAS DE ANTOFAGASTA | Banco del Estado                        | CLP               | 4/09/2015    | 2,00  | TAB + 0.25%           | 4,64% | 662.372       | 1.528                | 663.901      | 4,51%  | 611.580       | 1.268                | 612.848      |
| AGUAS DE ANTOFAGASTA | Scotiabank                              | CLP               | 4/09/2015    | 2,00  | TAB + 0.25%           | 4,51% | 662.372       | 1.528                | 663.901      | 4,51%  | 611.580       | 1.268                | 612.848      |
| AGUAS DE ANTOFAGASTA | Banco BICE-BCI                          | CLP               | 10/06/2016   | -     | 0.41%-0.39%           | 0,00% | -             | -                    | -            | 0,00%  | 8.183         | -                    | 8.183        |
| DEL SUR              | Banco Davivienda                        | USD               | 26/08/2013   | 10,00 | 3.70%                 | 1,02% | 57.815        | 7                    | 57.822       | 1,02%  | 65.641        | 18                   | 65.659       |
| DEL SUR              | Banco Davivienda                        | USD               | 7/10/2015    | 10,00 | 4.20%                 | 1,02% | 44.760        | 671                  | 45.431       | 1,02%  | 45.011        | 471                  | 45.481       |
| DEL SUR              | Bonos                                   | USD               | 16/08/2010   | 10,00 | 5,00%                 | 1,52% | 62.664        | 327                  | 62.991       | 1,52%  | 63.015        | 413                  | 63.428       |
| GRUPO DECA           | Banco Industrial, S.A.                  | GTQ               | 29/10/2012   | 10,00 | PPA - 6.56%           | 6,95% | 144.111       | (986)                | 143.125      | 6,96%  | 169.771       | (1.172)              | 168.599      |
| GRUPO DECA           | Banco G&T Continental, S.A.             | GTQ               | 29/10/2012   | 10,00 | PPA - 6.56%           | 6,95% | 93.687        | (649)                | 93.038       | 6,97%  | 110.321       | (778)                | 109.542      |
| GRUPO DECA           | Banco Reformador, S.A.                  | GTQ               | 29/10/2012   | 10,00 | PPA - 6.56%           | 6,78% | 36.704        | (103)                | 36.600       | 6,98%  | 44.010        | (300)                | 43.710       |
| GRUPO DECA           | Banco Internacional, S.A.               | GTQ               | 29/07/2011   | 10,00 | PPA - 6.00%           | 7,51% | 7.661         | (36)                 | 7.626        | 7,65%  | 9.401         | (69)                 | 9.332        |
| GRUPO DECA           | Banco Agromercantil de Guatemala, S.A.  | GTQ               | 29/10/2012   | 10,00 | PPA - 6.56%           | 6,81% | 50.784        | (184)                | 50.601       | 6,98%  | 59.823        | (424)                | 59.399       |
| GRUPO DECA           | Banco Industrial, S.A.                  | USD               | 20/11/2014   | 10,00 | PPA - 1.56%           | 4,51% | 74.600        | 52                   | 74.652       | 4,48%  | 75.004        | 2                    | 75.006       |
| GRUPO DECA           | Banco de Desarrollo Rural, S.A.         | USD               | 14/12/2014   | 5,00  | PPA - 1.20%           | 4,89% | 29.840        | 21                   | 29.861       | 4,85%  | 30.002        | (2)                  | 30.000       |
| GRUPO DECA           | Banco de América Central, S.A.          | USD               | 20/11/2014   | 10,00 | PPA - 1.50%           | 4,58% | 29.840        | 21                   | 29.861       | 4,54%  | 30.002        | (1)                  | 30.001       |
| GRUPO DECA           | Banco Internacional, S.A.               | USD               | 4/12/2014    | 10,00 | PPA - 1.50%           | 4,58% | 8.952         | 7                    | 8.959        | 4,54%  | 9.000         | (0)                  | 9.000        |
| GRUPO DECA           | Línea de Crédito BAC                    | USD               | 22/05/2017   | 3,00  | PPA - 1.50%           | 4,55% | 29.840        | (0)                  | 29.840       | -      | -             | -                    | -            |
| GRUPO DECA           | Línea de Crédito G&T                    | USD               | 27/04/2017   | 3,00  | PPA - 1.50%           | 4,55% | 41.776        | (0)                  | 41.776       | -      | -             | -                    | -            |
| GRUPO DECA           | Línea de Crédito Banco Reformador, S.A. | USD               | 17/08/2017   | 3,00  | PPA - 1.50%           | 4,55% | 44.760        | (0)                  | 44.760       | -      | -             | -                    | -            |
| ENSA                 | Bonos senior                            | USD               | 10/07/2006   | 15,00 | TASA FIJA + 7.6%      | 8,16% | 298.400       | 6.813                | 305.213      | 8,16%  | 300.071       | 5.959                | 306.030      |
| ENSA                 | Bonos corporativos                      | USD               | 20/10/2008   | 10,00 | LIBOR + 2.38%         | 0,00% | -             | -                    | -            | 3,46%  | 60.014        | 597                  | 60.611       |
| ENSA                 | Bonos (Private Placement)               | USD               | 13/12/2012   | 15,00 | TASA FIJA + 4.73%     | 3,46% | 238.720       | (2.561)              | 236.159      | 4,96%  | 240.057       | (2.813)              | 237.244      |
| ENSA                 | Banco Nacional de Panamá                | USD               | 22/12/2015   | 1,00  | LIBOR + 2.00%         | 0,00% | -             | -                    | -            | -      | -             | -                    | -            |
| ENSA                 | Banco Nacional de Panamá                | USD               | 22/12/2016   | 0,08  | LIBOR + 1.45%         | 0,00% | -             | -                    | -            | 1,45%  | 51.012        | 65                   | 51.077       |
| ENSA                 | Banco Nacional de Panamá                | USD               | 27/12/2016   | 0,08  | LIBOR + 1.45%         | 3,46% | -             | -                    | -            | 1,45%  | 60.014        | (54)                 | 59.961       |

| Entity       | Entity or loan                             | Original currency | Initial date | Term  | Nominal interest rate | 2017   |                   |                      |                   | 2016     |                   |                      |                   |
|--------------|--------------------------------------------|-------------------|--------------|-------|-----------------------|--------|-------------------|----------------------|-------------------|----------|-------------------|----------------------|-------------------|
|              |                                            |                   |              |       |                       | IRR    | Nominal value     | Amortized cost value | Total amount      | IRR      | Nominal value     | Amortized cost value | Total amount      |
| ENSA         | Banco Davivienda                           | USD               | 21/12/2016   | 0,08  | LIBOR + 1.4%          | 2,00%  | 53.712            | 485                  | 54.197            | 1,40%    | 90.021            | 35                   | 90.056            |
| ENSA         | Banistmo                                   | USD               | 4/12/2016    | 0,08  | LIBOR + 1.45%         | 0,00%  | -                 | -                    | -                 | 1,45%    | 45.011            | 44                   | 45.054            |
| ENSA         | Banco Davivienda                           | USD               | 21/06/2017   | 0,58  | LIBOR + 2.00%         | 0,00%  | 5.968             | 54                   | 6.022             | -        | -                 | -                    | -                 |
| ENSA         | Banco Davivienda                           | USD               | 14/12/2017   | 0,49  | LIBOR + 2.00%         | 2,00%  | 29.840            | 28                   | 29.868            | -        | -                 | -                    | -                 |
| ENSA         | Scotiabank                                 | USD               | 9/10/2017    | 0,41  | LIBOR + 1.89%         | 1,89%  | 59.680            | 63                   | 59.743            | -        | -                 | -                    | -                 |
| ENSA         | Scotiabank                                 | USD               | 16/10/2017   | 0,49  | LIBOR + 1.98%         | 1,98%  | 59.680            | 43                   | 59.723            | -        | -                 | -                    | -                 |
| ENSA         | Scotiabank                                 | USD               | 6/12/2017    | 0,49  | LIBOR + 1.95%         | 1,95%  | 44.760            | 61                   | 44.821            | -        | -                 | -                    | -                 |
| ENSA         | Scotiabank                                 | USD               | 11/12/2017   | 0,49  | LIBOR + 1.95%         | 1,95%  | 14.920            | 16                   | 14.936            | -        | -                 | -                    | -                 |
| ENSA         | Citibank                                   | USD               | 7/08/2017    | 0,49  | LIBOR + 2.00%         | 2,00%  | 38.792            | 58                   | 38.850            | -        | -                 | -                    | -                 |
| ENSA         | Citibank                                   | USD               | 8/11/2017    | 0,49  | LIBOR + 1.94%         | 1,94%  | 35.808            | 39                   | 35.847            | -        | -                 | -                    | -                 |
| ENSA         | Banco Latinoamericano de Comercio Exterior | USD               | 5/12/2017    | 0,17  | LIBOR + 1.65%         | 1,65%  | 38.792            | 44                   | 38.836            | -        | -                 | -                    | -                 |
| TICSA        | Banco del Bajío (Ecosistema de Tuxtla)     | MXN               | 31/07/2013   | 14,67 | TIIE + 2.75%          | 8,73%  | 64.334            | (2.356)              | 61.978            | 9,08%    | 65.740            | (5.048)              | 60.692            |
| TICSA        | Bank of América                            | MXN               | 12/04/2017   | 1,00  | TIIE + 1.75%          | 6,11%  | 63.186            | -                    | 63.186            | 6,11%    | 60.345            | -                    | 60.345            |
| TICSA        | Banobras (Ecoagua de Torreón)              | MXN               | 1/09/2001    | 15,50 | 8.28%                 | 0,00%  | -                 | -                    | -                 | 11,22%   | 815               | 4                    | 819               |
| TICSA        | FIDE (Aguasol Morelia)                     | MXN               | 9/12/2015    | 3,00  | + 0%                  | 8,69%  | 468               | -                    | 468               | 8,69%    | 829               | (9)                  | 820               |
| TICSA        | Interacciones (Ecoagua de Torreón (F/851)) | MXN               | 1/05/2011    | 8,00  | TIIE + 3.90%          | 8,16%  | 6.084             | 114                  | 6.198             | 11,22%   | 10.709            | (382)                | 10.327            |
| TICSA        | Interacciones (Ecosistema de Lerdo)        | MXN               | 1/08/2007    | 15,33 | TIIE + 3.00%          | 7,60%  | 27.347            | (1.155)              | 26.191            | 7,68%    | 29.025            | (196)                | 28.829            |
| TICSA        | Santander                                  | MXN               | 10/06/2016   | 1,00  | TIIE + 3.50%          | 0,00%  | -                 | -                    | -                 | 6,76%    | 2.112             | 10                   | 2.122             |
| TICSA        | Santander (Aguasol Morelia)                | MXN               | 14/06/2016   | 7,00  | TIIE + 2.15%          | 11,45% | 40.110            | (215)                | 39.895            | 9,46%    | 45.001            | (540)                | 44.461            |
| TICSA        | Santander (Ecosistema de Celaya)           | MXN               | 14/06/2016   | 14,00 | TIIE + 2.15%          | 12,02% | 18.149            | (98)                 | 18.051            | 10,09%   | 18.101            | (322)                | 17.779            |
| TICSA        | Santander (Ecosistema de Colima)           | MXN               | 14/06/2016   | 10,00 | TIIE + 2.15%          | 11,34% | 52.998            | (529)                | 52.469            | 9,41%    | 53.568            | (1.028)              | 52.541            |
| TICSA        | Santander                                  | MXN               | 30/05/2017   | 1,00  | TIIE + 3.00%          | 6,76%  | 4.347             | -                    | 4.347             | -        | -                 | -                    | -                 |
| EP RIO       | Banco de Bogotá                            | COP               | 19/10/2015   | 10,00 | DTF + 5.00%           | 11,01% | 10.397            | 56                   | 10.453            | -        | -                 | -                    | -                 |
| -            | Ajustes PPA y Otros                        | -                 | -            | -     | -                     | -      | -                 | -                    | -                 | -        | -                 | -                    | (14.236)          |
| <b>Total</b> |                                            |                   |              |       |                       |        | <b>16.750.112</b> | <b>208.611</b>       | <b>16.958.723</b> | <b>-</b> | <b>14.666.655</b> | <b>195.589</b>       | <b>14.848.007</b> |

Amounts expressed in millions of Colombian pesos

Interests paid for credit operations as of December 31, 2017 were \$ 1,013,853 (2016: \$ 1,041,381).

The difference in net change (profit) as of December 31, 2017 assumed associated with the debt was for \$ 59,730 (2016: \$ 275,822).

The information on the bonds issued is as follows:



**In 2017 the following credit developments took place in the EPM Group:**

**For EPM Parent the following credit developments took place:**

In July of 2017, EPM Parent obtained a treasury credit for 35,000 granted by Empresas Varias de Medellin at a rate of DTF (Fixed Term Deposit benchmark rate) plus 2.44% and a term of 1 year.

On August 15, 2017 the amortization of IADB credit 2217 was completed, which was intended to finance the social financing program.

In November 2017, EPM made carried out a debt management operation through the placement of bonds in the international capital market for \$2.3 billion, equivalent to USD764 million, carried out on October 31, with a rate of 8.375% and a 10 year term, intended to partial prepayment of the Club Deal credit with the international banks for \$2,315,609 (USD765 million), with expiration on 2020.

In December 2017 EPM Parent obtained a treasury credit to finance the cash flow for \$200,000, granted by Banco Colpatría at a rate of IBR plus 1.65% and a term of 1 year.

In December 2017 EPM Parent obtained a treasury credit to finance the cash flow for \$100,000, granted by Banco Popular at a rate of IBR plus 1.80% and a term of 1 year.

On December 29, 2017 the company signed a credit agreement for USD1,000 million IDB Invest, private sector of the Inter American Development Bank, which will be intended to the partial financial of the Ituango Hydroelectric project. It is a credit with A/B structure in which the IDB group participates in trench A, a relevant group of international commercial banks and institutional investors of North America, Europe and Asia (CDPQ, KFW IPEX, BNP Paribas, ICBC, Sumitomo Mitsui, BBVA and Banco Santander) fund trench B. Additionally, the credit includes resources from the China Fund - China co-financing fund managed by IDB invest. The financing has a total term of 12 years for trench A and for the resources contributed by the China Fund; trench B has terms of 8 and 12 years. The resources will be disbursed gradually during 4 years that is the period of disbursement.

Conversion to pesos of credit denominated in U.S. dollars: some of the credits of the IADB have the possibility of currency conversion, which permits the conversion to the Colombia peso of the balance in U.S. dollars, eliminating the exchange risk of the balance exposed. EPM on December 8 applied a monetary conversion to the credit BID 2120 for USD68.3 million.

The new long term credits and loans of the company were acquired in order to finance partially the Ituango Hydroelectric project and the general investments plan.

**Central de Energía Norte de Santander (CENS) contracted the following loans, as follows:**

In the first quarter with Banco Davivienda a long term credit was disbursed on January 13, 2017 for \$11,000 with a term of 10 years, 2 years of grace and a rate of IBR+ 4.89%, principal payable every half year in arrears. Banco de Bogota disbursed 3 transitory credits, on January 16, 2017 for \$25,315, at a term of 4 months and a rate of CPI + 2.85% and on March 24, 2017 for \$11,145, at a term of 4 months and a rate of CPI + 2.85%.

In the second quarter with Banco Popular, 4 credits were disbursed, on May 15, 2017 for \$37,241 at a term of 10 years and a rate of IBR+4.35%; on May 26 for \$8,540 at a term of 10 years and a rate of IBR+4.35%; on June 23 for \$6,505 at a term of 10 years and a rate of IBR+4.35% and on June 29 for \$10,162 at a term of 10 years and a rate of IBR+4.35%.

In the third quarter with Banco Popular, 6 credits were disbursed, on July 18 for \$14,951 at a term of 10 years and a rate of IBR+4.35%; on July 27 for \$6,500 at a term of 10 years and a rate of IBR+4.35%; on August 23 for \$6,000 at a term of 10 years and a rate of IBR+4.35%; on September 15 for \$6,442 at a term of 10 years and at a rate of IBR+4.35%; on September 19 for \$5,923 at a term of 12 years and at a rate of IBR-1.80% and September 19 for \$11,846 at a term of 10 years and a rate of IBR+4.35%.

In the fourth quarter with Banco Popular 4 credits were disbursed, on November 17 for \$9,659 at a term of 10 years and a rate of IBR+4.35%; on November 17 for \$4,077 at a term of 12 years and a rate of IBR-



1.80%; on November 17 for \$8,154 at a term of 10 years and a rate of IBR+4.45% and on December 18 for \$20,000 at a term of 10 years and a rate of IBR+4.35%.

**Electrificadora de Santander (ESSA) obtained the following loans:**

In the first quarter 2 long term loans were disbursed with Banco de Bogota, as follows: on January 11, 2017 for \$15,000 at a term of 12 years, 2 years of grace and a rate of IBR+4.5%; on January 16, 2017 for \$10,000 at a term of 12 years, 2 years of grace and a rate of IBR+4.5%.

In the second quarter long term loans were disbursed as follows: with Banco de Bogota on May 15, 2017 for \$10,000 at a term of 12 years, 2 years of grace and a rate of IBR+4.5%; with BBVA in the month of June for \$18,000 at a term of 12 years, 2 years of grace and a rate of IBR+3.56% and transitory credits were disbursed for \$50,000 in the month of April with a rate of IBR+2% and a term of 3 months with Banco Popular.

In the third quarter with BBVA on July 13, for \$10,000 at a term of 12 years, 2 years of grace and a rate of IBR+3.56%; with BBVA on September 28, for \$15,000 at a term of 12 years, 2 years of grace and a rate of IBR+3.56%.

Electrificadora de Santander (ESSA) renewed the transitory credits for \$50,000 with Banco Popular until the month of December 2017.

In the fourth quarter it disbursed 3 loans with BBVA for \$4,000, \$14,000 and \$90,000 at a term of 12 years, 2 years of grace and at a rate of IBR +3.56% and a loan was disbursed with Banco de Bogota for \$10,000 at a term of 12 years, 2 years of grace and a rate of IBR +3.15%.

**Empresas de Energía del Quindío (EDEQ) contracted the following credits as follows:**

In the third quarter a loan was disbursed with Banco America Central on May 22 for USD10 at a rate of PPA + 1.5% and on April 27 a loan was disbursed with Banco G&T Reformador at a rate of PPA +1.5%.

In the third quarter a loan with Banco AV Villas was disbursed on September 15 for \$6,000 at a term of 7 years, 2 years of grace and a rate of IBR+ 3.10%.

**DECA Group contracted the following loans, as follows:**

In the second quarter a loan with Banco America Central was disbursed on May 22, for USD 10 at a rate of PPA 1.5% and disbursed a loan with Banco G&T Reformador was disbursed on April 27 for USD14 at a rate of PPA +1.5%.

In the third quarter a loan with Banco America Central was disbursed on May 22 for USD10 at a rate of PPA + 1.5% and disbursed a loan with Banco G&T Continental on April 27 for USD14 at a rate of PPA + 1.5%.

In the third quarter loan was disbursed on August 17 for USD15 with Banco Reformador at a rate of PPA +1.5%.

**Empresa de distribución de energía del noreste de Panamá (ENSA) contracted the following loans, as follows:**

In the first quarter 4 short-term loans were disbursed as follows: on February 20 USD30 at a rate of LIBOR + 1.75% at a term of 3 months; on March 8 USD25 at a rate of LIBOR + 1.45% at a term of 5 months; on March 8 USD25 at a rate of LIBOR + 1.55% a term of 3 months and on March 27 USD10 at a rate of LIBOR + 1.75 and a term of 1 months.

In the second quarter 3 short term credits were disbursed as follows: on May 10 USD14.6 at a rate of LIBOR + 1.40% at a term of 4 months; on June 1 USD10 at a rate of LIBOR + 2.00% at a term of 6 months and on June 21 USD 2 at a rate of LIBOR + 1.60% at a term of 1 months.

In the third quarter 5 short term loans were disbursed as follows: on July 10 USD2 at a rate of LIBOR + 1.60%; on August 7 USD 13 at a rate of LIBOR + 2.00%; on August 9 USD10 at a rate of LIBOR + 1.60%; on August 14 USD25 at a rate of LIBOR + 1.87% and on September 7 USD11 at a rate of LIBOR + 1.60%

In the fourth quarter 7 short term loans were disbursed as follows: on October 9 USD20 at a rate of LIBOR + 1.89%; on October 16 USD20 at a rate of LIBOR + 1.98%; on November 8 USD 12 at a rate of LIBOR + 1.94%; on December 5 USD13 at a rate of LIBOR + 1.65%, on December 6 USD15 at a rate of LIBOR + 1.95%, on December 11 USD5 at a rate of LIBOR + 1.95% and on December 14 USD10 at a rate of LIBOR + 2%.

#### Debt covenant / EBITDA

EPM Group has active a financial covenant, measured in the ratio long term financial debt to EBITDA, calculated on the basis of the consolidated figures of the EPM Group, of maximum 3.5 times, in the credit contracts: French Development Agency - AFD, Inter-American Development Bank - BID 1664, and Guarantee from Japan Bank for International Cooperation -JBIC a credit with the Japanese commercial bank. In addition, it has agreed this credit, but inactive, to count with double degree of investment, in the international bond issue with expiration in 2019.

At December 31, 2017 the result of the indicator was of 3.43 times, giving contractual compliance.

As of December 2016 the result of the indicator was 3.69 times. This result is due to the emergence of conjunctural circumstances that affected the EBITDA due to the materialization of the "El Niño" climatic phenomenon, in addition to macroeconomic aspects that affected The long-term debt denominated in dollars during 2015. Contractually, one of the schemes to avoid that this fact will become a nonfulfillment is that the banks grants a waiver, which were requested and obtained in a timely manner.

#### Non-compliance

During the accounting period, the EPM Group has not failed the payment of the principal and the interest of its loans.

## Note 22. Creditors and other accounts payable.

Creditors and other accounts payable consist of:

| Creditors and other accounts payable                          | 2017             | 2016             |
|---------------------------------------------------------------|------------------|------------------|
| <b>Non-current</b>                                            |                  |                  |
| Creditors                                                     | 174.746          | 146.722          |
| Adquisition of goods and services                             | 29.910           | 2.121            |
| Insurance and reinsurance operations                          | -                | 24.048           |
| Deposits received under guarantee                             | 15.430           | 105.319          |
| Advances and advances received                                | 435              | -                |
| Resources received in administration                          | 23.530           | 34.273           |
| Construction contracts                                        | 20.479           | 17.307           |
| <b>Total creditors and other non-current accounts payable</b> | <b>264.530</b>   | <b>329.790</b>   |
| <b>Current</b>                                                |                  |                  |
| Creditors                                                     | 939.867          | 493.194          |
| Adquisition of goods and services                             | 1.643.403        | 1.573.205        |
| Insurance and reinsurance operations                          | -                | 8.998            |
| Assigned grants                                               | 3.415            | 4.247            |
| Deposits received under guarantee <sup>(1)</sup>              | 221.777          | 118.794          |
| Advances and advances received recibidos                      | 55.959           | 51.594           |
| Resources received in administration                          | 50.043           | 25.627           |
| Other accounts payable                                        | 981              | 24.690           |
| Construction contracts                                        | 30.848           | 26.152           |
| Commissions payable                                           | 2.110            | 2.110            |
| <b>Total creditors and other accounts payable current</b>     | <b>2.948.403</b> | <b>2.328.611</b> |
| <b>Total creditors and other accounts payable</b>             | <b>3.212.933</b> | <b>2.658.401</b> |

- Amounts expressed in millions of Colombian pesos -

<sup>(1)</sup> In Guatemala the General Law of Electricity establishes that every new user must deliver to the distributor a payment guarantees. This guarantee may be given in monetary form or through a bond and will be calculated for each user category as the amount equivalent to two average monthly invoices of a typical user of his same category. EEGSA collects from its customers such guarantees and records the amounts received as “Deposits from Consumers”. According to the provisions of the General Law of Electricity, Decree No. 93-96 of November 15, 1996, article 94, from that date until March 10, 2007, the deposits received from customers earned actual interest of 5% annually. As of March 11, 2007 the deposits received must be refunded adding to the capital the active average monthly weighed interest rate of the banking systems. It also establishes that, upon termination of the contract, the distributor must make a liquidation that includes the initial amount of the guarantee plus the total of the interest earned and capitalized each year less the debts outstanding and costs that the user would have caused.

As of December 31, 2006, EEGSA records a provision for the amount of the interest originated by the payment guarantees.

The deposits received from consumers, plus the interest earned and less any debt outstanding for past services, are reimbursable to the users when they cease to use the electric energy service provided by EEGSA. The latter has classified these deposits as current liabilities on the basis that it does not have legal rights to defer this payment in a period in excess of one year. However, the company does not anticipate making significant payments in the coming year, in accordance with the estimates and recurrence of the retirement of customers, in addition to the premise of the going concern within the financial statements, EEGSA has a provision to respond to the events that may arise, which covers the interest earned at the closing of the year.

As of December 31, 2017, the amount of consumer deposits was \$ 205,312 (2016: \$ 86,501)

The term for payment to suppliers is generally 30 calendar days, with exceptions that are documented in the processes and determined among others, by the type of obligation and contract

#### Non-compliance

During the accounting period, the Group has not failed to pay the principal and / or interest of creditors and other accounts payable.

## Note 23. Other financial liabilities

The other financial liabilities consist of:

| Other financial liabilities                                     | 2017           | 2016           |
|-----------------------------------------------------------------|----------------|----------------|
| <b>Non-Current</b>                                              |                |                |
| Financial leases                                                | 195.330        | 196.308        |
| Pension bonds <sup>(1)</sup>                                    | 320.636        | 336.483        |
| Derivatives that are not under accounting hedge                 | 3.590          | -              |
| Derivatives for the purpose of hedging cash flows (see note 24) | 18.914         | 2.032          |
| <b>Total other non-current financial liabilities</b>            | <b>538.470</b> | <b>534.823</b> |
| <b>Current</b>                                                  |                |                |
| Financial leases                                                | 1.161          | 906            |
| Pension bonds <sup>(1)</sup>                                    | 320.083        | 289.136        |
| Derivatives that are not under accounting hedge                 | 10.266         | -              |
| Derivatives for the purpose of hedging cash flows (see note 24) | 33.368         | 68.919         |
| <b>Total other current financial liabilities</b>                | <b>364.878</b> | <b>358.961</b> |
| <b>Total other financial liabilities</b>                        | <b>903.348</b> | <b>893.784</b> |

Amounts expressed in millions of Colombian pesos -

<sup>(1)</sup> The variation was generated by the amortized cost and the payments made during the period.

Conventional purchases and sales of financial liabilities are accounted for applying the negotiation date.

The Group has not designated financial liabilities at fair value with changes in profit and loss.

**Non-compliance**

During the accounting period, the EPM Group has not failed in the payment of the principal and interests on its loans

## Note 24. Derivatives and hedge accounting

The Group has the following types of cash flow hedges, whose fair values as of December 31, 2017 amount to \$ 38,131 (2016: \$ 70,951).

| Hedging Classification   | Description         | Risk Covered                                                        | Trench                                | Item Covered                          | Book value of Item covered | Book value of Hedging instrument | Changes in fair value of hedging instrument in the period | Changes in fair value of item covered in the period | Inefficacy of hedging recognized in the profit and loss of period | Efficacy of hedging recognized in other comprehensive income | Reclassification of other comprehensive income to profit and loss for the period <sup>1</sup> |
|--------------------------|---------------------|---------------------------------------------------------------------|---------------------------------------|---------------------------------------|----------------------------|----------------------------------|-----------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Cash flow hedging</b> |                     |                                                                     |                                       |                                       |                            |                                  |                                                           |                                                     |                                                                   |                                                              |                                                                                               |
| Swaps                    | Cross Currency Swap | Exchange rate USD/COP and interest rate Libor/fixed of debt service | Part of the Club Deal and AFD credits | Credit in U.S. dollars                | 1.552.345                  | 38.131                           | 52.076                                                    | 4.294                                               | N.A                                                               | 52.076                                                       | 3.865                                                                                         |
| Futures                  | Derivex             | Sale price in energy exchange                                       | N.A                                   | Sales of Energy highly probable entry | N.A                        | 97                               | 12.462                                                    | N.A                                                 | N.A                                                               | 12.462                                                       | 12.384                                                                                        |

- Amounts expressed in millions of Colombian pesos -

<sup>1</sup> The reclassification from other comprehensive Income to profit and loss for the period, for swap instruments affected the item of interest, exchange difference, exchange difference of interest and of capital of the right; and for instruments of forward contracts it affected the item of sales of energy in the exchange. Additionally, \$72,115 as costs for loans mainly to the Ituango project.

### Cash flow hedge

The characteristics of the main cash flow hedging instruments that are under hedge accounting are the following:

Swaps:

| Characteristics    |                         |                         |                               |                     |                     |                         |                         |                         |                         |                         |
|--------------------|-------------------------|-------------------------|-------------------------------|---------------------|---------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Underlying covered | Club Deal Credit        | Club Deal Credit        | Club Deal Credit              | Club Deal Credit    | Club Deal Credit    | AFD Credit              | AFD Credit              | AFD Credit              | AFD Credit              | AFD Credit              |
| Trench No.         | 2                       | 3                       | 8                             | 9                   | 12                  | 1                       | 2                       | 3                       | 4                       | 5                       |
| Closing date       | 24-may-16               | 26-may-16               | 20-jun-16                     | 8-jul-16            | 8-ago-16            | 3-feb-17                | 6-feb-17                | 10-feb-17               | 24-mar-17               | 30-mar-17               |
| Type Derivative    | CCS                     | CCS                     | CCS                           | CCS                 | CCS                 | CCS                     | CCS                     | CCS                     | CCS                     | CCS                     |
| Counterpart        | JP Morgan               | JP Morgan               | Bank of America Merrill Lynch | BNP Paribas         | BNP Paribas         | BNP Paribas             | BNP Paribas             | BNP Paribas             | CITI BANK               | CITI BANK               |
| Nominal (USD)      | 50.000.000              | 50.000.000              | 60.000.000                    | 40.000.000          | 30.000.000          | 64.750.000              | 47.381.250              | 85.312.500              | 13.164.375              | 85.312.500              |
| Spot exchange rate | 3.058                   | 3.053                   | 2.976                         | 2.965               | 2.990               | 2.850                   | 2.855                   | 2.850                   | 2.899                   | 2.878                   |
| Obligation (COP)   | 152.900.000.000         | 152.650.000.000         | 178.560.000.000               | 118.600.000.000     | 89.700.000.000      | 184.537.500.000         | 135.273.468.750         | 243.140.625.000         | 38.163.523.125          | 245.529.375.000         |
| EPM pays           | IBR + 2,17              | IBR + 2,17              | 9,30%                         | 8,42%               | 8,44%               | IBR + 0,83              | IBR + 0,33              | IBR + 0,69              | IBR + 0,379             | IBR + 0,479             |
|                    | IBR OIS compuesta 1 día | IBR OIS compuesta 1 día |                               |                     |                     | IBR OIS compuesta 1 día | IBR OIS compuesta 1 día | IBR OIS compuesta 1 día | IBR OIS compuesta 1 día | IBR OIS compuesta 1 día |
| EPM receives       | LIBOR 6 meses + 140     | LIBOR 6 meses + 140     | LIBOR 6 meses + 140           | LIBOR 6 meses + 140 | LIBOR 6 meses + 140 | Tasa fija 4,50%         | Tasa fija de 4,04%      | Tasa fija de 4,32%      | Tasa fija de 4,25%      | Tasa fija de 4,32%      |
| Maturity date      | 29-dic-20               | 29-dic-20               | 29-dic-20                     | 29-dic-20           | 29-dic-20           | 31-jul-22               | 31-jul-22               | 31-jul-22               | 31-jul-22               | 31-jul-22               |
| Initial exchange   | No                      | No                      | No                            | No                  | No                  | No                      | No                      | No                      | No                      | No                      |
| Final exchange     | Si                      | Si                      | Si                            | Si                  | Si                  | No                      | No                      | No                      | No                      | No                      |
| Modality           | Non Delivery            | Non Delivery            | Non Delivery                  | Non Delivery        | Non Delivery        | Non Delivery            | Non Delivery            | Non Delivery            | Non Delivery            | Non Delivery            |

\* CCS : Cross Currency Swap

The company had previously accounted for under hedge accounting the cash flow of two swap instruments for \$13,856 (2016: \$10,799), which are no longer expected to occur since the underlying risk was cancelled. Therefore, the company has reclassified \$1,628 (2016: \$-) from loss recognized in other comprehensive income to profit and loss for the period. These instruments have not been paid and are classified as financial instruments measured at fair value.

#### Advance termination of the hedge

The company had previously accounted for under hedge accounting the cash flow of six swap instruments for \$19,743 in 2016 which are no longer expected to occur since the underlying risk was cancelled. Therefore, the company has reclassified \$6,354 (2016: \$-) from profit recognized in other comprehensive result to profit and loss for the period. These instruments were cancelled in 2017. The characteristics of the operations cancelled are the following:

| Caracteristics                         | Trench 4                              | Trench 5                              | Trench 6                              | Trench 7                              | Trench 10           | Trench 13         |
|----------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------|-------------------|
| Date                                   | 3-jun-16                              | 3-jun-16                              | 7-jun-16                              | 8-jun-16                              | 12-jul-16           | 16-may-17         |
| Underlying covered                     | Crédito Club Deal                     | Crédito Club Deal                     | Crédito Club Deal                     | Crédito Club Deal                     | Crédito Club Deal   | Crédito Club Deal |
| Type of derivative                     | CCS                                   | CCS                                   | CCS                                   | CCS                                   | CCS                 | CCS               |
| Counterpart                            | Bank of America Merrill Lynch         | JP Morgan                             | Bank of America Merrill Lynch         | JP Morgan                             | BNP Paribas         | BNP Paribas       |
| Nominal (USD)                          | 50.000.000                            | 50.000.000                            | 50.000.000                            | 50.000.000                            | 50.000.000          | 50.000.000        |
| Spot exchange rate                     | \$ 3.025                              | \$ 2.997                              | \$ 2.945                              | \$ 2.907                              | \$ 2.907            | \$ 2.867          |
| Obligation (COP)                       | 151.250.000.000                       | 149.850.000.000                       | 147.250.000.000                       | 145.350.000.000                       | 145.350.000.000     | 143.350.000.000   |
| EPM pays                               | IBR + 2.16<br>IBR OIS compuesta 1 día | IBR + 2.20<br>IBR OIS compuesta 1 día | IBR + 2.25<br>IBR OIS compuesta 1 día | IBR + 2.19<br>IBR OIS compuesta 1 día | 8,55%               | 6,09%             |
| EPM receives                           | LIBOR 6 meses + 140                   | LIBOR 6 meses + 140                   | LIBOR 6 meses + 140                   | LIBOR 6 meses + 140                   | LIBOR 6 meses + 140 | LIBOR 6 meses     |
| Periodicity                            | Semestral                             | Semestral                             | Semestral                             | Semestral                             | Semestral           | Semestral         |
| Maturity date                          | 29-dic-20                             | 29-dic-20                             | 29-dic-20                             | 29-dic-20                             | 29-dic-20           | 29-dic-20         |
| Initial exchange                       | No                                    | No                                    | No                                    | No                                    | No                  | No                |
| Final exchange                         | Si                                    | Si                                    | Si                                    | Si                                    | Si                  | Si                |
| Cancellation date                      | 12-dic-17                             | 12-dic-17                             | 11-dic-17                             | 7-dic-17                              | 12-dic-17           | 15-nov-17         |
| Cancellation exchange rate             | \$ 3.030                              | \$ 3.020                              | \$ 3.016                              | \$ 3.015                              | \$ 3.030            | \$ 3.020          |
| EPM (Pays / Receives)                  | Paga                                  | Paga                                  | Paga                                  | Recibe                                | Paga                | Paga              |
| Value of the settlement reported (USD) | 2.060.000                             | 1.718.700                             | 810.000                               | 71.000                                | 2.338.860           | 100.070           |

\* CCS : Cross Currency Swap

### Implicit derivatives

The Group has not entered into contracts containing embedded derivatives.

## Note 25. Employee benefits

The item of employee benefits recognized at the reporting date have the following composition:

| Employee benefits                          | 2017             | 2016             |
|--------------------------------------------|------------------|------------------|
| <b>Non-Current</b>                         |                  |                  |
| Post-employment benefits                   | 763.749          | 744.047          |
| Long term benefits                         | 85.652           | 80.196           |
| Termination benefits                       | 157              | 2.205            |
| Other benefits                             | -                | 173              |
| <b>Total non-current employee benefits</b> | <b>849.558</b>   | <b>826.621</b>   |
| <b>Current</b>                             |                  |                  |
| Short-term benefits                        | 132.959          | 117.763          |
| Post-employment benefits                   | 105.000          | 101.722          |
| <b>Total benefits to current employees</b> | <b>237.959</b>   | <b>219.485</b>   |
| <b>Total</b>                               | <b>1.087.517</b> | <b>1.046.106</b> |

- Amounts expressed in millions of Colombian pesos

### 25.1. Post-employment benefits

It covers plans of defined benefits and the defined contributions plans detailed below:

#### 25.1.1. Defined benefit plans

| Defined benefits plans                                      | Pensions <sup>1</sup> |                  | Retroactive benefits <sup>2</sup> |                | Public utility subsidy <sup>3</sup> |               | Other defined benefit plans <sup>4</sup> |               | Total            |                  |
|-------------------------------------------------------------|-----------------------|------------------|-----------------------------------|----------------|-------------------------------------|---------------|------------------------------------------|---------------|------------------|------------------|
|                                                             | 2017                  | 2016             | 2017                              | 2016           | 2017                                | 2016          | 2017                                     | 2016          | 2017             | 2016             |
| <b>Present value of defined benefit obligations</b>         |                       |                  |                                   |                |                                     |               |                                          |               |                  |                  |
| Beginning balance                                           | 1.045.255             | 936.716          | 133.747                           | 122.552        | 44.215                              | 34.513        | 23.734                                   | 24.270        | 1.246.951        | 1.118.051        |
| Cost of the present service                                 | 7.335                 | 6.671            | 4.848                             | 4.705          | 227                                 | 193           | 3.309                                    | 3.233         | 15.719           | 14.802           |
| Interest income or (expense)                                | 63.430                | 64.235           | 9.228                             | 8.752          | 3.060                               | 2.490         | 250                                      | 446           | 75.968           | 75.923           |
| New Measurements                                            | -                     | -                | -                                 | -              | -                                   | -             | -                                        | 355           | -                | 355              |
| Assumptions by experience                                   | 30.323                | 48.138           | 2.104                             | 10.809         | (5.040)                             | 7.353         | (55)                                     | 30            | 27.332           | 66.330           |
| Demographic assumptions                                     | 862                   | -                | (28)                              | -              | (156)                               | -             | -                                        | -             | 678              | -                |
| Financial Assumptions                                       | 5.531                 | 58.709           | 7.007                             | 2.576          | 102                                 | 3.223         | (229)                                    | 7             | 12.411           | 64.515           |
| Past service cost                                           | 41                    | 1.138            | -                                 | -              | -                                   | -             | 534                                      | -             | 575              | 1.138            |
| Exchange rate difference                                    | 11.130                | 31.173           | -                                 | -              | 470                                 | (660)         | -                                        | (833)         | 11.600           | 29.680           |
| Contributions made to the plan                              | 101                   | (23.597)         | -                                 | (1.524)        | -                                   | (1.164)       | -                                        | (150)         | 101              | (26.435)         |
| Payments made by the plan                                   | (111.757)             | (77.694)         | (15.845)                          | (14.123)       | (2.693)                             | (1.733)       | (3.183)                                  | (3.624)       | (133.478)        | (97.174)         |
| Other changes                                               | (570)                 | (234)            | -                                 | -              | -                                   | -             | 1.575                                    | -             | 1.005            | (234)            |
| <b>Present value of obligation as of 31, december</b>       | <b>1.051.681</b>      | <b>1.045.255</b> | <b>141.061</b>                    | <b>133.747</b> | <b>40.185</b>                       | <b>44.215</b> | <b>25.935</b>                            | <b>23.734</b> | <b>1.258.862</b> | <b>1.246.951</b> |
| <b>Fair value of plan assets</b>                            |                       |                  |                                   |                |                                     |               |                                          |               |                  |                  |
| Beginning balance                                           | 401.182               | 375.616          | -                                 | -              | -                                   | -             | -                                        | -             | 401.182          | 375.616          |
| Contributions made to the plan                              | 10.149                | 4.396            | -                                 | -              | -                                   | -             | 6.406                                    | -             | 16.555           | 4.396            |
| Payments made by the plan                                   | (56.620)              | (60.090)         | -                                 | -              | -                                   | -             | (1.241)                                  | -             | (57.861)         | (60.090)         |
| Interest income                                             | 26.847                | 27.141           | -                                 | -              | -                                   | -             | 4                                        | -             | 26.851           | 27.141           |
| Actuarial gains or losses:                                  | -                     | 5.949            | -                                 | -              | -                                   | -             | -                                        | -             | -                | 5.949            |
| Expected return on plan (excluding interest income)         | 11.114                | 12.478           | -                                 | -              | -                                   | -             | -                                        | -             | 11.114           | 12.478           |
| Exchange rate difference                                    | -                     | 36.128           | -                                 | -              | -                                   | -             | (2)                                      | -             | (2)              | 36.128           |
| Business combinations                                       | (8.239)               | -                | -                                 | -              | -                                   | -             | -                                        | -             | (8.239)          | -                |
| Disposals                                                   | -                     | -                | -                                 | -              | -                                   | -             | (29)                                     | -             | (29)             | -                |
| Other changes                                               | 593                   | (436)            | -                                 | -              | -                                   | -             | (51)                                     | -             | 542              | (436)            |
| <b>Fair value of plan assets December 31</b>                | <b>385.026</b>        | <b>401.182</b>   | <b>-</b>                          | <b>-</b>       | <b>-</b>                            | <b>-</b>      | <b>5.087</b>                             | <b>-</b>      | <b>390.113</b>   | <b>401.182</b>   |
| <b>Surplus or (deficit) of the defined benefit plan</b>     | <b>666.655</b>        | <b>644.073</b>   | <b>141.061</b>                    | <b>133.747</b> | <b>40.185</b>                       | <b>44.215</b> | <b>20.848</b>                            | <b>23.734</b> | <b>868.749</b>   | <b>845.769</b>   |
| <b>Net Asset or (liability) of the defined benefit plan</b> | <b>666.655</b>        | <b>644.073</b>   | <b>141.061</b>                    | <b>133.747</b> | <b>40.185</b>                       | <b>44.215</b> | <b>20.848</b>                            | <b>23.734</b> | <b>868.749</b>   | <b>845.769</b>   |
| <b>Total defined benefits</b>                               | <b>666.655</b>        | <b>644.073</b>   | <b>141.061</b>                    | <b>133.747</b> | <b>40.185</b>                       | <b>44.215</b> | <b>20.848</b>                            | <b>23.734</b> | <b>868.749</b>   | <b>845.769</b>   |

- Amounts expressed in millions of Colombian pesos

- (1) Includes for the EPM Group the retirement pension plans that each company is in charge of, in accordance with the regulations of each country. Includes contributions to social security and burial allowance.
- (2) It includes for the EPM Group the plans corresponding to retroactive severance pay; it is a post-employment benefit that consists in the recognition of an average monthly salary multiplied by the number of years of service, payable through advances and at the time of termination of the contract. The source that gives rise to the plan is the "Sixth Law of 1945 whereby some provisions are issued on labor conventions, professional associations, collective conflicts and special work jurisdiction" and



National Decree 1160 of 1989, whereby Law 71 of 1988 is partially regulated, and whereby rules are issued on pensions and other provisions are issued.

- (3) The public utility benefit is a plan consisting of a total or partial discount on the monthly value payable of the public utility of energy and in some cases in the water and telephone services, in the following companies of the Group: Central Hidroeléctrica de Caldas S.A. E.S.P., Centrales Eléctricas del Norte de Santander S.A. E.S.P., Electrificadora de Santander S.A. E.S.P., and Elektra Noreste S.A. In Electrificadora de Santander S.A. E.S.P., the benefit is granted to former employees whose time of services as of the date of retirement was minimum 15 years of employment. The benefit for public utilities is supported in the collective bargaining agreements in effect on those dates.
- (4) Correspond to the education aid that by law is granted to the children of retired persons who depend economically from the latter up to 25 years of age.

No risks have been identified for the EPM Group, generated by post-employment benefit plans, or modifications, or reduction or assessments that have an impact on the present value of the obligation.

The weighted average of the duration in years, of the obligations by defined benefit plans at the report date, is presented below:

| Benefits                    | 2017 |    | 2016 |    |
|-----------------------------|------|----|------|----|
|                             | From | To | From | To |
| Pension                     | 9    | 12 | 9    | 12 |
| Retroactive layoffs         | 7    | 11 | 6    | 8  |
| Public services assistance  | 11   | 12 | 11   | 13 |
| Other defined benefit plans | 2    | 6  | 2    | 6  |

The Group does not have restrictions on the actual realization of the surplus for the defined benefits plan.

The Group did not make contributions for defined benefits during the period.

The fair value of the plan assets is made up as follows:

| Assets that support the plan              | 2017            |                | 2016            |                |
|-------------------------------------------|-----------------|----------------|-----------------|----------------|
|                                           | % participation | Fair value     | % participation | Fair value     |
| Cash and cash equivalents                 | 2,51%           | 9.780          | 0,88%           | 16.154         |
| <b>Equity instruments</b>                 |                 |                |                 |                |
| Financial sector                          | 6,01%           | 23.465         | 0,23%           | 927            |
| Service sector                            | 0,80%           | 3.123          | 0,01%           | 43             |
| Real sector                               | -               | 2.039          | -               | 7              |
| Government sector                         | 0,79%           | 3.093          | 0,01%           | 43             |
| <b>Total equity instruments</b>           | <b>8,13%</b>    | <b>31.720</b>  | <b>0,25%</b>    | <b>1.020</b>   |
| <b>Debt instruments</b>                   |                 |                |                 |                |
| AAA                                       | 67,50%          | 263.343        | 74,11%          | 297.316        |
| AA                                        | 7,80%           | 30.447         | 4,74%           | 19.020         |
| A                                         | -               | -              | 0,44%           | 1.773          |
| Unrated                                   | 10,33%          | 40.291         | 12,56%          | 50.371         |
| Investment funds <sup>(1)</sup>           | 2,45%           | 9.569          | 2,51%           | 10.058         |
| <b>Total debt instruments</b>             | <b>88,09%</b>   | <b>343.650</b> | <b>94,36%</b>   | <b>378.538</b> |
| <b>Other assets</b>                       | <b>1,27%</b>    | <b>4.963</b>   | <b>1,36%</b>    | <b>5.470</b>   |
| <b>Total assets that support the plan</b> | <b>100%</b>     | <b>390.113</b> | <b>100%</b>     | <b>401.182</b> |

Amounts expressed in millions of Colombian pesos -

- (1) It includes from EPM a collective conservative profile investment fund, with immediate availability of the resources called Rentaliquida, administered by Fiduciaria Davivienda, with a balance of \$3,449 and an Exchange Trade Fund (ETF), which follows the behavior of the Colcap (Colombian Stock Exchange Index), with a balance of \$3,449.

The main actuarial assumptions used to determine the obligations under the defined benefit plans are as follows:

| Assumptions                               | Colombia                 |       |       |       |
|-------------------------------------------|--------------------------|-------|-------|-------|
|                                           | 2017                     |       | 2016  |       |
|                                           | From                     | To    | From  | To    |
| Discount rate (%)                         | 5,40%                    | 7,10% | 5,80% | 7,31% |
| Annual salary increase rate (%)           | 4,00%                    | 4,70% | 3,50% | 7,09% |
| Real rate of return on plans assets       | 6,00%                    | 9,70% | 6,50% | 6,50% |
| Rate of future increase in annual pension | 3,00%                    | 4,00% | 3,50% | 6,39% |
| Annual inflation rate (%)                 | 3,00%                    | 4,00% | 3,50% | 5,89% |
| Mortality rate tables                     | Valid renters table 2008 |       |       |       |

| Assumptions                               | Panama                                                                  |       |       |       |
|-------------------------------------------|-------------------------------------------------------------------------|-------|-------|-------|
|                                           | 2017                                                                    |       | 2016  |       |
|                                           | From                                                                    | To    | From  | To    |
| Discount rate (%)                         | 3,70%                                                                   | 4,35% | 4,35% | 4,35% |
| Annual salary increase rate (%)           | 3,80%                                                                   | 5,00% | 4,00% | 4,00% |
| Real rate of return on plans assets       | -                                                                       | -     | -     | -     |
| Rate of future increase in annual pension | -                                                                       | -     | -     | -     |
| Annual inflation rate (%)                 | 2,00%                                                                   | 2,00% | -     | -     |
| Mortality rate tables                     | Mortality table of the urban population<br>Republic of Panama 2010-2015 |       |       |       |

| Assumptions                               | Guatemala     |       |       |       |
|-------------------------------------------|---------------|-------|-------|-------|
|                                           | 2017          |       | 2016  |       |
|                                           | From          | To    | From  | To    |
| Discount rate (%)                         | 6,30%         | 6,30% | 6,70% | 6,70% |
| Annual salary increase rate (%)           | 4,50%         | 4,50% | 4,50% | 4,50% |
| Rate of future increase in annual pension | -             | -     | -     | -     |
| Annual inflation rate (%)                 | 4,00%         | 4,00% | 4,00% | 4,00% |
| Mortality rate tables                     | Table RP-2000 |       |       |       |

| Assumptions                               | Mexico |       |       |       |
|-------------------------------------------|--------|-------|-------|-------|
|                                           | 2017   |       | 2016  |       |
|                                           | From   | To    | From  | To    |
| Discount rate (%)                         | 7,50%  | 7,50% | 6,00% | 6,00% |
| Annual salary increase rate (%)           | 5,50%  | 5,50% | -     | -     |
| Rate of future increase in annual pension | -      | -     | -     | -     |
| Annual inflation rate (%)                 | 3,50%  | 3,50% | -     | -     |
| Mortality rate tables                     |        |       |       |       |

| Assumptions                               | El Salvador  |       |       |       |
|-------------------------------------------|--------------|-------|-------|-------|
|                                           | 2017         |       | 2016  |       |
|                                           | From         | To    | From  | To    |
| Discount rate (%)                         | 4,08%        | 4,08% | 6,00% | 6,00% |
| Annual salary increase rate (%)           | 1,50%        | 1,50% | 1,50% | 1,50% |
| Rate of future increase in annual pension | -            | -     | -     | -     |
| Annual inflation rate (%)                 | 3,00%        | 3,00% | 3,00% | 3,00% |
| Mortality rate tables                     | Table CSO-80 |       |       |       |

| Assumptions                               | Chile                        |       |       |       |
|-------------------------------------------|------------------------------|-------|-------|-------|
|                                           | 2017                         |       | 2016  |       |
|                                           | From                         | To    | From  | To    |
| Discount rate (%)                         | 2,00%                        | 2,00% | 1,34% | 1,34% |
| Annual salary increase rate (%)           | 1,00%                        | 1,00% | 6,20% | 6,20% |
| Rate of future increase in annual pension | -                            | -     | -     | -     |
| Annual inflation rate (%)                 | -                            | -     | -     | -     |
| Mortality rate tables                     | Tables CB H 2014 y RV M 2014 |       |       |       |

The following table shows the effect of a variation of more than 1% and less than 1% in the salary increase, in the discount rate and in the increase in the benefit over the obligation for post-employment defined benefit plans:

| Assumptions                           | Increase in the discount rate by +1% | Decrease in the discount rate by -1% | Increase in salary increase by +1% | Decrease in salary increase by -1% | Increase in benefit incrementation by +1% | Decrease in benefit incrementation by -1% |
|---------------------------------------|--------------------------------------|--------------------------------------|------------------------------------|------------------------------------|-------------------------------------------|-------------------------------------------|
| Pension                               | 794.243                              | 955.285                              | 644                                | (542)                              | 84.917                                    | 84.138                                    |
| Retroactive layoffs                   | 133.214                              | 149.661                              | 156.192                            | 126.963                            | -                                         | -                                         |
| Public services                       | 35.382                               | 43.770                               | -                                  | -                                  | 44.090                                    | 35.067                                    |
| Other post-employment benefits        | 16.929                               | 19.120                               | 17.094                             | 13.893                             | 1.560                                     | 1.409                                     |
| <b>Total post-employment benefits</b> | <b>979.768</b>                       | <b>1.167.836</b>                     | <b>173.930</b>                     | <b>140.314</b>                     | <b>130.567</b>                            | <b>120.614</b>                            |

- Amounts expressed in millions of Colombian pesos -

The methods and assumptions used to prepare the sensitivity analysis of the Present Value of the Obligations (DBO - Defined Benefit Obligations) was made using the same methodology that for the actuarial calculation as of December 31, 2017 and 2016: Projected Unit Credit (PUC) method. The sensibility does not present limitations. No changes in the methods or assumptions used have been presented to prepare the sensibility analysis of the period before the current one.

### Calculation of pension liabilities in accordance with tax requirements in effect in Colombia.

Resolution 037 of 2017 issued by the General Accounting Office of the Nation established the obligation to disclose the calculation of pension liabilities in accordance with the parameters established in Decree 1625 of 2016 and Decree 1833 for pension liability transfers; therefore, the figures presented below do not correspond to the IFRS requirements.

#### Pension liabilities

The actuarial calculation of pensions was prepared with the following technical bases:

| Actuarial assumptions - Pension obligation | 2017                         | 2016                         |
|--------------------------------------------|------------------------------|------------------------------|
| Actual technical interest rate             | 4,80%                        | 4,80%                        |
| Salary increase rate                       | 5,74%                        | 4,93%                        |
| Pension increase rate                      | 5,74%                        | 4,93%                        |
| Mortality table                            | Valid rentiers table<br>2008 | Valid rentiers table<br>2008 |

The following table is the calculation of the pension liabilities with the previous parameters:

| Item                                                           | 2017             |                  | 2016             |                  |
|----------------------------------------------------------------|------------------|------------------|------------------|------------------|
|                                                                | Number of people | Obligation value | Number of people | Obligation value |
| Personnel pensioned entirely by the companies of the EPM Group | 1.617            | 352.471          | 1.740            | 360.651          |
| Personnel retired with pension shared with Colpensiones        | 1.872            | 149.149          | 1.868            | 134.856          |
| Personnel benefit shared with Colpensiones                     | 839              | 85.578           | 814              | 82.774           |
| Personnel retired with pension shared with other entities      | 346              | 46.290           | 379              | 45.986           |
| <b>Total</b>                                                   | <b>4.674</b>     | <b>633.488</b>   | <b>4.801</b>     | <b>624.267</b>   |

- Amounts expressed in millions of Colombian pesos -

The following are the pension bonuses related with the pension obligations:

| Item                                 | 2017             |                | 2016             |                |
|--------------------------------------|------------------|----------------|------------------|----------------|
|                                      | Number of people | Reserve value  | Number of people | Reserve value  |
| Retirement payment type A modality 1 | 250              | 2.399          | 252              | 2.236          |
| Retirement payment type A modality 2 | 4.302            | 170.423        | 4.347            | 161.726        |
| Retirement payment type B            | 4.166            | 415.910        | 4.261            | 417.916        |
| Retirement payment type T            | 5                | 393            | 6                | 583            |
| Other - Contributions Law 549        | 178              | 4.636          | 175              | 4.203          |
| <b>Total</b>                         | <b>8.901</b>     | <b>593.761</b> | <b>9.041</b>     | <b>586.664</b> |

- Amounts expressed in millions of Colombian pesos -

Below, the differences between the pension liabilities calculated under IFRS and the fiscal pension liabilities are shown:

|                                      | 2017          | 2016          |
|--------------------------------------|---------------|---------------|
| Pension liabilities under IFRS       | 809.270       | 814.063       |
| Pension liabilities for tax purposes | 781.748       | 771.744       |
| <b>Difference</b>                    | <b>27.522</b> | <b>42.319</b> |

- Amounts expressed in millions of Colombian pesos -

#### Pension commutations liabilities

The actuarial calculation of pension commutation was prepared with the following technical bases:

| Actuarial assumptions - Pension obligation transfer | 2017                      | 2016                      |
|-----------------------------------------------------|---------------------------|---------------------------|
| Actual technical interest rate                      | 4,80%                     | 4,80%                     |
| Salary increase rate                                | 5,74%                     | 4,93%                     |
| Pension increase rate                               | 5,74%                     | 4,93%                     |
| Mortality table                                     | Valid rentiers table 2008 | Valid rentiers table 2008 |

The following table is the calculation of the pension switching with the previous parameters:

| Item                                                           | 2017             |                  | 2016             |                  |
|----------------------------------------------------------------|------------------|------------------|------------------|------------------|
|                                                                | Number of people | Obligation value | Number of people | Obligation value |
| Personnel pensioned entirely by the companies of the EPM Group | 151              | 31.288           | 157              | 31.698           |
| Personnel retired with pension shared with Colpensiones        | 312              | 35.451           | 305              | 32.600           |
| Personnel benefit shared with Colpensiones                     | 31               | 2.435            | 34               | 2.390            |
| Personnel retired with pension shared with other entities      | 44               | 4.547            | 46               | 4.618            |
| <b>Total</b>                                                   | <b>538</b>       | <b>73.721</b>    | <b>542</b>       | <b>71.306</b>    |

- Amounts expressed in millions of Colombian pesos -

The following are the pension bonuses related to the pension commutation liability:

| Item                                 | 2017             |               | 2016             |               |
|--------------------------------------|------------------|---------------|------------------|---------------|
|                                      | Number of people | Reserve value | Number of people | Reserve value |
| Retirement payment type A modality 1 | 12               | 33            | 12               | 30            |
| Retirement payment type A modality 2 | 267              | 9.787         | 269              | 9.117         |
| Retirement payment type B            | 229              | 21.199        | 236              | 20.849        |
| Retirement payment type T            | 3                | 219           | 3                | 276           |
| Other - Contributions Law 549        | 3                | 101           | 3                | 94            |
| <b>Total</b>                         | <b>514</b>       | <b>31.339</b> | <b>523</b>       | <b>30.366</b> |

- Amounts expressed in millions of Colombian pesos -

The differences between the pension commutation liability calculated under IFRS and the tax pension commutation liability are shown below:

|                                                        | 2017            | 2016            |
|--------------------------------------------------------|-----------------|-----------------|
| Pension obligation transfer liability under IFRS       | 83.972          | 83.290          |
| Pension obligation transfer liability for tax purposes | 105.059         | 101.671         |
| <b>Difference</b>                                      | <b>(21.087)</b> | <b>(18.381)</b> |

- Amounts expressed in millions of Colombian pesos -

### 25.1.2. Defined contribution plans

The Group made contributions to defined contribution plans recognized in profit or loss for \$ 19,751 (2016: \$ 17,603), as a cost for \$ 42,673 (2016: \$ 37,264) for a total of \$ 62,424 (2016: \$ 54,867).

### 25.2. Long-term employee benefits

| Long term benefits                                               | Seniority bonus <sup>(1)</sup> |                 | Other long-term benefits |                | Total           |                 |
|------------------------------------------------------------------|--------------------------------|-----------------|--------------------------|----------------|-----------------|-----------------|
|                                                                  | 2017                           | 2016            | 2017                     | 2016           | 2017            | 2016            |
| <b>Present value of obligations for other long term benefits</b> |                                |                 |                          |                |                 |                 |
| Beginning balance                                                | 78.690                         | 68.316          | 1.506                    | 173            | 80.196          | 68.489          |
| Cost of the present service                                      | 7.057                          | 5.479           | 224                      | 212            | 7.281           | 5.691           |
| Interest income or (expense)                                     | 5.799                          | 4.865           | 107                      | 98             | 5.906           | 4.963           |
| Assumptions by experience                                        | 3.712                          | 7.414           | 64                       | 104            | 3.776           | 7.518           |
| Demographic assumptions                                          | (646)                          | 174             | (42)                     | -              | (688)           | 174             |
| Financial assumptions                                            | 2.218                          | 1.549           | 52                       | 36             | 2.270           | 1.585           |
| Past service cost                                                | -                              | 567             | -                        | (31)           | -               | 536             |
| Exchange rate difference                                         | -                              | (1.134)         | -                        | 1.087          | -               | (47)            |
| Payments made by the plan <sup>(2)</sup>                         | (11.612)                       | (8.559)         | (267)                    | (173)          | (11.879)        | (8.732)         |
| Other changes                                                    | 20                             | 19              | -                        | -              | 20              | 19              |
| <b>Present value of obligations as of December 31</b>            | <b>85.238</b>                  | <b>78.690</b>   | <b>1.644</b>             | <b>1.506</b>   | <b>86.882</b>   | <b>80.196</b>   |
| <b>Surplus or (deficit) for long-term benefits</b>               | <b>(85.238)</b>                | <b>(78.690)</b> | <b>(1.644)</b>           | <b>(1.506)</b> | <b>(86.882)</b> | <b>(80.196)</b> |
| <b>Active or (liability) net for long-term benefits</b>          | <b>(85.238)</b>                | <b>(78.690)</b> | <b>(1.644)</b>           | <b>(1.506)</b> | <b>(86.882)</b> | <b>(80.196)</b> |

- Amounts expressed in millions of Colombian pesos -

(1) It is granted based on the years of service of the employee, it is recognized and paid in accordance with the terms established in the current collective labor agreements of each company or the labor regulations of the country.

(2) Includes \$ 4,943 (2016: \$ 3,863) for the amounts paid for plan liquidations.

The Group has not identified risks generated by long-term benefit plans, or modifications, reductions or settlements that impact the present value of the obligation.

The weighted average duration in years, of the obligations for long-term benefit plans at the report date, is as follows:

| Benefit         | 2017 |      | 2016 |    |
|-----------------|------|------|------|----|
|                 | From | To   | From | To |
| Seniority bonus | 4,7  | 10,4 | 4,8  | 11 |
| Cessation       | 7,5  | 7,6  | 4,8  | 11 |

The Group does not expect to contribute to the plan for the next annual period.

The main actuarial assumptions used to determine the obligations under the long-term employee benefit plans are as follows:

| Assumptions                     | Colombia                   |       | Guatemala     |       |
|---------------------------------|----------------------------|-------|---------------|-------|
|                                 | 2017                       | 2016  | 2017          | 2016  |
| Discount rate (%)               | 6,70%                      | 7,10% | 6,60%         | 6,70% |
| Annual salary increase rate (%) | 4,70%                      | 4,70% | 4,50%         | 4,50% |
| Annual inflation rate (%)       | 3,50%                      | 5,89% | 4,00%         | 4,00% |
| Survival tables                 | Table valid Rentistas 2008 |       | Table RP-2000 |       |

The following table shows the effect of a variation of more than 1% and less 1% in the salary increase, in the discount rate and in the increase in the benefit over the obligation for long-term benefits:

| Assumptions                     | Increase in the discount rate by +1% | Decrease in the discount rate by -1% | Increase in salary increase by +1% | Decrease in salary increase by -1% | Increase in benefit incrementation by +1% | Decrease in benefit decrementation by -1% |
|---------------------------------|--------------------------------------|--------------------------------------|------------------------------------|------------------------------------|-------------------------------------------|-------------------------------------------|
| Seniority bonus                 | 77.925                               | 87.990                               | 87.651                             | 78.168                             | -                                         | -                                         |
| Other long-term benefits        | 1.534                                | 1.766                                | 1.761                              | 1.537                              | -                                         | -                                         |
| <b>Total long-term benefits</b> | <b>79.459</b>                        | <b>89.756</b>                        | <b>89.412</b>                      | <b>79.705</b>                      | -                                         | -                                         |

- Amounts expressed in millions of Colombian pesos -

The methods and assumptions used to prepare the sensibility analysis of the Present Value of Obligations (DBO - Defined Benefit Obligations) were the same as for the actuarial calculation as of December 31, 2017: Forecasted Credit Unit (FCU). The sensibility does not present any limitations, or changes in the methods and assumptions used to prepare the analysis of the current period.

### 25.3. Short-term benefits

The composition of short term benefits is as follows:

| Short-term benefits                          | 2017           | 2016           |
|----------------------------------------------|----------------|----------------|
| Cessation                                    | 8.311          | 8.282          |
| Holiday bonus                                | 40.697         | 35.651         |
| Holidays                                     | 5.514          | 5.213          |
| Other premiums, salaries and social benefits | 25.273         | 21.676         |
| Bonuses                                      | 33.336         | 28.225         |
| Payroll payable                              | 422            | 558            |
| Interest on layoffs                          | 233            | 207            |
| Christmas bonus                              | 8.751          | 7.751          |
| Service bonus                                | 10.422         | 10.200         |
| <b>Total short-term benefits</b>             | <b>132.959</b> | <b>117.763</b> |

- Amounts expressed in millions of Colombian pesos -

## Note 26. Taxes, contributions and rates

The detail of taxes, contributions and rates, other than income tax, is as follows:

| Taxes, contribution and fees                     | 2017           | 2016           |
|--------------------------------------------------|----------------|----------------|
| <b>Current</b>                                   |                |                |
| Withholding tax and stamp duty                   | 85.725         | 84.457         |
| Tax of industry and commerce                     | 32.462         | 35.639         |
| Value added tax                                  | 26.526         | 17.500         |
| Rates                                            | 16.408         | 14.329         |
| Customs tax and surcharges                       | 10.043         | -              |
| Contributions                                    | 6.397          | 4.917          |
| Royalties and monetary compensations             | 1.541          | 23             |
| Taxes, contributions and taxes abroad            | 1.039          | 4.248          |
| Other national taxes                             | 702            | 3.261          |
| Sanctions                                        | 670            | 124            |
| Unified property tax                             | 217            | 85             |
| Other municipal taxes                            | 6              | 6              |
| National consumption tax                         | 3              | -              |
| Registration tax                                 | -              | 29             |
| <b>Total current tax, contributions and fees</b> | <b>181.739</b> | <b>164.618</b> |
| <b>Total taxes, rates and contributions</b>      | <b>181.739</b> | <b>164.618</b> |

Amounts expressed in millions of Colombian pesos -

## Note 27. Provisions, contingent assets and liabilities

### 27.1. Provisions

The reconciliation of provisions is as follows:

| Concepto                            | Dismantling or restoration | Onerous contracts | Litigations    | Business combination | Other provision | Total          |
|-------------------------------------|----------------------------|-------------------|----------------|----------------------|-----------------|----------------|
| Beginning balance                   | 60.753                     | 141.184           | 147.273        | 147.413              | 118.138         | 614.761        |
| Additions                           | 1.476                      | -                 | 136.919        | -                    | 179.760         | 318.155        |
| Uses (-)                            | (5.351)                    | (28.297)          | (21.316)       | -                    | (106.456)       | (161.420)      |
| Reversal, unused amounts (-)        | (270)                      | (33.233)          | (24.508)       | (4.746)              | (3.072)         | (65.829)       |
| Adjustment for changes in estimates | (1.865)                    | 5.856             | 5.422          | 36                   | (914)           | 8.535          |
| Exchange rate differences           | -                          | -                 | 2.634          | (734)                | -               | 1.900          |
| Business combination                | -                          | -                 | 16.924         | -                    | 893             | 17.817         |
| Other changes                       | 4.183                      | 3.904             | 5.735          | 2.484                | 34.146          | 50.452         |
| <b>Closing balance</b>              | <b>58.926</b>              | <b>89.414</b>     | <b>269.083</b> | <b>144.453</b>       | <b>222.495</b>  | <b>784.371</b> |
| Non current                         | 48.798                     | 61.398            | 119.891        | 132.450              | 21.808          | 384.345        |
| Current                             | 10.128                     | 28.016            | 149.192        | 12.003               | 200.687         | 400.026        |
| <b>Total</b>                        | <b>58.926</b>              | <b>89.414</b>     | <b>269.083</b> | <b>144.453</b>       | <b>222.495</b>  | <b>784.371</b> |

Amounts expressed in millions of Colombian pesos -

#### 27.1.1 Dismantling or restoration

The EPM Group has the obligation to incur dismantling or restoration costs of its facilities and assets, in the following events:

- Removal of transformers that contain PCB (polychlorinated biphenyls), the group has agreed to dismantling these assets from 2008 to 2026, supported on resolution 222 of December 15, 2011 from the Ministry of Environment and Sustainable Development and the Stockholm Convention of May 22, 2008. It applies in Colombia, Panama and El Salvador. The provision is recognized for the present value of the costs expected to pay the obligation using estimated cash flows. The main



assumptions considered in the calculation of the provision are: estimated costs, CPI and TES (internal public debt funds) fixed rate. As of this date it has been evidenced that the provision will be affected given that it has been provided to terminate the dismantling in a time shorter than estimated, in turn the estimated costs reduce given that the dismantling peak already ended.

- In the sanitation service, for the disposal of solid waste. It is a land in which cells are built for the deposit of waste, it being necessary to restore that land through a series of activities intended to make the closing, decommissioning and post-commissioning thereof. The obligation starts from the time when the landfill is in optimum conditions for the final disposal and goes until the regulating entity, by means of resolution, decrees the termination of the closing, decommissioning and post-commissioning phase.
- Dismantling of a coal mine located in the Municipality of Amagá, Department of Antioquia, Colombia, with Resolution 130 AS-1106242 of October 21, 2011 issued by the competent environmental authority (Corantioquia), the component Environmental project of the closure of the mines of coal of the mining title and for this are carried out contracts of construction of civil works, several, of urbanism and monitoring in the mines of coal of the mining title, code RPP 434 of the area of Amagá. The main assumptions considered in the calculation of the provision are: estimated costs, CPI and fixed rate TES. Currently, the company is in the final stages of the actions contemplated in the aforementioned resolution and awaiting to a ruling by CORANTIOQUIA on the matter, which could involve more monitoring. However, it is clear that independently of this pronouncement, EPM must carry out the necessary actions for the delivery of the title, which include legal and technical processes and the structuring of decisional schemes. To date, it has been shown that the provision will be affected, due to the fact that, depending on the qualification of the existing risk, it is necessary to continue monitoring the gases from the Amagá area mines for the next 2018 term.
- The closure and abandonment plan for Parque Eólico Los Cururos in Chile includes the dismantling of facilities such as wind turbines, substation and civil works, among others. Two years before the closing, a closure and abandonment plan will be delivered to the competent authority, in accordance with current legal requirements. The main assumptions considered in the calculation of the provision are: estimated costs, CPI and fixed rate TES.
- In EPM Environmental provision in the construction of infrastructure projects, it arises as a legal obligation derived from the granting of the environmental license to compensate for the loss of biodiversity during the construction phase, as well as compensation for the subtraction of reserve areas, Closed species and forest use; Obligations that are formalized, through the resolutions of ANLA (National Environmental Licensing Authority), CAR - Regional Autonomous Corporation and / or MADS - Ministry of Environment and Sustainable Development. Executions of biotic environmental compensations of the project extend beyond the time in which the asset begins to operate technically, being necessary to implement the figure of the provision with the intention that such expenditures remain as greater value of the construction in progress. The Group is committed to compensate for the loss of biodiversity, subtraction and closures from 2016 to 2019 according to the resolutions: Res. 1313/2013 ANLA, Res. 519/2014 ANLA, Res LA. 0882/04/08/2014 ANA, Res. 1166/2013 MADS, Res. 1852/2013 CAR, Res. 2135/2014 CAR, Resolution 1189/22/07/2104 MADS, Res. 1120907 / 17-03-2015 CORNARE, Res. 141011206 / 16-10-2014 CORANTIOQUIA, Res LA. EIA1-9872 04/21/2014 CVS, among others. The provision is recognized by the present value of the expected costs to cancel the obligation using estimated cash flows. The main assumptions considered in the calculation of the provision are: estimated costs, CPI and fixed rate TES.

It presented a decrease due to payments to the environmental plan and to the Nueva Esperanza projects and the Bello-Guayabal-Ancón transmission line.

#### 27.1.2 Contracts for valuable consideration

As of December 31, 2017, the Group has recognized \$89,414 (2016: \$141,184) for the fuel supply and transportation contract signed between EPM and TGI- Gas International Carrier S.A. E.S.P., with the objective of supporting the thermosierra plant and obtaining the income from the reliability charge established by the Energy and Gas Regulatory Commission.

The major assumptions considered in the calculation of the provision are: costs associated to the agreement with the mentioned conditions, utilization factor or suspension of payments for maintenance of the agreement, Libor rate, discount rate calculated with reference to the market returns of the bonds issued by the National Government, the Market's Representative Exchange Rate and macroeconomic scenario projected.

The main hypothesis used on the future events are: from 2016 to 2020 the following assumptions are maintained: Suspension of the contract for 30 days every year and utilization of the contract only for 15 days each year for generation for the Termosierra plant and the rest of the time would be paid without using the contract (only fixed costs).

The decrease was due to the adjustment of the pair of fixed and variable cost charges, which went from 85/15 to 50/50.

### **27.1.3 Litigations**

With this provision the EPM Group covers the estimated losses probable related to labor, civil, administrative and tax litigations (through administrative and government channels) that arise in the operations of the Group companies. The major assumptions considered in the calculation of the provision are: Average CPI to actual data in previous years and projected data in future years, discount rate calculated with reference to the market returns of the bonds issued by the National Government, estimated value to be paid and the estimated payment date for those litigations that their occurrence exceeds 50% probability. As of this date no future events have been evidenced that may affect the calculation of the provision.

It was increased by the recognition of the exchange difference applied to foreign currency disputes of the Dragados Porce II Consortium and MICROCOM Ltda., In addition, due to the change in the probability of 11 labor litigations of possible and remote to probable whose claimants correspond to former employees of EADE.

In the companies of the Group that operate in Colombia, in order to lessen the uncertainty that may arise with respect to the estimated date of payment and the estimated value to be paid in a litigation rated as probable, there are business rules based on statistical studies with which the average duration of the processes per action was obtained and also the application of the jurisdiction to the maximum limits that it defines for the value of the extra-economic or intangible claims when they exceed their amount, as described below

#### **Average duration of processes per action**

##### **Administrative and fiscal**

| Action                                  | Average years |
|-----------------------------------------|---------------|
| Abbreviated                             | 4             |
| Compliance action                       | 4             |
| Group action                            | 6             |
| Popular actions                         | 4             |
| Harmful conciliation                    | 2             |
| Constitution of civil party             | 4             |
| Contractual                             | 13            |
| Demarcation                             | 5             |
| Executive                               | 5             |
| Singular executive                      | 3             |
| Expropriation                           | 4             |
| Incident of integral reparation (penal) | 2             |
| Imposition of easement                  | 4             |
| Nullity of administrative acts          | 5             |
| Nullity and restoration of right        | 10            |
| Nullity and reinstatement of labor law  | 11            |
| Ordinary                                | 7             |
| Ordinary of membership                  | 5             |
| Criminal accusatory (Law 906 of 2004)   | 4             |
| Partitioning processes                  | 4             |
| Protection of consumer rights           | 6             |
| Police complaints                       | 3             |
| Claim                                   | 7             |
| Direct repair                           | 12            |
| Verbal                                  | 5             |

#### Labor processes

| Action                              | Average years |
|-------------------------------------|---------------|
| Solidarity                          | 3,5           |
| Pension                             | 3,5           |
| Extra hours                         | 3,5           |
| Reimbursement                       | 4             |
| Salary scale leveling               | 3,5           |
| Unfair dismissal compensation       | 3,5           |
| Re settlement social benefits       | 3,5           |
| Compensation work accident          | 4             |
| Refund health-pension contributions | 4             |

#### Application of jurisprudence

**Typology:** The values of claims for compensation of off-balance damages will be recorded according to the following typology:

- Moral prejudice.
- Damage to health (physiological or biological damage), resulting from bodily or psychophysical injury.
- Damage to the life of relationship.
- Damage to constitutional and conventional property.

The values of other off-balance-sheet claims not recognized by the case-law will not be recorded, unless the claim can be inferred that, despite being otherwise denominated, it corresponds to one of the accepted typologies. Neither will claim for off-balance compensation for damages to property.

**Quantification:** The amount of the off-balance sheet claims will be recorded uniformly as follows, regardless of its typology:

|                     |                                         |
|---------------------|-----------------------------------------|
| For direct victim   | 100 Current Monthly Legal Minimum Wages |
| For indirect victim | 50 Current Monthly Legal Minimum Wages  |

- **For affiliates in Chile:** In reference to the probable payment date of the lawsuits, the type of process and the previous cases are taken into consideration; in this sense the labor process since it is verbal and has only two hearings, has a maximum term of six months, save specific cases where there are problems to notify the complaints. In civil judgments, since are processes of broad knowledge and the available instances, may last minimum two years, and thus the time estimated in the judgments that currently is processing the affiliate Aguas de Antofagasta S.A., considering their progress status, should be up to 2019.
- **Quantification:** In order to determine the amount of the judgments in principle the amount of the claim by the plaintiff is considered, since the law cannot be applied in that sense, amount that will vary depending on the Court and the cause to claim. Additionally, in the civil judgments, the amounts of the indemnifications will depend on the court that dictates it, given that in Chile there is no precedent system. What the civil judge and the appellate and supreme court cannot do, is to confer higher figures on the demands.
- **For the affiliates in Panama:** in respect to the estimated payment date, each case is assessed in particular with external legal advisors, for which the average term of similar processes is taken into consideration.
- **Quantification:** The estimated value payable of a litigation is determined by taking as a base the amount of the claim by the plaintiff and an analysis of the specific condition that motivates the complaint to be able to determine the recognition of a possible damage. For this purpose the company has available the valuation by external legal counsel of each company and in certain cases with the support of insurance advisors in case that an actuarial valuation is required.
- **For the affiliates of El Salvador:** the estimated date of payment for administrative or legal processes is estimated based on the average term of the processing of similar processes, obtained from statistical data throughout 20 years of operation of the affiliates.
- **Quantification:** The estimated value payable of litigation is determined taking as a base the amount of the initial claim of the complaint presented against the company.
- The detail for each type of action is the following:

#### Labor Court Actions:

| Action                                                            | Average years | Maximum estimated value payable                                                                                                                                                                                                                       |
|-------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Legal Labor Process of Restitution and Back Wages                 | 5 years       | The amount that is established in the initial claim by the worker if decided in favor of the worker, the salaries not earned up to the date of pronouncement of the last ruling, not exceeding the salary of 55 calendar days.                        |
| Legal Labor Process Indemnification for Termination without Cause | 5 years       | The amount that is established in the initial claim by the worker and if it is ruled in favor of the worker, the salaries not earned up to the date of pronouncement of the latest decision are added, not exceeding the salary of 55 days of salary. |

#### Legal Administrative Actions:

| Action                                    | Average years | Maximum estimated value payable                                                                                                                                                                 |
|-------------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Illegal Acts by the Public Administration | 6 years       | The amount that is established in the initial claim, which is usually that resolved by the Administrative Entity against the Affiliate, or the amount required by the Municipal Mayor's Offices |

#### Action at Administrative Instances

| Action                               | Average years | Maximum estimated value payable                                          |
|--------------------------------------|---------------|--------------------------------------------------------------------------|
| Municipal Administrative Procedures  | 2 years       | The amount that is established in the initial claim by the Municipality. |
| Administrative Regulatory Procedures | 6 months      | The amount that is established in the initial claim by the worker        |

The following are the litigations recognized:

| Company          | Third party                                                     | Claim                                                                                                                                                                                                                                                                                                                   | Value          |
|------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| EPM              | Consortio Dragados Porce II                                     | Pay to the plaintiffs among others, the sums of money that result from the refund of the total compensation illegally deducted by EPM in the contracting process No. CD002376.                                                                                                                                          | 28.087         |
|                  | Fiduciaria Colpatria S.A.                                       | Issue payment order against EPM and in favor of Fiduciaria Colpatria S.A. acting as speaker of the Stand-alone Trust FC - Enertotal.                                                                                                                                                                                    | 4.561          |
|                  | VELPA Soluciones Integrales S.A.                                | Impossibility of contracting with the State for a period of 5 years, as a result of the decision adopted in the contracting process No. 2009 - 0974.                                                                                                                                                                    | 4.642          |
|                  | Unión Temporal Energía Solar S.A. and Estructuras Arbi Ltda.    | That the bid presented by the plaintiffs in the public tender No. ES-2043-GI called by EPM be declared that was legally fit to be taken into account at the time of granting the respective program of tender No. ES-2043-GI.                                                                                           | 1.847          |
|                  | Construcciones Pico and Pala Ltda.                              | That resolutions 95070 of 05/04/1999, issued by EPM, whereby the contract 1/DJ-682/15 entered into between EPM and Consortium Trainco S.A. was unilaterally terminated and 113701 of 15/03/2000, issued also by EPM, whereby the reconsideration appeal filed against resolution 95070 of 05/04/1999 are null and void. | 1.727          |
|                  | Francisco Arturo Muriel Palacio                                 | Moral damages and damages to the relational life, caused to the plaintiffs on occasion of the death of Claudia Patricia Cepeda Muriel, in events that took place on 27/05/2008 at carrera 49 between 16 South and 18 South streets.                                                                                     | 1.900          |
|                  | Accesorios and Sistemas S.A.                                    | Declare the nullity of resolution 3077 of 11/12/2000, issued by the General Manager of EPM, whereby it was resolved to declare the occurrence of the quality and correct operation risk of the vehicles object of contract 090321557 .                                                                                  | 1.069          |
|                  | Oscar Elías Arboleda Lopera and others                          | Includes 173 plaintiffs who worked for EADE and express that in the dissolution and liquidation of that company there was employer substitution, which makes the company liable for all the labor obligations.                                                                                                          | 90.865         |
|                  | Trainco S.A.                                                    | That the nullity of resolutions 161052 of 05/03/2001 issued by EPM, whereby contract 2101870 entered into EPM and TRAINCO S.A. was terminated unilaterally, and 178702 of 07/06/2001 be declared.                                                                                                                       | 1.005          |
|                  | Municipality of Yumbo                                           | Industry and commerce tax and its complementary tax of signs and boards and public lighting.                                                                                                                                                                                                                            | 4.135          |
|                  | Luis Bernardo Mora Meneses                                      | Benefits of the Medical Department.                                                                                                                                                                                                                                                                                     | 3.203          |
|                  | Bertha Luz Bustamante Salazar                                   | Reinstatement                                                                                                                                                                                                                                                                                                           | 2.380          |
|                  | Municipality of Uribia                                          | Assessment of the public lighting tax.                                                                                                                                                                                                                                                                                  | 607            |
|                  | Various administrative                                          | Other processes for an amount of less than \$936 million pesos.                                                                                                                                                                                                                                                         | 14.371         |
| Various Tax      | Other processes for an amount of less than \$600 million pesos. | 426                                                                                                                                                                                                                                                                                                                     |                |
| Various Labor    | Other processes for an amount of less than \$710 million pesos. | 18.615                                                                                                                                                                                                                                                                                                                  |                |
| <b>Total EPM</b> |                                                                 |                                                                                                                                                                                                                                                                                                                         | <b>179.440</b> |

|      |                                |                                                                                                                                                                                                                                                                                      |        |
|------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| CENS | Chivor S.A. E.S.P              | That the termination of the power supply contract on the part of CENS will be declared with the resulting order to pay the indemnification of the corresponding damages.                                                                                                             | 15.307 |
|      | Luis Alberto Peña Villamizar   | That CENS S.A. E.S.P. pays him the money that was illegally discounted from its termination settlement, corresponding to salaries and fringe benefits earned in the period from December 1, 2008 and the of termination of his employment with the company.                          | 3.018  |
|      | Elsa Reyes De Buitrago         | Indexation of the first pension payment, in their condition as pensioned and/or pension substitutes to the all the plaintiffs and to pay the interest at the maximum legal rate contemplated in Law 100 of 1993 in its article 141.                                                  | 2.189  |
|      | William Alexis Ramírez         | To cease the charge for public lighting to the municipality of Cucuta, reimbursement of the balances for public lighting to the municipality, payment of contractual and non-contractual damages. Claim: \$928,023,004.78 Incentive: 15% of the value recovered by the Municipality. | 1.051  |
|      | Jesus Efrain Ibarra Ochoa      | That the pension compatibility be declared between retirement pension recognized by CENS and the old age pension recognized by ISS pensions, today called Colpensiones.                                                                                                              | 1.013  |
|      | Carmen Alicia Rodríguez        | Indexation payment, in their condition as pensioned and/or pension substitutes to the all the plaintiffs and to pay the interest at the maximum legal rate contemplated in Law 100 of 1993 in its article 141.                                                                       | 862    |
|      | Jose Francisco Arango Bautista | Material damages /moral damages/damage to the relational life.                                                                                                                                                                                                                       | 710    |
|      | Sandra María Castillejos       | Declare CENS administratively and non-contractually responsible for the death of Mr. Jose Alfredo Rojas. The value which CENS was sentenced to pay at the lower court is established.                                                                                                | 664    |
|      | Carmen Rosa Galvis Urbina      | Declare non-contractually responsible to CENS and to Ingenieria and Servicios Union Temporal for the damages caused to the plaintiff on occasion of the death of Freddy Diaz/Moral Damages/Consolidated and future material damages.                                                 | 640    |

|                   |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |
|-------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| CENS              | Ermelina Pérez De Rivera          | Declare that CENS has the obligation to continue paying all the health contributions as an acquired right in favor of the plaintiffs and it is ordered to continue paying 12% on the pension payment as right legally in accordance with the labor agreement in affect at the time of the retirement; in addition to reimburse the contributions not paid from the date that the pension was shared, subject to indexation, plus default interest.                                                                                                                                           | 630           |
|                   | Yesid Jaimes                      | Pension adjustment pursuant to article 1 of Law 71 of 1988 and not to those provided in article 14 of Law 100 of 1993, pay retroactively the sums omitted to pay, the respective indexation and the default interest referred to by article 141 of Law 100 of 1993.                                                                                                                                                                                                                                                                                                                          | 504           |
|                   | Carlos Enrique Salamanca Soto     | They request the continuity in the payment of 12% on the pension payment, reimbursing the contributions discounted from the time that the pension was shared, subject to indexation, and to the payment of default interest of article 141 of Law 100 of 1990. plus the court fees.                                                                                                                                                                                                                                                                                                          | 483           |
|                   | German Francisco Silva Bermudez   | That CENS be declared civilly responsible/Material damages in the form of consequential damages for the death of the horses and the damage of the stables.                                                                                                                                                                                                                                                                                                                                                                                                                                   | 377           |
|                   | Daniel Orlando Suárez Navas       | Refund of 12% health contributions to people pensioned.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 315           |
|                   | Bersaline Ortiz Llanez            | Demands the repair of the loss of the possibility of performing vital activities, which although do not produce any returns, make existence more pleasant. The basis for determination of these values of PHYSIOLOGICAL DAMAGE is the case law from the Council of State, therefore it is assessed at 100 MMLWE (minimum monthly legal wages in effect) for each member of the family (wife and daughter). As a consequence of the above, it is necessary to pay for the pain, suffering and sadness produced by the action that gave rise to the responsibility, assessing it at 100 MMLWE. | 291           |
|                   | Sociedad Palmas Las Llanas S.A.S. | That CENS be declared civilly responsible in the modality of third party civil liability for damages of various types./Consequential Damage/ lost profits /moral damage.                                                                                                                                                                                                                                                                                                                                                                                                                     | 117           |
|                   | Other administrative processes    | Other administrative processes (2) lower than \$250 million.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 336           |
|                   | Other labor processes             | Miscellaneous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 851           |
| <b>Total CENS</b> |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>29.358</b> |



|      |                                        |                                                                                                                                                                 |               |
|------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|      | Jairo Castaño Hoyos                    | Lost profits                                                                                                                                                    | 1.969         |
|      | Cartones y Papeles Del Risaralda S.A.  | Repair and payment of material damages.                                                                                                                         | 1.866         |
|      | Norma Cecilia Osorio Montoya           | Moral damages.                                                                                                                                                  | 1.830         |
|      | Albeiro Valencia Lopez                 | Claim of moral damages.                                                                                                                                         | 1.766         |
|      | Leidy Marcela Jimenez Jaramillo        | Lost profits.                                                                                                                                                   | 1.489         |
|      | José Ivan Valencia Rendón and others   | Indemnification for material damages                                                                                                                            | 1.392         |
|      | Claudia Viviana Morales                | Material damages                                                                                                                                                | 923           |
|      | Jhon Fredy Vanegas Hoyos               | Moral damages                                                                                                                                                   | 785           |
|      | Jose Fernando Jiménez Vélez            | Salary and fringe benefits adjustment                                                                                                                           | 746           |
|      | Maria Doris Idaraga and others         | Work accident of worker Darío García Ríos.                                                                                                                      | 700           |
|      | Erasmio Antonio Pinestroza and others  | Employer's fault work accident                                                                                                                                  | 654           |
|      | Carlos Arturo Marulanda Agudelo        | Moral damages                                                                                                                                                   | 636           |
|      | Jairo Humberto Bedoya Moreno           | Moral damages                                                                                                                                                   | 546           |
|      | Jose Libardo Alzate Restrepo           | Reality contract.                                                                                                                                               | 490           |
|      | Hernando Montoya Loaiza                | Moral damages                                                                                                                                                   | 435           |
|      | Aleyda Del Socorro Giraldo             | Labor accident, moral damages                                                                                                                                   | 419           |
| CHEC | Ramiro Vasquez Suarez and others       | Permanent per diem - social security contributions                                                                                                              | 415           |
|      | Luis Alberto Merchan Gómez             | Consequential damage claimed                                                                                                                                    | 264           |
|      | Jhon Fernely Diaz Cardona              | Rehiring for termination without cause                                                                                                                          | 194           |
|      | Camilo Donado Barcelo                  | Termination of agreement without cause - Rehiring                                                                                                               | 191           |
|      | Mario Romero Londoño                   | Employer's fault work accident                                                                                                                                  | 172           |
|      | Jhon Jairo Vanegas Hoyos               | Moral damages are claimed                                                                                                                                       | 163           |
|      | María Lucidian Marín R.                | Fringe benefits, vacations, default indemnification                                                                                                             | 120           |
|      | Jairo Antonio Amariles Marulanda       | Public apology and payment of indemnification.                                                                                                                  | 119           |
|      | Jesús Maria Vanegas Villa              | Only moral damages are claimed.                                                                                                                                 | 115           |
|      | Jorge onzalo Guapacha                  | Termination of agreement without cause                                                                                                                          | 134           |
|      | Jose Diofante Bonil López              | Termination of agreement without cause                                                                                                                          | 137           |
|      | Juan Carlos Pérez Vasquez              | Termination of agreement without cause                                                                                                                          | 130           |
|      | Other administrative and civil actions | Administrative processes                                                                                                                                        | 1.724         |
|      | Other labor processes                  | Other lawsuits for permanent per diem; social security contributions; recognition of retroactive payments; recognition 100% of 14th monthly payment and others. | 1.233         |
|      | <b>Total CHEC</b>                      |                                                                                                                                                                 | <b>21.757</b> |

|                   |                                 |                                                                                                                                                                                                                                   |              |
|-------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| EDEQ              | Fanny Henao Cuervo              | Indemnification for damages generated by the death of worker hired by EDEQ contractor engineer in accident that occurred in performance of electric works.                                                                        | 1.832        |
|                   | José Anibal Gallego Peláez      | Declaration of Third Party Civil Liability for material and moral damages derived from the injuries suffered by Mr. Jose Anibal Gallego Pelaez in events occurred on April 12, 2003 in the school Antonio Nariño of Pueblo Tapao. | 618          |
|                   | Maria Lindelia Vargas Molina    | Indemnification for damages generated by the death of worker hired by EDEQ contractor engineer in accident that occurred in performance of electric works.                                                                        | 492          |
|                   | Sorleny Gamba Aldana and others | Work accident suffered by Mr. Golver Enrique Rincon Yate in events occurred on October 10, 2007 when performing electric works in the circuit Baraya El Cusco.                                                                    | 247          |
|                   | Erick Alex Aguirre              | Indemnification for injuries caused by electric shock by internal transformer of Pardo Cruz Building Armenia.                                                                                                                     | 246          |
| <b>Total EDEQ</b> |                                 |                                                                                                                                                                                                                                   | <b>3.435</b> |

|      |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |
|------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
|      | Hernán Uribe Niño               | Lawsuit for work accident, which generated disability certificate resulting from failure to comply with prevention measures and health rules by ESSA.                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1.116 |
|      | Juan Gabriel Henao Mantilla     | Lawsuit for work accident, which generated disability certificate resulting from failure to comply with prevention measures and health rules by ESSA.                                                                                                                                                                                                                                                                                                                                                                                                                                   | 799   |
|      | Luis Antonio Manrique Hernandez | Lawsuit for full and ordinary indemnification of the material damages corresponding to consolidated lost profits, caused on occasion of the work accident dated July 21, 2008                                                                                                                                                                                                                                                                                                                                                                                                           | 556   |
|      | Martha Cecilia Rodriguez Ardila | The plaintiffs request that ESSA be declared responsible for all the damages that have been caused to the them, for the events resulting in the death of Mr. HUGO FELIZ DUARTE ROJAS, 1000 GRAMS OF GOLD, in events occurred on January 9, 1991.                                                                                                                                                                                                                                                                                                                                        | 347   |
|      | Maria Rosa Niño Jurado          | That ESSA SA ESP be declared administratively responsible for all harm and damages both moral and material (consequential damage and lost profits) that were caused to the plaintiff on occasion of the events occurred on December 8, 2010 in farm called "SAN JOSE" located in the village "Santa Barbara" in the jurisdiction of the municipality of Santa Barbara, Santander, in which the minor ANDRES FELIPE MANTILLA NIÑO was seriously injured by receiving an electric shock from the power towers that are installed in the mentioned farm and that are owned by ESSA SA ESP. | 267   |
|      | Carlos Eduardo Solano           | Declare ESSA administratively responsible for the damages caused to the plaintiffs on occasion of the death of MAURICIO SOLANO CAMACHO, and as consequence thereof to pay the plaintiff moral and material damages.                                                                                                                                                                                                                                                                                                                                                                     | 246   |
|      | Maria Yasmina Sanabria Mejía    | Declare ELECTRIFICADORA DE SANTANDER S.A ESP, CHARTIS SEGUROS, SEGUROS DEL ESTADO, H-V CONSTRUCTORES LTDA, CPI CENTRAL DE PROYECTOS E INGENIERIA LTDA AND CARLOS JULIO HERRERA SUAREZ administratively and non-contractually responsible for the damages caused to the plaintiff, on occasion of the INDISCRIMINATE FELLING OF TREES THAT CAUSED EROSION IN THE FARM OWNED BY MY CLIENT AND INVASION OF PRIVATE PROPERTY                                                                                                                                                                | 224   |
|      | Ana Felisa Torres Roncancio     | That ESSA be sentenced to pay damages for the death of Pedro Nel Vargas/that ESSA be sentenced to pay indemnification for the death of Mr. Pedro Nel Vargas /that ESSA be sentenced to the payment of damages for the death of Pedro Nel Vargas.                                                                                                                                                                                                                                                                                                                                        | 175   |
|      | Eduardo Portilla Plata          | That ESSA be declared non-contractually responsible for the damages caused to the plaintiff.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 150   |
|      | Juana Martínez Fonseca          | Indemnification for Damages for the death of Mr. Alvaro Martinez on December 15, 2006 in the farm La Floresta, Municipality of Mogotes.                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 145   |
|      | Jesús Rodriguez Alarcon         | Recognition of healthcare to the family group, scholarships or study aids.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 91    |
| ESSA | Alirio Aparicio Lopez           | Recognition of healthcare to the family group, scholarships or study aids.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 91    |
|      | Néstor Eugenio Sandoval Morales | Recognition of healthcare to the family group, scholarships or study aids.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 91    |
|      | Alberson Carmona Castaño        | Severally liable under labor agreement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 90    |

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |              |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Carmen Smith Granados De Acelas        | That ESSA SA ESP be declared administratively responsible for all the material harm and damages caused by the installation of 2 towers that support electric power networks and that have prevented the ultimate end whereby the plaintiff acquired the property (to construct a home)                                                                                                                                                                          | 78           |
| Mercedes Ardila De Ballesteros Y Otros | Recognition of healthcare to the family group, scholarships or study aids.                                                                                                                                                                                                                                                                                                                                                                                      | 72           |
| Hernando Serrano Forero                | Recognition of healthcare to the family group, scholarships or study aids.                                                                                                                                                                                                                                                                                                                                                                                      | 67           |
| Néstor Raúl Pinzón Seija               | Recognition of healthcare to the family group, scholarships or study aids.                                                                                                                                                                                                                                                                                                                                                                                      | 66           |
| Héctor Ojeda Mendoza                   | Lawsuit for work accident and failure to comply with prevention measures and health standards by ESSA                                                                                                                                                                                                                                                                                                                                                           | 63           |
| Hernando Picón González                | Recognition of healthcare service family group, scholarships or study aids                                                                                                                                                                                                                                                                                                                                                                                      | 50           |
| Edy Alexandra Leal Castañeda           | That it will be declared that between Ms. EDDY ALEXANDRA LEAL CASTAÑEDA and ELECTRIFICADORA DE SANTANDER S.A E.S.P an employment agreement existed in writing for an indefinite term from October 10, 2007, which had as termination date of May 12, 2015 by the worker's resignation.                                                                                                                                                                          | 48           |
| Karem Stella Gómez Bohada              | That it will be declared that between Ms. KAREM STELLA GOMEZ BOHADA and ELECTRIFICADORA DE SANTANDER S.A E.S.P a labor agreement existed in writing for an indefinite term from January 2, 2009, which terminated on April 30, 2015.                                                                                                                                                                                                                            | 42           |
| Gerardo Vargas Barón                   | Disability pension                                                                                                                                                                                                                                                                                                                                                                                                                                              | 26           |
| Carolina Herrera De Ortiz              | Lawsuit on the retirement pension of her deceased husband Mr. PAULINO ORTIZ LUNA                                                                                                                                                                                                                                                                                                                                                                                | 13           |
| Rosario Flórez Garcia                  | That it will be declare that Ms. ROSARIO FLOREZ GARCIA meets the requirements of law to be beneficiary of an OLD AGE PENSION payable by COLPENSIONES and consequently, SECOND, that THE METROPOLITAN WATER SUPPLY COMPANY OF BUCARAMANGA is responsible for assuming and transferring the values that may correspond for the failure to make the contributions for her pension for the period from December 14, 1966 to July 31, 2968 in favor of Colpensiones. | 12           |
| Víctor Manuel Diaz Domínguez           | That the plaintiff be recognized and paid the damages that up to this date have been cause by the right of way imposed on the premises of the plaintiff.                                                                                                                                                                                                                                                                                                        | 9            |
| Pablo Armando Buitrago                 | ESSA is declared responsible for the material and moral damages caused to the plaintiff for the de facto public works imposed to the land of farm Corinto located in the municipality of Suaita, North of Santander, owned by the plaintiff.                                                                                                                                                                                                                    | 4            |
| <b>Total ESSA</b>                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>4.938</b> |

|                                            |                                                                                                                                |                                                                                                                                       |               |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Empresas<br>Públicas de<br>Rionegro        | Gloria Patricia Gómez Alzate y otros                                                                                           | Complaints on environmental matters by the community in the sectors of EL Burro, el Rosal, Mirador del Lago and San Antonio           | 3.614         |
|                                            | Fabiola Alzate and others                                                                                                      | Lawsuit for automobile accident                                                                                                       | 1.772         |
|                                            | DIAN (National Tax Administration)                                                                                             | Tax contingencies                                                                                                                     | 1.506         |
|                                            | Santa Ana Village                                                                                                              | Discontinuity and deficiencies in the provision of the water supply service                                                           | 1.502         |
|                                            | Superintendency of Domiciliary Public Utilities                                                                                | Infringement in the remittance of the information to the SUJ regarding Company reports and information                                | 1.470         |
|                                            | Superintendency of Domiciliary Public Utilities                                                                                | Non-fulfillment of the obligation to send the AGA minutes of the company                                                              | 1.001         |
|                                            | Cornare                                                                                                                        | Improper disposal of muds generated in the wastewater potabilization and treatment process.                                           | 980           |
|                                            | Cornare                                                                                                                        | Initiation of the environmental penalization process. Resolution 112-1111-2017 of March 27, 2017                                      | 901           |
|                                            | Cornare                                                                                                                        | Lack of evidence of fulfillment of the obligations of the water concessions                                                           | 701           |
|                                            | Cornare                                                                                                                        | Lack of evidence of fulfillment of the obligations of occupation of water bed                                                         | 701           |
|                                            | Cornare                                                                                                                        | Non-fulfillments of the values and maximum parameters of the spillages and efficiency of removal of the wastewater treatment system   | 686           |
|                                            | Liliana Román and Diego Henao                                                                                                  | Potential lawsuit for a minor child's drowning                                                                                        | 570           |
|                                            | Blanca Zapata and Fabio Díaz                                                                                                   | Process of direct repair to Blanca Zapata and Fabio Díaz                                                                              | 272           |
|                                            | Diego Nicolás Botero                                                                                                           | Court Process Diego Bogota - Manager                                                                                                  | 186           |
|                                            | General Controller's Office of Antioquia                                                                                       | Results of final Audit report for period 2015-2016 of March 2017. Tax Finding.                                                        | 132           |
|                                            | Various                                                                                                                        | Failure to pay the special contribution for public works contracts - Contract CABS - 036-2015                                         | 111           |
|                                            | Fabio Iván Suárez                                                                                                              | Lawsuit for protection of rights for reemployment of personnel dismissed for forced labor stability (Health) Fabio Ivan Suarez Torres | 97            |
|                                            | Cornare                                                                                                                        | Five-year plans                                                                                                                       | 88            |
|                                            | Cornare                                                                                                                        | Contingency plan by Cornare                                                                                                           | 78            |
|                                            | Francisco Javier García                                                                                                        | Ordinary process Francisco Javier Gaviria                                                                                             | 69            |
| Cornare                                    | Lack of evidence of fulfillment of compensation obligations                                                                    | 60                                                                                                                                    |               |
| Luis Enrique Jaramillo                     | Lawsuit for automobile accident Luis Enrique Jaramillo Alzate                                                                  | 37                                                                                                                                    |               |
| Vereda Santa Ana                           | Class action for failures in the service of the Santa Ana village                                                              | 36                                                                                                                                    |               |
| Various                                    | Real properties registered under the domain of Aguas de Río Negro S.A E.S.P. Registration of the properties in the new company | 2                                                                                                                                     |               |
| <b>Total Empresas Públicas de Rionegro</b> |                                                                                                                                |                                                                                                                                       | <b>16.573</b> |

|                                     |                                              |                                                                       |                |
|-------------------------------------|----------------------------------------------|-----------------------------------------------------------------------|----------------|
| ENSA                                | Alex Montenegro and other                    | Civil suit for performance of project of the Llano Bonito substation. | 369            |
|                                     | Electrical Technology                        | Civil suit for discount made in its invoices.                         | 18             |
|                                     | Aristides Contreras and other                | Other processes                                                       | 298            |
| <b>Total ENSA</b>                   |                                              |                                                                       | <b>685</b>     |
| DELSUR                              | San Esteban Catarina Mayor's Office          | Municipal taxes                                                       | 18             |
|                                     | Mayor's Office of San Salvador               | Municipal taxes for pole installations.                               | 28             |
|                                     | AGEPYM                                       | Claim for wrong rate classification.                                  | 32             |
|                                     | ALECAR                                       | Claim for damage appliances.                                          | 35             |
|                                     | SIGET                                        | Rate adjustments.                                                     | 651            |
|                                     | Miscellaneous employees                      | Claim for labor indemnification.                                      | 264            |
| <b>Total DELSUR</b>                 |                                              |                                                                       | <b>1.028</b>   |
| Other subsidiaries                  | Emvarias S.A.                                | Miscellaneous litigations.                                            | 6.285          |
|                                     | Aguas de Antofagasta S.A.                    | Miscellaneous litigations.                                            | 4.728          |
|                                     | Aguas de Malambo S.A.                        | Miscellaneous litigations.                                            | 455            |
|                                     | Empresa de Aguas del Oriente Antioqueño S.A. | Miscellaneous litigations.                                            | 148            |
|                                     | Aguas de Regionales S.A.                     | Miscellaneous litigations.                                            | 52             |
|                                     | Aguas Nacionales S.A.                        | Miscellaneous litigations.                                            | 7              |
|                                     | Other subsidiaries                           | Miscellaneous litigations.                                            | 194            |
|                                     | <b>Total other subsidiaries</b>              |                                                                       |                |
| <b>Total litigations recognized</b> |                                              |                                                                       | <b>269.083</b> |

- Amounts expressed in millions of Colombian pesos

#### 27.1.4 Joint ventures

It corresponds to contingent considerations related to the acquisition of the subsidiaries Espiritu Santo Energy S. de R.L. and Empresas Varias de Medellín S.A. E.S.P. - EMVARIAS, the balance as of December 31, 2017 amounted to \$125,428 (2016: \$129,076) and \$19,025 (2016: \$18,337), respectively.

The main assumptions considered in the calculation of the contingent consideration related to the acquisition of Espiritu Santo are: estimated date of occurrence of milestones associated to the contingent payment, probability of occurrence associated, and additionally the discount of the flows of payments was considered applying a discount rate (Libor Rate) in accordance with the risk of the liability. As of this date no future events have been evidenced that may affect the calculation of the provision.

The main assumptions used in the future events of the contingent consideration related to the acquisition of EMVARIAS are: ongoing litigation against EMVARIAS at the date of the transaction, definition of the year of materialization of each litigation, definition of the related value to each of the disputes, estimate of future contingent expenses related to the litigation estimated for each year and discount rate (TES fixed rate) to discount future contingent expenditure flows. To date, there have been no future events that could affect the calculation of the provision.

#### 27.1.5 Other provisions

The Group maintains other provisions for events such as: employer's policy, multiplier points, Somos program, technical reserve and provision for high-cost and catastrophic diseases, compensation to customers for non-compliance with the quality of service standards, which are regulated by the Authority National Public Services of Panama (ASEP), provision for compliance with the indicators of quality and energy not served.

Includes in the subsidiary Aguas Nacionales EPM S.A. E.S.P. provisions for \$ 15,274 related to disputes presented by the CICE and HHA consortia of a contractual, non-judicial nature. The CICE consortium built the Northern Interceptor. The HHA Consortium is in charge of building the Wastewater Treatment Plant

in Bello and the points under discussion are related to deadline, design engineering and financial issues. The main assumptions considered in the calculation for each type of provision are the same as those applied to litigation.

The increase was due to an addition in the provision of an environmental sanction with CORANTIOQUIA.

The main assumptions considered in the calculation for each type of provision are:

**Employer policy:** Awarded to EPM servers as an extralegal benefit. An aggregate deductible was contracted from November 1, 2016 through December 31, 2018, for \$ 5,500. The main assumptions considered in the calculation for each type of provision are: discount rate TES fixed rate, estimated value to be paid and estimated date of payment. To date, there have been no future events that could affect the calculation of the provision.

**Multiplying points:** granted in EPM to workers. The points obtained in the year must be recognized at the request of the interested party or by decision of the Human Talent Development Directorate each time that there is an accounting closing of the period and must be paid through the payroll. The value of each point is equivalent to 1% of the MMLWE and the points should not be accumulated from one year to the next.

**Somos Program:** The program operates under the modality of accumulation of points. According to the statistics' behavior the points are accounted for with a probability of 80% redemption.

**Technical reserve:** The base to calculate the reserve is that corresponding to all the authorization of services issued and that on the closing date in which the reserve is going to be calculated have not been collected, except those that correspond to authorizations with over twelve months of issue or those that after at least 4 months of having been issued, there is evidence that they have not been used.

**High cost and catastrophic diseases:** The base for calculation of said provision is that corresponding to the analysis of the entire population served of affiliates and beneficiaries of the Entidad Adaptada de Salud (EAS) of EPM, that suffer any of the authorized pathologies.

**Delay transmission projects:** This provision is due to the payment of guarantees by EPM for the non - entry into operation of the Bello - Guayabal - Ancón and Nueva Esperanza projects.

For other provisions, the main assumptions considered in the measurement are: It is estimated that the life expectation, estimated payment date, estimated payment value, discount rate calculated with reference to the market returns of bonds issued by the National Government.

Likewise, as of December 31, 2017, the technical reserves associated with the obligations of insurance contracts are included, which are detailed in section 26.2 Technical reserves of insurance detailed in this note.

#### 27.1.6 Estimated payments

The estimate of the dates on which the Group considers that it will have to face the payments related to the provisions included in the Consolidated statement of financial position as of the report date, is the following:

|              | Desmantling or restoration | Onerous contracts | Litigation     | Business combination | Others        | Total          |
|--------------|----------------------------|-------------------|----------------|----------------------|---------------|----------------|
| 2018         | 21.685                     | 28.002            | 153.333        | 12.003               | 21.644        | 236.667        |
| 2019         | 12.894                     | 29.673            | 26.432         | 117.996              | 3.344         | 190.339        |
| 2020         | 4.682                      | 29.214            | 39.033         | 3                    | 2.910         | 75.842         |
| 2021 y otros | 37.288                     | -                 | 48.128         | 6.956                | 14.802        | 107.174        |
| <b>Total</b> | <b>76.549</b>              | <b>86.889</b>     | <b>266.926</b> | <b>136.958</b>       | <b>42.700</b> | <b>610.022</b> |

- Amounts expressed in millions of Colombian pesos -

## 27.2. Insurance technical reserves

The technical reserves associated to the obligations of insurance contracts are detailed below:

| Insurance technical reserves            | 2017           | 2016     |
|-----------------------------------------|----------------|----------|
| Reserve of losses payable               | 92.550         | -        |
| Reserve of losses incurred not reported | 32.350         | -        |
| Reserve of premium not earned           | 32.979         | -        |
| <b>Total</b>                            | <b>157.879</b> | <b>-</b> |

- Amounts expressed in millions of Colombian pesos -

The movement of insurance technical reserves is as follows:

| 2017                                    | Beginning balance | Adjustments in technical reserves | Ending balance |
|-----------------------------------------|-------------------|-----------------------------------|----------------|
| Reserve of losses payable               | 8.948             | 83.602                            | 92.550         |
| Reserve of losses incurred not reported | 23.914            | 8.436                             | 32.350         |
| Reserve of premium not earned           | 37.064            | (4.085)                           | 32.979         |
| <b>Total</b>                            | <b>69.926</b>     | <b>87.953</b>                     | <b>157.879</b> |

- Amounts expressed in millions of Colombian pesos -

## 27.3. Contingent liabilities and assets

The breakdown of liabilities and contingent assets is as follows:

| Type of contingency | Contingent liabilities | Contingent assets | Net                |
|---------------------|------------------------|-------------------|--------------------|
| Litigation          | 1.024.395              | 333.191           | (691.204)          |
| Guarantee           | 243.218                | 133               | (243.085)          |
| Others              | 446.632                | -                 | (446.632)          |
| <b>Total</b>        | <b>1.714.245</b>       | <b>333.324</b>    | <b>(1.380.921)</b> |

- Amounts expressed in millions of Colombian pesos -

The Group has litigations or procedures that are currently in process with the legal, administrative and arbitration bodies.

As of December 31, 2017, the net estimated value determined by the expert's payable by the Group in respect to the contingent liabilities and assets is of \$1,380,921.

The main litigations pending of resolution and judicial and extrajudicial disputes in which the Group is a party to as of the report date, are indicated below:

### 27.3.1 Contingent liabilities



| Company          | Third Party                                                                          | Claim                                                                                                                                                                                                                                                                      | Value          |
|------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| EPM              | Inciviles                                                                            | To declare the nullity of Resolutions 0041 of January 21, 2005 and 00283 of April 21, 2005 issued by EPM where the risk of non-fulfillment of contract No. 020113590 was declared.                                                                                         | 436.869        |
|                  | National Coffee Growers Federation                                                   | Recognition and payment of the investments made by the National Federation of Coffee Growers of Colombia in electric infrastructure works.                                                                                                                                 | 102.387        |
|                  | Compañía Minera La Cuelga Ltda.                                                      | Indemnification of all economic damages caused to Compañía Minera La Cuelga, which have their origin in the works of construction, filling of the dam and commissioning of the Porce III hydroelectric project.                                                            | 36.644         |
|                  | Energía Del Rio Piedras S.A. E.S.P.                                                  | To declare that EPM has the obligation to pay the energy that ERP sells to it at the contract prices without limitation.                                                                                                                                                   | 13.040         |
|                  | Aura De Jesús Salazar Mazo                                                           | Infringing and putting at risk the collective right, by destructing, interrupting and cutting the ancestral horse trails that lead to the village Alto Chiri from the municipality of Briceño to the village Valle de Toledo.                                              | 9.572          |
|                  | Oscar Antonio Giraldo Avendaño                                                       | That EPM and other entities be declared responsible for damages caused to the plaintiffs for the landslides in Calle Vieja of the neighborhood La Gabriela Bello on December 5/2010.                                                                                       | 7.203          |
|                  | Industrias Lehner S.A.                                                               | To declare that in the performance of contract No. SCN-3225E an economic unbalance was produced between the considerations of the parties and in disfavor of the contractor.                                                                                               | 6.867          |
|                  | CONINSA S.A.                                                                         | To declare that EPM incurred in breach of contract No. 2/DJ-2183/43 and its additional agreement, for the non payment of the damages suffered, originating an economic unbalance by not having recognized timely the value of the higher costs suffered by the Consortium. | 6.133          |
|                  | Velpa Soluciones Integrales                                                          | That EPM will be sentenced to pay to Velpa Soluciones Integrales S.A. for the damages suffered by rejecting their proposal, within the contracting process No. 2009-0927, and having granted it to the firms ELECTROLUMEN Ltda and MELEC S.A.                              | 5.144          |
|                  | Alejandra Betancur Giraldo                                                           | Declare that EPM, the municipality of Girardota and INGELEL, are responsible for the de facto occupation of the premises of the plaintiffs.                                                                                                                                | 5.122          |
|                  | Mateo Aristizábal Tuberqui                                                           | That EPM is responsible for the material damages, caused between November and December 2009 to the family business called Hosteria Los Recuerdos, by the operation of the Guatape hydroelectric plant and of the Peñol-Guatape dam.                                        | 4.992          |
|                  | Various administrative                                                               | Processes for amounts under \$5,218 million pesos.                                                                                                                                                                                                                         | 145.396        |
| Labor lawsuits   | Reimbursements, salary equalizations, overtime, conventional benefits, among others. | 10.166                                                                                                                                                                                                                                                                     |                |
| <b>Total EPM</b> |                                                                                      |                                                                                                                                                                                                                                                                            | <b>789.535</b> |

|                               |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       |
|-------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| <b>Aguas Nacionales</b>       | Tarento Residential Complex               | Enforcement of guarantee: Monetary recognition for the damages caused during the heavy rain that took place in the month of March 2006, which caused a flood in the residential complex, where a works contract was being performed where the works supervision was being carried out.                                                                                                                                                                                                                                                                                                                                        | 8.322 |
|                               | Maité Valderrama Forero                   | It connects Aguas Nacionales EPM for an enforcement in guarantee through writ of March 2, 2012. Purpose of the Action repair of the damages caused by the floods in the neighborhood Carmen Fontibon Bogota, on March 17, 2006.                                                                                                                                                                                                                                                                                                                                                                                               | 224   |
|                               | Matilde Andrade de palaciód and others    | Declare administratively and severally responsible without division of installments of all damages that the plaintiffs suffered for the reckless and irresponsible conduct that conclusively originated the accident.                                                                                                                                                                                                                                                                                                                                                                                                         | 2.099 |
|                               | Rosalba Valoyes Palomeque                 | That based on article 90 of the NC, the municipality of Quibdó, Aguas Nacionales EPM S.A. ESP, INGECOR S.A.S be declared administratively and severally responsible for all damages caused by the injuries to Ms. Rosalba Valoy Palomeque                                                                                                                                                                                                                                                                                                                                                                                     | 438   |
|                               | Higinio Mena Cordoba                      | That based on article 90 of the NC, the municipality of Quibdó, Aguas Nacionales EPM S.A. ESP, EPQ in Liquidation be declared administratively and severally responsible for the damages that are caused because of the irrigation created, for all the damages caused by the injuries to Mr. Higinio Mena Cordoba.                                                                                                                                                                                                                                                                                                           | 211   |
|                               | Adrian Heber Murillo Ortiz                | In the claims of the lawsuit that the municipality of Quibdo, Aguas del Atrato and Aguas Nacionales E.P.M. S.A. E.S.P., will be declared and sentenced administratively responsible without division of installments for all non-equity damages of a moral kind, of alteration to the conditions of existence and material damages in the modality of consequential damage suffered by all plaintiffs, caused by the negligent, reckless and irresponsible conduct that conclusively originated the accident that caused serious damages to Mr. ADRIAN HEBER MURILLO ORTIZ, which took place on May 30, 2014.                 | 979   |
|                               | Carlos Martinez Pino                      | That the MUNICIPALITY OF QUIBDO-EMPRESA AGUAS NACIONALES EPM S.A. ESP AGUAS DEL ATRATO-EMPRESA PUBLICAS DE QUIBDO EN LIQUIDACION, be declared civilly and administratively responsible for the DAMAGES caused (injuries) to Mr. CARLOS MARTINEZ PINO, when the latter fell in the sewer drain located in the neighborhood Medrano Sector of las Brisas-Municipality of Quibdo. That as consequence of the above, the MUNICIPALITY OF QUIBDO-EMPRESA AGUAS NACIONALES EPM S.A. ESP AGUAS DEL ATRATO-EMPRESA PUBLICAS DE QUIBDO EN LIQUIDACION be sentenced to pay as indemnification, the material and moral damages.          | 29    |
|                               | EEAAB                                     | Recovery for payment by EEAAB of direct repair judgment of Clara Marina Pintos for damages in the performance of works of which Aguas Nacionales was the Works Auditor.                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 20    |
|                               | Wilber Leibin Castillo Borja              | That the equity liability of the company be declare for the death of the wife of the plaintiff, presumptively caused by a transit accident in a rain water drainage grill.                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 944   |
|                               | Compañía Colombiana de Consultores S.A.S. | The plaintiffs request that AGUAS NACIONALES EPM S.A. ESP be declared in breach of contract No. 2014-90000-00147 and consequently that said contract be liquidated in a court, that the company be declared responsible for the damages suffered by the plaintiff COMPAÑÍA COLOMBIANA DE CONSULTORES S.A.S., and that the AGUAS NACIONALES be sentenced to pay / CONSEQUENTIAL DAMAGE: The sum of \$698,743,924, subject to indexation. LOST PROFITS: The damages that may be caused by the non payment of the mentioned sum of money also subject to indexation. This sum, it is indicated, will be determined by an expert. | 445   |
| Other                         | Other                                     | 446.678                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |       |
| <b>Total Aguas Nacionales</b> |                                           | <b>460.389</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |

|                               |                                    |                                                                                                                                                                                                                                                                                                                                                                                         |               |
|-------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Emvarias                      | Jac Vainillal and others           | Direct repair sanitary landfill indemnification community action boards                                                                                                                                                                                                                                                                                                                 | 10.021        |
|                               | Gabriel Hernan Rua                 | Direct repair                                                                                                                                                                                                                                                                                                                                                                           | 1.475         |
|                               | Luis Fernando Hernandez            | Direct repair                                                                                                                                                                                                                                                                                                                                                                           | 980           |
|                               | Ana Ligia Benjumea and others      | Direct repair (Collector vehicle oml 191 injures passenger )                                                                                                                                                                                                                                                                                                                            | 595           |
|                               | Ana Judith Taborda                 | Direct repair (enforcement of guarantee on occasion of tree accident that injures a person)                                                                                                                                                                                                                                                                                             | 581           |
|                               | Ruth Estella Gomez                 | Direct repair for transit accident                                                                                                                                                                                                                                                                                                                                                      | 310           |
|                               | Manuel Alejandro Agudelo Aracely   | Direct repair for transit accident                                                                                                                                                                                                                                                                                                                                                      | 218           |
|                               | Luis Horacio Rincon and others     | Direct repair for injuries caused by falling tree                                                                                                                                                                                                                                                                                                                                       | 209           |
|                               | Luz Elena Montoya Velez and others | Direct repair for transit accident                                                                                                                                                                                                                                                                                                                                                      | 203           |
|                               | Nicolas Botero Pavas               | possessory                                                                                                                                                                                                                                                                                                                                                                              | 60            |
|                               | Apev Laura Chica Valencia Apev     | Pension substitution                                                                                                                                                                                                                                                                                                                                                                    | 58            |
|                               | Luz Marleny Rojo Zapata            | Retirement pension                                                                                                                                                                                                                                                                                                                                                                      | 31            |
|                               | Jorge Hernando Baron Sepulveda     | Conventional retirement pension                                                                                                                                                                                                                                                                                                                                                         | 31            |
|                               | Claudia Monica Patiño              | Direct repair for transit accident                                                                                                                                                                                                                                                                                                                                                      | 26            |
|                               | Martha Cecilia Legarda Ocampo      | Labor liability for solidarity with Coomultreevv contract 140 2010                                                                                                                                                                                                                                                                                                                      | 23            |
| Other                         | Other                              | 185                                                                                                                                                                                                                                                                                                                                                                                     |               |
| <b>Total Emvarias</b>         |                                    |                                                                                                                                                                                                                                                                                                                                                                                         | <b>15.006</b> |
| Aguas de Malambo              | GABRIEL HERNAN RUA                 | DIRECT REPAIR                                                                                                                                                                                                                                                                                                                                                                           | 57            |
|                               | Delfidia Matilde Pertuz Pedroza    | Direct repair for administrative responsibility for the damages of a material and immaterial nature by the accident suffered by her, on August 13, 2015, on occasion of a fall suffered when walking on Calle 4th 2 between carrera 4South and 5South of the Municipality of Malambo - Atlantico, for mismanagement of wastewater that caused crater and sinking of the mentioned road. | 40            |
| <b>Total Aguas de Malambo</b> |                                    |                                                                                                                                                                                                                                                                                                                                                                                         | <b>97</b>     |

|                                          |                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |
|------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| CENS                                     | Orlando Emiro Conteras Velasco y Otros | That it will be declared that the plaintiffs are entitled within their pensioned life to an adjustment of their pension following the parameters indicated in article 1 of Law 71 of 1988 and not those established in article 14 of Law 100 of 1993.                                                                                                                                                                                                                                                                                                                | 1.943 |
|                                          | Geomara Carreño y otros                | For moral damages the sum of 1300 MMLWE. Damage to the relational life /material damages /lost profit.                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1.248 |
|                                          | Eleida Carrascal Velasquez y otros     | Obtaining the recognition and payment by CENS and the Department of North of Santander, in favor of the plaintiff, the value of the material damages (consequential damage, lost profit and moral or immaterial damage) that was caused on occasion of the total destruction of the commercial establishment called Ferreteria and Materiales Diego Alejandro, in events occurred on February 5, 2015, which caused detriment in its equity and to the equity revenues, not only for the lost profits but also for the cost that generated the recovery of the home. | 1.068 |
|                                          | Clínica Oftalmológica Peñaranda S.A.S  | That CENS will be directly and civilly responsible in the modality of non-contractual responsibility of the damages for the destruction of the team Excimer Laser for refractive surgery. Consequently, that the material damages will be paid, in the modality of consequential damage for the value of 120,000,000. Additionally that the default interest paid accrued as of July 25, 2004 up to the time of being effectively paid.                                                                                                                              | 861   |
|                                          | Sara Franco Guerrero y Otros           | That CENS S.A E.S.P and Electroning S.A.S be sentenced to pay for moral damages 100 MMLWE to each of the plaintiffs and the direct victim / pay for damages to relational life 100 MMLWE to each of the plaintiffs. To pay for consolidated lost profits \$21,600,000 and future lost profits \$259,200,000.                                                                                                                                                                                                                                                         | 786   |
|                                          | Jeison orlando ortiz vargas y otros    | Declare CENS and the Municipality of Aguachica - Mayor's Office - Planning Secretary, jointly administratively responsible for all harm and damages caused to the plaintiffs for the death of Mr. Fabio Alberto Ortiz Valenzuela, in events that took place on March 29, 2014, caused by electrocution. /Recognize default interest from its execution. /Sentence the defendant entities to the payment of the court fees and expenses.                                                                                                                              | 758   |
|                                          | Julio Cesar Peña Villamizar and others | Declare CENS responsible for the death of the minor Gerson Fabian Peña Capacho, occurred on October 27, 2006 /Sentence CENS to the payment of moral damages of 100 MMLWE for each one of the 8 plaintiffs /Sentence to the payment of material damages and funeral expenses equivalent to 8 MMLWE /Sentence to the payment of default interest on the amounts that result in favor for the payment of court fees and expenses.                                                                                                                                       | 594   |
|                                          | Luis Freddy Vergel Torrents            | That CENS will be declared responsible for the fire caused in the reaches La Tora and La Azufrada, ordering it to pay the damages as follows. For consequential damage. Lost profits.                                                                                                                                                                                                                                                                                                                                                                                | 459   |
|                                          | Luis Alberto Peña Villamizar           | Plaintiffs requests to be paid the legal and conventional fringe benefits between the periods in which the retirement pension was recognized and August 31, 2009, the recognition of the additional monthly payment of June or the fourteenth monthly payment, default indemnification, subject to indexation and default interest.                                                                                                                                                                                                                                  | 434   |
| Carlos Augusto Rangel Alvarez and others | Conventional benefits                  | 357                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Diomar Jesús Manzano García and others | Declare that CENS and EPM are administratively and materially responsible for the damages caused to Diomar Jesus Manzano García and Marlene Tarazona Bayona, as a result of the failure in the provision of electric power service where a deflagration was generated which affected part of the pasture land, fencing, crops and irrigation hoses, in their property. Default interest on the amounts that result in favor of the plaintiffs, from the date when the payment is to be made until that in which it is effectively made. | 319           |
| Carlos Augusto Ropero Gaona            | That CENS be declared to have violated fundamental rights of the plaintiff, due to the termination of employment with the company with violation of the due process of law to which he was submitted between February 7th and 18th 2013 and the consequential re-hiring.                                                                                                                                                                                                                                                                | 309           |
| Jesus Alejandro Sinisterra             | That CENS S.A. E.S.P. will pay to the plaintiff the money that was illegally discounted from his termination settlement, corresponding to salaries and fringe benefits earned in the period from May 18, 2009 and the date on which he left the company.                                                                                                                                                                                                                                                                                | 256           |
| Other labor processes                  | Other labor processes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2.004         |
| Other administrative processes         | Other administrative processes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1.002         |
| <b>Total CENS</b>                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>12.398</b> |

|                   |                                                        |                                                                                  |        |
|-------------------|--------------------------------------------------------|----------------------------------------------------------------------------------|--------|
| CHEC              | Honorio Herrera López                                  | Material damages                                                                 | 13.032 |
|                   | Municipio de Salamina                                  | Value of energy not generated and distributed                                    | 4.761  |
|                   | María Marleny Montoya De García                        | Damages of a material kind                                                       | 3.619  |
|                   | Mauricio Vélez Giraldo                                 | Harm and damages                                                                 | 1.611  |
|                   | Lucía Mery Cardenas de Hernandez                       | Moral damages                                                                    | 1.562  |
|                   | Heriberto García Giraldo                               | Consequential damages                                                            | 1.437  |
|                   | Jose Gustavo Morales Guarín                            | That the person injured be indemnified                                           | 1.241  |
|                   | Positiva Compañía de Seguros S.A.                      | Positive insurance company claims the refund of the mathematical capital reserve | 926    |
|                   | Diana Ginneth Toro Sánchez                             | Moral damages are claimed                                                        | 918    |
|                   | Edificio Millan & Asociados Manizales                  | Reestablishment of the right                                                     | 832    |
|                   | Alexandra Osorio Ciro                                  | Moral damages                                                                    | 760    |
|                   | Raul Loiza                                             | Equity damages are claimed                                                       | 735    |
|                   | Jose Ancisar Trejos Henao                              | Moral damages                                                                    | 733    |
|                   | Suministros y Proyectos Tecnológicos Eelétricos SYPELC | Refund of discounts made without authorization                                   | 559    |
|                   | Other                                                  | Other                                                                            | 4.365  |
| <b>Total CHEC</b> |                                                        | <b>37.091</b>                                                                    |        |

|      |                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |
|------|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|      | Danielly Arcila de Gil and others        | That the defendants will be declared administratively, non-contractually, severally and materially responsible for the injuries suffered by Ms. Daniella Arcila de Gil, which are consequence of the fall suffered by an iron hook that forms part of the intake box cover, which is made of concrete and belongs of the MUNICIPALITY OF ARMENIA , EMPRESAS PÚBLICAS DE ARMENIA - E.S.P.; and the EMPRESA DE ENERGIA DEL QUINDÍO S.A. E.S.P. EMPRESA DE SERVICIOS PUBLICOS - EDEQ. | 3.001         |
|      | Donaldo Fabián Santander                 | That the defendants will be sentenced severally for the payment of each and all the damages of various types caused to the plaintiffs, because of the serious injuries suffered in events that occurred on July 11, 2012 in the Village of La Palmera, jurisdiction of the Municipality of Salento, Quindio and when he was performing duties proper of her job as lineman.                                                                                                        | 2.398         |
|      | Maria Amparo Fernández Gil               | That the plaintiff will be severally sentenced to the payment of all damages resulting from the death of Mr. Otalvaro Sanchez.                                                                                                                                                                                                                                                                                                                                                     | 2.226         |
|      | Paola Andrea Giraldo Cadrasco and others | Indemnification for damages caused by the death of Wilmer Marin Marulanda on occasion of an electric shock coming from a high tension cable.                                                                                                                                                                                                                                                                                                                                       | 1.786         |
| EDEQ | Wilson Grisales Henao and others         | Declaration of employer fault in the work accident suffered by Mr. Wilson Grisales Henao in events occurred on October 17, 2012 when he was performing electric work in the farm La Montaña village of Pekin, municipality of Quimbaya against the contractor of EDEQ INGELEL S.A.S, consequently sentenced to the payment of the full and ordinary indemnification for damages. EDEQ is severally sued.                                                                           | 1.479         |
|      | Leonilde Jimenez Chala                   | Indemnification for the death of Mr. Sergio Antonio Zuluaga, as consequence of the fall from the second floor that according to the plaintiff is attributed to an electric shock.                                                                                                                                                                                                                                                                                                  | 934           |
|      | Jhon James Montoya Marin and others      | That the entity will be declared administratively responsible to the defendant entity for the damages caused to Mr. Jhon James Montoya Marin and Other as consequence of an electric shock caused by an electric conduction wire.                                                                                                                                                                                                                                                  | 687           |
|      | Sandra Milena Sánchez                    | That the co-defendants will be declared administratively responsible for the events and omissions that caused the death of Mr. Otalvaro Sanchez, and that as consequence of said declaration the co-defendants be sentenced accordingly.                                                                                                                                                                                                                                           | 567           |
|      | Leonardo Castaño López                   | That Mr. Leonardo Castaño Lopez was unfairly fired and therefore he is entitled to the indemnifications that this situation entails.                                                                                                                                                                                                                                                                                                                                               | 429           |
|      | Jhon Jairo Rendón Londoño                | A lawsuit is brought against Instelec and severally against EDEQ for the presumptive unfair termination of Jhon Jairo Rendon Londoño and Indemnification is requested for unfair termination, moral damage, severance and court fees.                                                                                                                                                                                                                                              | 16            |
|      | Other                                    | Others                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 61.284        |
|      | <b>Total EDEQ</b>                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>74.807</b> |

|      |                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        |
|------|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| ESSA | Tomon Ltda.                                                          | The plaintiffs request the declaration of existence of a strategic alliance contract between ESSA and the Temporary Union "San Gil iluminado".                                                                                                                                                                                                                                                                                                                                                    | 5.841  |
|      | Tomon Ltda. (AD-Excludendum)                                         | Se sentence severally to the Electrificadora de Santander, TOMON LTDA. and Aph Servicios Electricos to pay to San Gil Iluminados S.A. consequential damages and lost profits for breach of contract.                                                                                                                                                                                                                                                                                              | 5.794  |
|      | José Manuel Hernández Reyes                                          | To declare Electrificadora de Santander SA ESP responsible for material and moral damages caused for failure or lack of service or of the administration on occasion of the improper and permanent location of the electric interconnection tower in the property located at Transversal 25 No. 1-160 neighborhood Ruitoque Bajo of Floridablanca.                                                                                                                                                | 4.313  |
|      | Helena Morales Pabón<br>Blanca Amelia Morales Castillo<br>and others | To declare ESSA administratively responsible for the moral damages and to the relational life caused by the decease of Joselin Morales Pabon caused by electrocution.                                                                                                                                                                                                                                                                                                                             | 1.956  |
|      | Gerson Emanuel Duarte Pabón                                          | That ESSA will be declared responsible for the damages caused to Gerson Duarte and his family group (4 people) for the damages derived from the improper location of power networks that caused the electrocution of the plaintiff on July 30, 2011, when he was performing work in the property located at Calle 10 with Carrera 14 No. 10-37 San Antonio neighborhood of Piedecuesta. That ESSA be sentenced for material and moral damages resulting from this event.                          | 2.576  |
|      | Ana Aydee Prada Ochoa                                                | Payment of indemnification for death of Mr. Alirio Silva Pimiento in work accident in the Municipality of San Joaquin.                                                                                                                                                                                                                                                                                                                                                                            | 1.592  |
|      | Carlos Enrique Perez                                                 | To declare ESSA administratively responsible for material and non material damages for failure in the service that originated the death by electrocution of Carlos Yovani Perez Diaz                                                                                                                                                                                                                                                                                                              | 1.584  |
|      | Promotora Agrotropical Colombia S.A.S.                               | To declare the nonfulfillment of commercial offer No. on-013-2008 of October 3, 2008 and ESSA will be sentences to pay the corresponding damages.                                                                                                                                                                                                                                                                                                                                                 | 1.110  |
|      | Carlos Jose Slevi Paz                                                | That the nullity of the agreement entered into by ESSA with the municipality of Floridablanca and ESSA and Luces of Floridablanca.                                                                                                                                                                                                                                                                                                                                                                | 18.393 |
|      | Gloria Edilse Gómez                                                  | That ESSA will be declared administratively responsible for the death by electrocution of Omar Mendez Lozano and be sentenced to the payment of moral and material damages.                                                                                                                                                                                                                                                                                                                       | 846    |
|      | Carlos Gerardo Hernandez Florez                                      | Declare the Department of Santander, Municipality of Betulia and Electrificadora de Santander S.A. ESP as administratively responsible severally or individually, as the case may be, for the material and moral damages caused to Mr. CARLOS GERARDO HERNANDEZ FLOREZ for failure or lack of the service of the administration for events occurred on January 7, 2015 that caused the fire in the municipality of Betulia Santander and that affect his real property called Finca Vistahermosa. | 4.769  |
|      | Luis Ernesto Acevedo Silva                                           | That ESSA will be declared responsible for the injuries, consequences, loss of work ability and other damages suffered by Luis Ernesto Acevedo by the fall caused by impact against a pole located near the vicinity of Balcon del Tejar.                                                                                                                                                                                                                                                         | 535    |
|      | Ana Mercedes Leal y otros                                            | Declare ESSA jointly responsible for the damages caused by the death in a work accident of Oscar Alberto Camacho Leal worker of MECM                                                                                                                                                                                                                                                                                                                                                              | 521    |
|      | Gabriel Méndez Jaimes                                                | That ESSA will be declared administratively responsible for damages caused to the Plaintiff.                                                                                                                                                                                                                                                                                                                                                                                                      | 941    |

|                                     |                                        |                                                                    |                  |
|-------------------------------------|----------------------------------------|--------------------------------------------------------------------|------------------|
|                                     | Esther Rosa Cantillo Lascarro          | Damage to the relational life today damage to health /Moral damage | 873              |
|                                     | Other                                  | Other processes                                                    | 6.072            |
| <b>Total ESSA</b>                   |                                        |                                                                    | <b>57.716</b>    |
| <b>ADASA</b>                        | Maritime Authority                     | Other processes                                                    | 1.127            |
| <b>Total ADASA</b>                  |                                        |                                                                    | <b>1.127</b>     |
| <b>ENSA</b>                         | Generating companies                   | To guarantee obligations                                           | 183.440          |
|                                     | National Authority of Public Utilities | To guarantee obligations                                           | 44.760           |
|                                     | Empresa de Transmisión Eléctrica S.A.  | To guarantee obligations                                           | 4.670            |
|                                     | Empresa de Transmisión Eléctrica S.A.  | To guarantee obligations                                           | 8.352            |
|                                     | Ente Operador Regulador de El Salvador | To guarantee obligations                                           | 1.399            |
|                                     | Empresa Nacional de Autopistas S.A.    | Bank guarantee                                                     | 597              |
|                                     | Other                                  | Other processes                                                    | 22.861           |
| <b>Total ENSA</b>                   |                                        |                                                                    | <b>266.079</b>   |
| <b>Total contingent liabilities</b> |                                        |                                                                    | <b>1.714.245</b> |

- Amounts expressed in millions of Colombian pesos -

Regarding the uncertainty in the estimated date of payment and the estimated value to be paid, for contingent liabilities apply the same business rules indicated in note 27.1.3 Litigation

## 27.3.2 Contingent assets

### Litigation

#### Contingent Liabilities - Litigations

| Company          | Third Party                                             | Claim                                                                                                                                                                                                                                                                                        | Value          |
|------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| EPM              | Superintendency of Domiciliary Public Utilities         | The declaration of nullity of Resolution SSPD-2016-8300007575 of March 17, 2016 is requested.                                                                                                                                                                                                | 10.352         |
|                  | Energy and Gas Regulation Commission -CREG              | That the nullity of administrative act issued by the CREG, official communication MMECREG-438 del 28-02-98 whereby the right of petition submitted by EPM is answered.                                                                                                                       | 83.022         |
|                  | Ministry of the Environment and Territorial Development | Declaration of nullity invoked, to declare that within the costs related to the construction and operation of the Hydroelectric Project Porce III, EPM may include the costs related to adjustments and other items.                                                                         | 4.574          |
|                  | Interconexión Eléctrica S.A. E.S.P. ISA                 | It is civilly liable for not recognizing to EPM the value that corresponds to it of the remuneration that ISA received between the years 1995 to 1999 for the line modules that correspond to assets in use of the STN (National Transmission System) in the substations Playas and Guatape. | 3.175          |
|                  | Poblado Club Campestre Ejecutivo S.A.                   | Responsibility for the damage of the water collector owned by EPM that collects and transports the wastewater of the sanitary basin of La Honda stream in the municipality of Envigado.                                                                                                      | 2.969          |
|                  | Other Administrative                                    | Processes for an amount of less than \$2,969 million pesos.                                                                                                                                                                                                                                  | 6.777          |
|                  | Municipality of Bello                                   | Integral nullity of the complex administrative act contained in Resolutions 2717 of 2009 and 0531 of 2010. PTAR Bello.                                                                                                                                                                       | 106.207        |
|                  | Municipality of Bello                                   | Reimbursement of the money paid by EPM corresponding to the determination and liquidation of the goodwill effect, PTAR Bello.                                                                                                                                                                | 100.887        |
|                  | Superintendency of Domiciliary Public Utilities         | That the nullity be declared to resolutions for the official assessment of the special contribution of energy of year 2012.                                                                                                                                                                  | 3.139          |
|                  | Other Tax                                               | Processes for an amount of less than \$3,139 million pesos.                                                                                                                                                                                                                                  | 2.314          |
|                  | The Nation Ministry of Health and Social Protection     | The Ministry of Health has the legal and constitutional obligation to recognize and pay the value of the services provided to the affiliates in respect to the medications and/or procedures, interventions or elements not included in the Mandatory Health Plan (POS).                     | 5.640          |
| <b>Total EPM</b> |                                                         |                                                                                                                                                                                                                                                                                              | <b>329.056</b> |



|                   |                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                         |              |
|-------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| CENS              | Consortio CDE Ltda.-ME Ltda.                                                                          | Obtaining payment of the funds owed in favor of CENS by virtue of contract 064/98 for a value of \$964,967,919                                                                                                                                                                                                                                                                                                          | 1.188        |
|                   | Rubén Dario Sanchez Rubio<br>Compañía de Financiamiento Tuya S.A.S.<br>Seguros Generales Suramericana | That the defendants will become responsible for the consequential damage (\$97,655,292) of which (\$20,524,812) correspond to materials and the remaining labor amount.                                                                                                                                                                                                                                                 | 114          |
|                   | Other                                                                                                 | Other                                                                                                                                                                                                                                                                                                                                                                                                                   | 125          |
|                   | <b>Total CENS</b>                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>1.427</b> |
| EDEQ              | Superintendency of Domiciliary Public Utilities                                                       | That the nullity of the resolutions that assessed the special contribution for Empresa de Energía del Quindío for the term of 2014.                                                                                                                                                                                                                                                                                     | 269          |
| <b>Total EDEQ</b> |                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>269</b>   |
| CHEC              | Consortio CDE Ltda. - ME Ltda.                                                                        | Obtaining payment of the funds that are owed in favor of CENS                                                                                                                                                                                                                                                                                                                                                           | 481          |
|                   | RUBEN DARIO SANCHEZ RUBIO, COMPAÑÍA DE FINANCIAMIENTO TUYA S.A.S. SEGUROS GENERALES SURAMERICANA      | That they become responsible for the damages caused to CENS in the electric infrastructure, of which \$20,524,812 correspond to material damages and the remaining amount to labor.                                                                                                                                                                                                                                     | 334          |
|                   | Municipality of Abrego                                                                                | Quotas shares and pension obligation bonds                                                                                                                                                                                                                                                                                                                                                                              | 328          |
|                   | Undetermined Persons                                                                                  | To sentence the defendants to repair the damages derived from the punishable conduct for manipulation of measurement equipment, made by the user for \$12,052,508 Colombian pesos pursuant to the pre-assessment of the power not billed.                                                                                                                                                                               | 291          |
|                   | Iván Leal Vega                                                                                        | Pension payments paid in excess                                                                                                                                                                                                                                                                                                                                                                                         | 138          |
|                   | Undetermined Persons                                                                                  | That they will be sentenced to repair the damages derived from the punishable conduct for manipulation of measurement equipment, made by the user for \$11,783,891 Colombian pesos pursuant to the pre-assessment of the power not billed.                                                                                                                                                                              | 124          |
|                   | Undetermined Persons                                                                                  | That they will be sentenced to repair the damages derived from the punishable conduct for manipulation of measurement equipment, made by the user for \$ Colombian pesos pursuant to the pre-assessment of the power not billed.                                                                                                                                                                                        | 115          |
|                   | Undetermined Persons                                                                                  | That they will be sentenced to repair the damages derived from the punishable conduct for manipulation of measurement equipment, made by the user for \$6,247,952 Colombian pesos pursuant to the pre-assessment of the power not billed.                                                                                                                                                                               | 100          |
|                   | Undetermined Persons                                                                                  | That within the preliminary inquiry the court will take into account the user's recurrence and the non payment of any value for energy since the month of November 2010, notwithstanding that the property is inhabited and maintaining the use of house appliances existing within the property; also that the plaintiff be sentenced to the payment of the sum of \$5,657,900 for consumption of energy not recorded. | 49           |
|                   | Undetermined Persons                                                                                  | That they will be sentenced to repair the damages derived from the punishable conduct for manipulation of measurement equipment, made by the user for \$4,323,812 Colombian pesos pursuant to the pre-assessment of the power not billed                                                                                                                                                                                | 47           |

|                                                           |                                                              |                                                                                                                                                                                                                                         |                |
|-----------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
|                                                           | Undetermined Persons                                         | hat they will be sentenced to repair the damages derived from the punishable conduct for manipulation of measurement equipment, made by the user for \$3,335,377 Colombian pesos pursuant to the pre-assessment of the power not billed | 29             |
|                                                           | Other                                                        | Other                                                                                                                                                                                                                                   | 90             |
| <b>Total CHEC</b>                                         |                                                              |                                                                                                                                                                                                                                         | <b>2.126</b>   |
|                                                           | Oscar Evelio Gallo Perez and Juan Francisco Perez Piedrahita | Criminal type configuration. Fraud of Fluids. Probative.                                                                                                                                                                                | 8              |
| <b>Total ESSA</b>                                         |                                                              |                                                                                                                                                                                                                                         | <b>8</b>       |
| Emvarias                                                  | Municipality of Heliconia                                    | Notification is made of the updated credit assessment presented by Emvarias on 25/07/2017                                                                                                                                               | 27             |
|                                                           | Municipality of Cocorna                                      | The updated credit assessment is presented by Emvarias                                                                                                                                                                                  | 248            |
|                                                           | Marta Nelly Quintero R                                       | Mortgage foreclosure                                                                                                                                                                                                                    | 30             |
| <b>Total Emvarias</b>                                     |                                                              |                                                                                                                                                                                                                                         | <b>305</b>     |
| <b>Total contingent liabilities - litigations</b>         |                                                              |                                                                                                                                                                                                                                         | <b>333.191</b> |
| <i>Amounts expressed in millions of Colombian pesos -</i> |                                                              |                                                                                                                                                                                                                                         |                |

## Guarantees

The Group has granted the following guarantees:

| Company                                     | Third Party        | Claim                                                                                                             | Value      |
|---------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------|------------|
| ESSA                                        | Seguros del Estado | Created and granted with the purpose of covering litigation process (tax) against the Municipality of Bucaramanga | 133        |
| <b>Total ESSA</b>                           |                    |                                                                                                                   | <b>133</b> |
| <b>Total contingent assets - guarantees</b> |                    |                                                                                                                   | <b>133</b> |

*- Amounts expressed in millions of Colombian pesos -*

### 27.3.4 Estimated payments and collections

The estimate of the dates on which the EPM Group considers that it will have to face the payments related to the contingent liabilities or will receive the collections for the contingent assets included in this note of the consolidated statement of financial condition at the cut-off date, is as follows:

| Año          | Pasivos contingentes | Activos contingentes |
|--------------|----------------------|----------------------|
| 2018         | 942.263              | 33                   |
| 2019         | 130.408              | 205                  |
| 2020         | 18.451               | -                    |
| 2021 y otros | 311.848              | -                    |
| <b>Total</b> | <b>1.402.970</b>     | <b>238</b>           |

*- Cifras en millones de pesos colombianos -*

## Note 28. Other liabilities

The composition of other liabilities is as follows:

| Other liabilities                               | 2017           | 2016           |
|-------------------------------------------------|----------------|----------------|
| <b>Non-current</b>                              |                |                |
| Assets received from customers or third parties | 33.808         | 36.030         |
| Transfer of assets and financial guarantees     | 33.668         | 34.096         |
| Government Grants                               | 25.153         | 26.018         |
| Other deferred receivables                      | 21.228         | 21.298         |
| Revenue received in advance                     | 4.740          | 16.202         |
| Collection for third parties <sup>(1)</sup>     | 10             | 10             |
| <b>Total non-current liabilities</b>            | <b>118.607</b> | <b>133.654</b> |
| <b>Current</b>                                  |                |                |
| Collection for third parties <sup>(1)</sup>     | 97.692         | 109.337        |
| Revenue received in advance                     | 73.189         | 76.026         |
| Transfer of assets and financial guarantees     | 1.621          | -              |
| Government Grants                               | 638            | 558            |
| Assets received from customers or third parties | 7              | -              |
| Other deferred receivables                      | -              | 1              |
| <b>Total other current liabilities</b>          | <b>173.147</b> | <b>185.924</b> |
| <b>Total other liabilities</b>                  | <b>291.754</b> | <b>319.578</b> |

- Amounts expressed in millions of Colombian pesos -

<sup>(1)</sup> Corresponds to collection in favor of third parties for public lighting agreements, collection of receivables, sanitation service, taxes, among others.

### 28.1 Deferred reinsurance commissions

The detail of the deferred reinsurance commissions, which is included in the income received in advance, is as follows:

| Deferred income for reinsurance commission | 2017         | 2016         |
|--------------------------------------------|--------------|--------------|
| Beginning balance                          | 9.052        | 10.282       |
| Amortization                               | (1.764)      | (1.230)      |
| <b>Ending balance</b>                      | <b>7.288</b> | <b>9.052</b> |

Amounts expressed in millions of Colombian pesos -

### 28.2 Governments grants

The movement of government subsidies as of the report date is the following:

| Subsidies                                 | 2017          | 2016          |
|-------------------------------------------|---------------|---------------|
| Beginning balance                         | 26.576        | 28.461        |
| Granted during the period                 | 442           | 255           |
| Recognized in income for the period       | (1.051)       | (1.152)       |
| Difference instead, conversion adjustment | (107)         | (988)         |
| Other changes                             | (70)          | -             |
| <b>Closing Balance</b>                    | <b>25.790</b> | <b>26.576</b> |
| <hr/>                                     |               |               |
| Non-Current                               | 25.152        | 26.018        |
| Current                                   | 638           | 558           |
| <b>Balance as of December 31</b>          | <b>25.790</b> | <b>26.576</b> |

*Amounts expressed in millions of Colombian pesos -*

The EPM Group has received during the period grants from the Inter American Development Bank -IADB - for the financing program to medium and small companies; by Financiera del Desarrollo - FINDETER - as favorable rate credit for the construction of water and sewer infrastructure; by Fondo para la Reconstrucción del Eje Cafetero - FOREC - for the reconstruction of power networks as a consequence of the earthquake the coffee growing area; by the Fondo Financiero para Proyectos de Desarrollo - FONADE - for the promotion of telecommunications in rural schools and by the Oficina Electrificación Rural (Panama) and by the Fondo de Inversión Nacional en Electricidad y Telefonía (El Salvador) for the construction of rural electric infrastructure.

The EPM Group has not failed to comply with any of the conditions related to the grants.

### 28.3 Income received in advance

The detail of the income received in advance of the EPM Group as of the reporting date was:

| Revenue received in advance                         | 2017          | 2016          |
|-----------------------------------------------------|---------------|---------------|
| <b>Non-Current</b>                                  |               |               |
| Sale of energy service                              | 4.168         | 4.220         |
| Leases                                              | 572           | 807           |
| Other income received in advance                    | -             | 11.175        |
| <b>Total non-current income received in advance</b> | <b>4.740</b>  | <b>16.202</b> |
| <b>Current</b>                                      |               |               |
| Sale of energy service                              | 37.927        | 56.156        |
| Other income received in advance                    | 16.295        | 2.689         |
| Sales                                               | 8.731         | 7.246         |
| Sale of fuel gas service                            | 8.330         | 8.746         |
| Sale of cleaning services                           | 1.230         | 677           |
| Leases                                              | 392           | 483           |
| Sale of sewerage service                            | 164           | 31            |
| Sale of aqueduct service                            | 120           | -             |
| <b>Total current income received in advance</b>     | <b>73.189</b> | <b>76.028</b> |
| <b>Total income received in advance</b>             | <b>77.929</b> | <b>92.230</b> |

*Amounts expressed in millions of Colombian pesos -*

## Note 29. Changes in liabilities for financing activities

The reconciliation of the liabilities that arise from the financing activities is as follows:

| Reconciliation of liabilities that arise from financing activities<br>2017 | Beginning<br>balance | Cash flows     | Changes other than to cash   |                | Other changes <sup>1</sup> | Total             |
|----------------------------------------------------------------------------|----------------------|----------------|------------------------------|----------------|----------------------------|-------------------|
|                                                                            |                      |                | Foreign currency<br>movement | Fair value     |                            |                   |
| Long term credits and loans (See note 21)                                  | 12.954.621           | 4.168.859      | 39.878                       | -              | (3.047.116)                | 14.116.243        |
| Short term credits and loans (See note 21)                                 | 1.893.386            | (2.298.354)    | 19.851                       | -              | 3.128.457                  | 2.743.341         |
| Liabilities for leases (See note 23)                                       | 197.214              | (935)          | -                            | -              | 212                        | 196.491           |
| Dividends or surpluses paid (See note 19)                                  | -                    | (1.309.136)    | -                            | -              | 1.609.136                  | 300.000           |
| Dividends or surpluses paid to minority shareholders                       | -                    | (86.328)       | -                            | -              | 86.328                     | -                 |
| Cash flows from financing activities (See note 23)                         | -                    | (15.834)       | -                            | 117.615        | (35.643)                   | 66.138            |
| <b>Total liabilities for financing activities</b>                          | <b>15.045.222</b>    | <b>458.273</b> | <b>59.730</b>                | <b>117.615</b> | <b>1.741.374</b>           | <b>17.422.213</b> |

Amounts expressed in millions of Colombian pesos -

| Reconciliation of liabilities that arise from financing activities<br>2016 | Beginning<br>balance | Cash flows       | Changes other than to cash   |            | Other changes <sup>1</sup> | Total             |
|----------------------------------------------------------------------------|----------------------|------------------|------------------------------|------------|----------------------------|-------------------|
|                                                                            |                      |                  | Foreign currency<br>movement | Fair value |                            |                   |
| Long term credits and loans (See note 21)                                  | 10.380.634           | 2.360.494        | (232.755)                    | -          | 446.249                    | 12.954.621        |
| Short term credits and loans (See note 21)                                 | 4.258.238            | (1.782.164)      | (32.072)                     | -          | (550.615)                  | 1.893.386         |
| Liabilities for leases (See note 23)                                       | 198.404              | (1.190)          | -                            | -          | -                          | 197.214           |
| Dividends or surpluses paid (See note 19)                                  | -                    | (816.521)        | -                            | -          | 816.521                    | -                 |
| Dividends or surpluses paid to minority shareholders                       | -                    | (78.031)         | -                            | -          | 78.031                     | -                 |
| Capital grants                                                             | -                    | 255              | -                            | -          | (255)                      | -                 |
| <b>Total liabilities for financing activities</b>                          | <b>14.837.276</b>    | <b>(317.157)</b> | <b>(264.828)</b>             | <b>-</b>   | <b>789.930</b>             | <b>15.045.222</b> |

Amounts expressed in millions of Colombian pesos -

<sup>1</sup> Includes interest paid during the year for \$ 1,118,565 (2016: \$ 1,041,381), which due to the company's policy are classified as operating activities in the statement of cash flows; the variation in the measurement at amortized cost of credits and loans \$ 1,023,498 (2016: \$ 1,057,231); effect per conversion \$ 174,330 (2016 \$ -108,854); causation of dividends and surpluses \$ 1,695,464 (2016 \$ 894,552); business combination \$ 10,505 (2016 \$ -) and Others \$ 43,858 (2016 \$ -11,617).

## Note 30. Deferred regulatory accounts

The balance of the deferred regulatory accounts as of the date of presentation of the consolidated financial statements corresponds to the local regulatory framework of application to the subsidiary Elektra Noreste S.A. - ENSA, established by the National Authority of Public Utilities of Panama (ASEP). This entity is the one in charge of regulating and establishing the final rates that the Company bills to its customers. The company keeps its accounting records in accordance with the uniform accounts system established by the ASEP for electric companies.

The regulated system under which the company operates permits that any excess or deficiency between the estimated cost of energy considered in the rate and the actual cost incurred by the Company will be included as a compensatory adjustment, to be recovered from or refunded to the customers, in the next rate review. Any excess in the cost of energy charged to customers is accumulated as credit balance in deferred regulatory account in the balance sheets of the company and entails a reduction in the next rate review to be applied to customers. Likewise, any deficient in the cost of energy charge to customers is accumulated as debit balance in deferred regulatory account in the balance sheets of the company and entails an increase in the next rate review to be recovered from the customers.

Deferred regulatory accounts with debit balance represent probable future income associated to certain costs that are expected to be recovered from the customers through the rate. The deferred regulatory accounts with credit balance represent probable reduction in future income associated to amounts that are expected to be credited to the customers through the rate.

The movement of the regulatory accounts is as follows:

| Regulatory accounts                      | Asset (Liability) |               |
|------------------------------------------|-------------------|---------------|
|                                          | 2017              | 2016          |
| Beginning balance                        | 15.813            | (59.891)      |
| Recognized in income for the period      | 33.643            | 72.160        |
| Effects on exchange rate / discount rate | (614)             | 3.544         |
| <b>Closing Balance</b>                   | <b>48.842</b>     | <b>15.813</b> |

Amounts expressed in millions of Colombian pesos -

Balances associated to deferred regulatory accounts in accordance with the regulation must be recovered or refunded in the two following months.

The movement of the deferred tax associated to the regulatory accounts is the following:

| Deferred tax associated with regulatory accounts | Asset (Liability) |                |
|--------------------------------------------------|-------------------|----------------|
|                                                  | 2017              | 2016           |
| Beginning balance                                | (4.744)           | 17.967         |
| Increases                                        | 3.204             | (21.792)       |
| Effect on foreign currency translation           | (13.113)          | (919)          |
| <b>Closing Balance</b>                           | <b>(14.653)</b>   | <b>(4.744)</b> |

Amounts expressed in millions of Colombian pesos -

## Note 31. Revenues from ordinary activities

The detail of revenues from ordinary activities is as follows:

| Income from ordinary activities                   | 2017              | 2016              |
|---------------------------------------------------|-------------------|-------------------|
| Sale of goods                                     | 52.045            | 36.156            |
| Provision of services                             |                   |                   |
| Energy service <sup>(1)</sup>                     | 12.061.012        | 11.706.597        |
| Aqueduct service <sup>(2)</sup>                   | 957.918           | 808.527           |
| Fuel Gas Service <sup>(3)</sup>                   | 730.707           | 802.268           |
| Sanitation service                                | 566.950           | 537.383           |
| Toilet service                                    | 201.047           | 178.602           |
| Other services                                    | 116.546           | 114.592           |
| Construction contracts                            | 43.254            | 114.563           |
| Insurance and reinsurance services <sup>(4)</sup> | 8.222             | 9.186             |
| Computer Services                                 | 339               | 333               |
| Returns <sup>(5)</sup>                            | (241.396)         | (76.987)          |
| <b>Total provision of services</b>                | <b>14.444.599</b> | <b>14.195.064</b> |
| Leases                                            | 76.992            | 62.954            |
| Income from sale of assets                        | 1.647             | 42.112            |
| <b>Total</b>                                      | <b>14.575.283</b> | <b>14.336.286</b> |

Amounts expressed in millions of Colombian pesos -

- (1) In the energy service, the increase in the income is explained mainly by the entry in operation of the Nueva Esperanza electric energy transmission project. Additionally, by the growth of the demand and the increase of energy prices in ENSA and DELSUR.
- (2) In the water supply service the increase occurs by the application of the rate increase in January 2017.
- (3) In the service of fuel gas, the decrease is explained by the sales lower than the thermal ones because in 2016 the operation was affected by El Niño climate cycle.
- (4) It corresponds to the income for commission and premium earned recognized by the affiliate Maxseguros Ltd. for the operations with reinsurance companies.
- (5) The refunds showed an increase by the higher refund of the reliability charge associated to the higher generation of energy.

The Group does not have ordinary income encumbered, contingencies that have not been recognized affecting the income or firm commitments with the customers for the rendering of future services from which it is estimated that losses will be generated.

#### **Construction contracts**

The Group recognized revenue from ordinary activities for asset-building agreements within the scope of IAS 11 Construction Contracts at the report date \$43,254 (2016: \$114,563).

The method applied to determine the degree of progress of the previous construction contracts is the proportion of the costs of the contract incurred in the work already performed as of this date, in relation to the total estimated costs for the contract.

The Group recognized the following values in the period for the agreements in effect at the cut-off date described in the previous paragraph:

| 2017                                                                                                                                 | Costs incurred plus profits recognized | Pending outstanding amounts | Expected losses | Total balance of the statement of financial position | Advances received from customers for construction contracts | Withholdings on payments |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------|-----------------|------------------------------------------------------|-------------------------------------------------------------|--------------------------|
| Convenios Municipio de Medellín                                                                                                      | 30.978                                 | -                           | -               | -                                                    | -                                                           | -                        |
| Convenio Aguas 5 Municipio de Medellín                                                                                               | -                                      | -                           | -               | -                                                    | 452                                                         | -                        |
| Convenio Aguas 6 Municipio de Medellín                                                                                               | -                                      | -                           | -               | -                                                    | (10.521)                                                    | -                        |
| Convenio FAER 2 electrificación rural                                                                                                | -                                      | -                           | -               | -                                                    | (637)                                                       | -                        |
| Convenio Aguas 8 Municipio de Bolívar                                                                                                | -                                      | -                           | -               | -                                                    | 14.653                                                      | -                        |
| Convenio FAER Ituango                                                                                                                | -                                      | -                           | -               | -                                                    | 642                                                         | -                        |
| Otros convenios                                                                                                                      | 1.736                                  | -                           | -               | -                                                    | 551                                                         | -                        |
| EPRIQ- Convenio 073-2017 Optimizar Plantas Petar                                                                                     | -                                      | -                           | -               | -                                                    | 240                                                         | -                        |
| EPRIQ- Convenio 125-2017 Optimizar Petar                                                                                             | -                                      | -                           | -               | -                                                    | 16                                                          | -                        |
| EPRIQ- CONV 149-2017 Optimizar Petar Cimarrona                                                                                       | -                                      | -                           | -               | -                                                    | 171                                                         | -                        |
| EPRIQ- Convenio 179-2017 Bocatoma                                                                                                    | -                                      | -                           | -               | -                                                    | 10                                                          | -                        |
| MALAMBO- Acta de Transacción al acuerdo de gobierno 2013-002297 entre las empresas del grupo EPM número Fundación EPM AT15-2016-0080 | 77                                     | -                           | -               | -                                                    | 24                                                          | -                        |
| CENS- Contrato 1                                                                                                                     | 137                                    | -                           | -               | 422                                                  | 422                                                         | -                        |
| CENS- Contrato 2                                                                                                                     | 93                                     | -                           | -               | 43                                                   | 43                                                          | -                        |
| CENS- Contrato 3                                                                                                                     | 23                                     | -                           | -               | 488                                                  | 488                                                         | -                        |
| CENS- Contrato 4                                                                                                                     | 505                                    | -                           | 100             | 239                                                  | 139                                                         | -                        |
| CENS- Contrato 5                                                                                                                     | 769                                    | -                           | -               | 38                                                   | 38                                                          | -                        |
| ESSA- CAFAER 44 2015 - FAER 384                                                                                                      | 2.384                                  | -                           | -               | -                                                    | -                                                           | -                        |
| ESSA- FAER GGC 382-2016                                                                                                              | 1.135                                  | -                           | -               | -                                                    | 2.286                                                       | -                        |
| ESSA- FAER GGC 381-2016                                                                                                              | 43                                     | -                           | -               | -                                                    | 762                                                         | -                        |
| ESSA- FAER GGC 377 -2016                                                                                                             | 3.573                                  | -                           | -               | -                                                    | 8.925                                                       | -                        |
| ESSA- Fdo Nal Regalias Jesús María                                                                                                   | 90                                     | -                           | -               | -                                                    | -                                                           | -                        |
| ESSA- PRONE GGC 383                                                                                                                  | 228                                    | -                           | -               | -                                                    | -                                                           | -                        |
| ESSA- FAER GGC 426 2015                                                                                                              | 16.742                                 | -                           | -               | -                                                    | -                                                           | -                        |
| ESSA- Otros Contratos de Construcción                                                                                                | -                                      | -                           | -               | -                                                    | 280                                                         | -                        |
| ESSA- Rsos audiencias pbcas                                                                                                          | -                                      | -                           | -               | -                                                    | 1                                                           | -                        |
| ESSA- GOB-ESSA fase V                                                                                                                | -                                      | -                           | -               | -                                                    | 440                                                         | -                        |
| EDEQ-Movimiento de Infraestructura Eléctrica                                                                                         | 32                                     | -                           | -               | -                                                    | -                                                           | -                        |
| CHEC- Otros                                                                                                                          | 10                                     | -                           | -               | -                                                    | -                                                           | -                        |
| PEMEX Tampico (con parte relacionada)                                                                                                | 9.302                                  | -                           | -               | -                                                    | -                                                           | -                        |
| Constellation Brand Planta Mexicali                                                                                                  | 7.422                                  | 52.562                      | -               | -                                                    | 17.528                                                      | -                        |
| Gilbane Alberichi Piedras Negras                                                                                                     | 12                                     | -                           | -               | -                                                    | -                                                           | 3.328                    |
| PTAR's Tuchtlán y Paso el Limón (con parte relacionada)                                                                              | 68                                     | -                           | -               | -                                                    | -                                                           | -                        |
| Lodos potabilizadoras (con parte relacionada)                                                                                        | 9.583                                  | 5.462                       | -               | -                                                    | 9.113                                                       | -                        |
| Apan Green Field                                                                                                                     | -                                      | 39.634                      | -               | -                                                    | -                                                           | -                        |
| Modernización San Fernando (con parte relacionada)                                                                                   | 11.836                                 | 22.956                      | -               | -                                                    | 5.325                                                       | 818                      |
| PROINGE                                                                                                                              | 21                                     | -                           | -               | -                                                    | -                                                           | -                        |
| Mexico - otros                                                                                                                       | 1.084                                  | -                           | -               | -                                                    | -                                                           | -                        |
| EVALIA                                                                                                                               | 467                                    | -                           | -               | -                                                    | -                                                           | -                        |
| ADASA -Copec (Servicio de construcción Túnel para atravesio de agua potable y alcantarillado)                                        | 307                                    | -                           | -               | -                                                    | -                                                           | -                        |
| Eliminaciones operaciones intragupo <sup>(1)</sup>                                                                                   | (55.403)                               | -                           | -               | -                                                    | -                                                           | -                        |
| <b>Total</b>                                                                                                                         | <b>43.254</b>                          | <b>120.614</b>              | <b>100</b>      | <b>1.230</b>                                         | <b>51.391</b>                                               | <b>4.146</b>             |

Amounts expressed in millions of Colombian pesos -



| 2016                                           | Costs incurred plus profits recognized | Pending outstanding amounts | Expected losses | Total balance of the statement of financial position | Advances received from customers for construction contracts | Withholdings on payments |
|------------------------------------------------|----------------------------------------|-----------------------------|-----------------|------------------------------------------------------|-------------------------------------------------------------|--------------------------|
| Convenios Municipio de Medellín                | 5.739                                  | -                           | -               | -                                                    | -                                                           | -                        |
| Convenio Electrificadora de Santander          | 3.545                                  | -                           | -               | -                                                    | -                                                           | -                        |
| Convenio Ministerio de Minas y Energía         | 1.325                                  | -                           | -               | -                                                    | -                                                           | -                        |
| Convenio Aguas 3 Municipio de Medellín         | 1.321                                  | -                           | -               | -                                                    | -                                                           | -                        |
| Convenio Aguas 7 Municipio de Medellín         | 833                                    | -                           | -               | -                                                    | 341                                                         | -                        |
| Convenio Municipio de Caldas                   | 584                                    | -                           | -               | -                                                    | 174                                                         | -                        |
| Convenio Aguas 5 Municipio de Medellín         | -                                      | -                           | -               | -                                                    | 2.385                                                       | -                        |
| Convenio Aguas 6 Municipio de Medellín         | -                                      | -                           | -               | -                                                    | 6.803                                                       | -                        |
| Convenio Gobernación Urabá                     | -                                      | -                           | -               | -                                                    | 1.000                                                       | -                        |
| Convenio Municipio de El Peñol                 | -                                      | -                           | -               | -                                                    | 1.046                                                       | -                        |
| Convenio Municipio de Guatapé                  | -                                      | -                           | -               | -                                                    | 3.118                                                       | -                        |
| Convenio Cornare                               | -                                      | -                           | -               | -                                                    | 1.106                                                       | -                        |
| Convenio Aguas 8 Municipio de Bolívar          | -                                      | -                           | -               | -                                                    | 16.514                                                      | -                        |
| CENS - Contrato FAER GGC-105                   | 998                                    | -                           | -               | 864                                                  | 864                                                         | -                        |
| CENS - Convenio Fundescat                      | 115                                    | -                           | -               | 133                                                  | 133                                                         | -                        |
| CENS - Convenio Ecopetrol                      | 105                                    | -                           | -               | 444                                                  | 444                                                         | -                        |
| CENS - Contrato Gobernacion                    | 901                                    | -                           | 230             | 594                                                  | 364                                                         | -                        |
| CENS - Contrato FAER GGC-313                   | 351                                    | -                           | -               | 87                                                   | 87                                                          | -                        |
| Chec- Construcción subestación Armenia         | 23                                     | -                           | -               | -                                                    | 1                                                           | -                        |
| Edeq - Parque del Café                         | 280                                    | -                           | -               | -                                                    | -                                                           | -                        |
| Edeq - Movimiento De Infraestructura Eléctrica | 57                                     | -                           | -               | -                                                    | -                                                           | -                        |
| Essa - FAER 302 de 2014                        | 5.052                                  | -                           | -               | -                                                    | -                                                           | -                        |
| Essa - FAER 301 de 2014                        | 2.070                                  | -                           | -               | -                                                    | -                                                           | -                        |
| Essa - PRONE 294 de 2014                       | 944                                    | -                           | -               | -                                                    | -                                                           | -                        |
| Essa - PRONE GGC 383                           | 340                                    | -                           | -               | -                                                    | 95                                                          | -                        |
| Essa - CAFAER 44 2015                          | 5.868                                  | -                           | -               | -                                                    | 764                                                         | -                        |
| Essa - Gobernacion-ESSA Fase V                 | -                                      | -                           | -               | -                                                    | 435                                                         | -                        |
| Essa - FAER 014                                | 146                                    | -                           | -               | -                                                    | -                                                           | -                        |
| Essa - FAER GGC 426 2015                       | 1.737                                  | -                           | -               | -                                                    | 7.607                                                       | -                        |
| Essa - Audiencias Publicas                     | 36                                     | -                           | -               | -                                                    | 32                                                          | -                        |
| Ticsa - PEMEX Tampico                          | 53.754                                 | 2.832                       | -               | -                                                    | -                                                           | -                        |
| Ticsa - Gilbane Alberichi Piedras Negras       | 4.336                                  | -                           | -               | -                                                    | -                                                           | 1.741                    |
| Ticsa - CBI Nava                               | 8.209                                  | -                           | -               | -                                                    | -                                                           | -                        |
| Ticsa - PTAR's Tuchtlán y Páso el Limón        | 4.158                                  | 459                         | -               | -                                                    | -                                                           | -                        |
| Adasa-contratos de construcción                | 502                                    | -                           | -               | -                                                    | -                                                           | -                        |
| Otros contratos de construcción Grupo          | 11.237                                 | -                           | -               | -                                                    | 145                                                         | -                        |
| <b>Total</b>                                   | <b>114.563</b>                         | <b>3.291</b>                | <b>230</b>      | <b>2.122</b>                                         | <b>43.458</b>                                               | <b>1.741</b>             |

Amounts expressed in millions of Colombian pesos -

- (1) Corresponds to contracts between group companies, eliminated for purposes of consolidating the Group's financial statements

## Note 32. Other revenues

The detail of other revenues is as follows:

| Other income                                                                    | 2017           | 2016             |
|---------------------------------------------------------------------------------|----------------|------------------|
| Recoveries <sup>(1)</sup>                                                       | 226.216        | 179.588          |
| Other ordinary income                                                           | 44.677         | 74.587           |
| Reversal loss due to impairment of accounts receivable                          | 32.432         | 6.468            |
| Commissions                                                                     | 31.284         | 43.502           |
| Indemnities <sup>(2)</sup>                                                      | 17.314         | 480.621          |
| Valuation of Investment Property                                                | 10.848         | 7.077            |
| Achievements                                                                    | 7.930          | 7.664            |
| Margin in the commercialization of goods and services                           | 2.297          | 2.303            |
| Government Grants                                                               | 928            | 4.017            |
| Sale of sheets                                                                  | 738            | 848              |
| Contracts for the management of public services                                 | 269            | -                |
| Leftovers                                                                       | 129            | 35               |
| Photocopying                                                                    | 3              | 1                |
| Reversal loss due to impairment of property, plant and equipment <sup>(3)</sup> | -              | 685.550          |
| Reversal loss due to impairment of intangible assets <sup>(3)</sup>             | -              | 25.664           |
| <b>Total</b>                                                                    | <b>375.065</b> | <b>1.517.925</b> |

Amounts expressed in millions of Colombian pesos -

- (1) Includes the refund for payment in excess of the equity tax of the taxable period of 2011 for \$127,205, in accordance with authorization for refund by the Tax Authority after carrying out the respective prior investigation to refund and having exercised the right of defense by EPM by filing the recourses of law and the extinguishment of the government channels. The requests for refund were for \$200,874, and for this reason the remaining \$73,669 are subject to discussion through the filing of complains, in exercise of the control means of nullity and reestablishment of the right.
- (2) In 2017 \$5,908 is included corresponding to the indemnification for consequential damage related to the Playas Plant and in 2016 \$472,098 is included of the indemnification for lost profits and consequential damage related to the loss that occurred in the Guatapé Plant.
- (3) 2016 includes the reversal of impairment in the Water Supply segment, detailed in Note 7 Impairment of assets

## Note 33. Costs of sales

The detail of the costs of sales is as follows:

| Costs for service provision                               | 2017             | 2016              |
|-----------------------------------------------------------|------------------|-------------------|
| Cost of public goods and services for sale <sup>(1)</sup> | 6.281.940        | 6.723.659         |
| Depreciations                                             | 723.248          | 700.213           |
| Payroll expenses                                          | 705.675          | 622.874           |
| Orders and contracts for other services                   | 591.507          | 553.687           |
| Orders and contracts of maintenance and repairs           | 329.772          | 331.763           |
| Materials and Other Operating Costs                       | 179.283          | 203.719           |
| Licenses, contributions and royalties                     | 163.022          | 133.299           |
| General                                                   | 107.695          | 105.935           |
| Fees                                                      | 102.239          | 82.508            |
| Insurance                                                 | 96.365           | 85.771            |
| Amortization                                              | 94.488           | 82.136            |
| Consumption of direct inputs <sup>(2)</sup>               | 80.364           | 479.571           |
| Taxes and rates                                           | 64.358           | 63.933            |
| Leases                                                    | 58.855           | 42.402            |
| Impairment of property, plant and equipment               | 56.619           | 819.813           |
| Public services                                           | 24.312           | 21.471            |
| Commercialized goods                                      | 20.839           | 22.813            |
| Exhaustion                                                | 7.741            | 4.961             |
| Impairment of intangible assets                           | 6.324            | 165.689           |
| Value reduction inventories                               | 1.113            | 468               |
| Loss cost in aqueduct service provision                   | 1.023            | 5.376             |
| For insurance and reinsurance <sup>(3)</sup>              | 433              | 5.074             |
| <b>Total</b>                                              | <b>9.697.215</b> | <b>11.257.135</b> |

Amounts expressed in millions of Colombian pesos -

- <sup>(1)</sup> Includes the value energy purchases in block and in the energy exchange, cost for connection, use of network lines and ducts, commercialization and distribution cost of natural gas, among other costs. The reduction in respect to the previous period is due mainly to lower costs for purchases of energy in the energy exchange for the reduction of the price.
- <sup>(2)</sup> Includes the cost of chemical products, fuel gas, energy, ACPM (petro-diesel) and fuel oil, that showed a decrease basically by the lower consumption of gas and ACPM in the year because in 2016 El Niño cycle was experienced and higher generation was required with the thermal generation plants of the Group.
- <sup>(3)</sup> It corresponds to the losses for insurance losses settled and recognized by the affiliate Maxseguros Ltd.

## Note 34. Administration expenses

The detail of administration expenses is as follows:

| Administration expenses                                 | 2017             | 2016             |
|---------------------------------------------------------|------------------|------------------|
| <b>Personnel expenses</b>                               |                  |                  |
| Wages and salaries                                      | 379.848          | 326.694          |
| Social Security Expenses                                | 100.962          | 93.863           |
| Pension expenditure                                     | 44.000           | 40.961           |
| Employee Interest Rate Benefits                         | 6.682            | 6.407            |
| Other long-term benefits                                | 6.293            | 20.342           |
| Other post-employment benefit plans other than pensions | 5.767            | 5.269            |
| Termination benefits                                    | 1.778            | 636              |
| <b>Total personnel expenses</b>                         | <b>545.330</b>   | <b>494.172</b>   |
| <b>General expenses</b>                                 |                  |                  |
| Taxes, contributions and fees <sup>(1)</sup>            | 188.608          | 318.533          |
| Provision for contingencies                             | 133.382          | 35.264           |
| Commissions, fees and services                          | 125.458          | 102.770          |
| Depreciation of property, plant and equipment           | 81.471           | 66.574           |
| Maintenance                                             | 54.376           | 57.060           |
| Amortization of intangibles                             | 41.533           | 38.517           |
| Other miscellaneous provisions                          | 37.712           | 36.143           |
| Intangibles                                             | 30.356           | 24.638           |
| Christmas lighting                                      | 20.260           | -                |
| Publicity and advertising                               | 19.783           | 18.410           |
| Other general expenses                                  | 20.247           | 91.529           |
| Studies and projects                                    | 17.350           | 13.184           |
| Vigilance and security                                  | 17.091           | 15.246           |
| Promotion and dissemination                             | 15.168           | 16.550           |
| General Insurance                                       | 12.409           | 11.615           |
| Public services                                         | 12.013           | 12.882           |
| Leases                                                  | 10.627           | 11.731           |
| Toilet, cafeteria, restaurant and laundry services      | 10.001           | 9.459            |
| Communications and transportation                       | 8.880            | 8.844            |
| Licenses and safe-conducts                              | 6.156            | 6.216            |
| Provision for onerous contracts                         | 5.836            | 5.329            |
| Printed, publications, subscriptions and affiliations   | 4.809            | 4.532            |
| Materials and supplies                                  | 4.783            | 5.249            |
| Learning contracts                                      | 4.576            | 4.151            |
| Legal expenses <sup>(2)</sup>                           | 2.917            | 49.098           |
| Event organization                                      | 2.903            | 3.302            |
| Management contracts                                    | 2.368            | 1.591            |
| Information processing                                  | 2.363            | 2.454            |
| Court costs                                             | 2.025            | 924              |
| photocopies                                             | 2.009            | 2.040            |
| Travel expenses                                         | 2.006            | 1.961            |
| Elements of cleaning, laundry and cafeteria             | 1.845            | 1.723            |
| Cultural events                                         | 1.444            | 1.986            |
| Recoveries                                              | 890              | 583              |
| Fuels and lubricants                                    | 819              | 872              |
| Industrial security                                     | 396              | 658              |
| Public Relations                                        | 382              | 545              |
| Designs and studies                                     | 329              | 102              |
| Consultation of risk centers                            | 250              | -                |
| Safety equipment                                        | 208              | 455              |
| Dismantling, retirement and rehabilitation provision    | 73               | 1.664            |
| <b>Total general expenses</b>                           | <b>906.112</b>   | <b>984.384</b>   |
| <b>Total</b>                                            | <b>1.451.442</b> | <b>1.478.556</b> |

Amounts expressed in millions of Colombian pesos -

- (1) The decrease is explained by the valorization contribution for the rectification and paving of the El Limón-Anorí road, in accordance with Resolution 2016060005142 of the Government of Antioquia, recognized in April 2016 for \$ 78,696 and the lowest tax on the Wealth for \$ 41,939 at a rate of 0.4% lower than the previous year's 1%.
- (2) In 2016, the expense corresponded to the 10% of the net proceeds of the disposal of the shares of ISAGEN S.A. E.S.P. according to Law 226 of 1995 for \$ 46,040 detailed in note 13 Other financial assets.

## Note 35. Other expenses

The detail of other expenses is as follows:

| Other expenses                                           | 2017          | 2016           |
|----------------------------------------------------------|---------------|----------------|
| Loss on asset retirement                                 | 30.990        | 32.118         |
| Contributions in non-corporate entities                  | 21.159        | 19.901         |
| Other ordinary expenses                                  | 10.102        | 10.179         |
| Arbitral awards and extrajudicial conciliation           | 8.439         | 17.192         |
| Loss on sale of assets                                   | 7.321         | 6.356          |
| Donations                                                | 618           | 532            |
| Loss on changes in the fair value of investment property | 475           | 29.206         |
| Judgments                                                | 114           | 43             |
| Taxes assumed                                            | 44            | -              |
| Other provisions for tax liabilities                     | -             | 341            |
| <b>Total</b>                                             | <b>79.262</b> | <b>115.868</b> |

*Amounts expressed in millions of Colombian pesos -*

## Note 36. Financial income and expenses

### 36.1 Financial income

The detail of financial income is as follows:

| Financial income                                         | 2017           | 2016           |
|----------------------------------------------------------|----------------|----------------|
| <b>Interest income:</b>                                  |                |                |
| Bank deposits                                            | 37.486         | 67.061         |
| Interest income from financial assets at amortized cost  | 713            | 5.201          |
| Interest of debtors and arrears                          | 139.088        | 168.073        |
| Monetary readjustment performance                        | 6              | 16             |
| Valuation benefit of financial instruments at fair value | 24.997         | 19.243         |
| Valuation of financial instruments at amortized cost     | 6.455          | 28.875         |
| Profit from rights                                       | 37.021         | 43.670         |
| Other financial income                                   | 7.136          | 9.793          |
| <b>Total financial income</b>                            | <b>252.902</b> | <b>341.932</b> |

*Amounts expressed in millions of Colombian pesos -*

### 36.2 Financial expenses

The detail of financial expenses is as follows:

| Financial expenses                                                                                         | 2017             | 2016           |
|------------------------------------------------------------------------------------------------------------|------------------|----------------|
| <b>Interest expense:</b>                                                                                   |                  |                |
| Interest on obligations under financial leasing                                                            | 35.786           | 33.596         |
| Other interest expense                                                                                     | 67.618           | 109.023        |
| <b>Total interests</b>                                                                                     | <b>103.404</b>   | <b>142.619</b> |
| Total interest expense on financial liabilities that are not measured at fair value through profit or loss | 750.007          | 686.787        |
| <b>Other financial costs:</b>                                                                              |                  |                |
| Commissions                                                                                                | 8.229            | 11.744         |
| Other financial expenses                                                                                   | 160.637          | 148.015        |
| <b>Total financial expenses</b>                                                                            | <b>1.022.277</b> | <b>989.165</b> |

Amounts expressed in millions of Colombian pesos -

## Note 37. Exchange difference, net

The effect of transactions in foreign currency is the following:

| Difference, net                                 | 2017             | 2016             |
|-------------------------------------------------|------------------|------------------|
| <b>Income for difference in exchange</b>        |                  |                  |
| <u>Own position</u>                             |                  |                  |
| For goods and services and others               | 4.394            | 43.562           |
| By liquidity                                    | 36.954           | 1.383            |
| Accounts receivable                             | 74.451           | 65.949           |
| Other adjustments for difference in exchange    | 19.508           | 40.066           |
| <u>Financial services</u>                       |                  |                  |
| Gross income                                    | 129.294          | 581.686          |
| <b>Total income for difference in exchange</b>  | <b>264.601</b>   | <b>732.646</b>   |
| <b>Gasto por diferencia en cambio</b>           |                  |                  |
| <u>Posición propia</u>                          |                  |                  |
| For goods and services and others               | (4.610)          | (10.952)         |
| By liquidity                                    | (6.135)          | (30.399)         |
| Accounts receivable                             | (41.747)         | (163.587)        |
| Other adjustments for difference in exchange    | (10.516)         | (29.689)         |
| <u>Financial services</u>                       |                  |                  |
| Gross expenditure                               | (42.863)         | (252.120)        |
| <b>Total expense for difference in exchange</b> | <b>(105.871)</b> | <b>(486.747)</b> |
| <b>Difference, net</b>                          | <b>158.730</b>   | <b>245.899</b>   |

Amounts expressed in millions of dollars -

The rates used for the conversion of foreign currency in the consolidated financial statements are:

| Currency             | Currency type | Direct USD conversion at 31, december |        | Closing exchange rate as of december 31 |          | Average exchange rate as of december 31 |          |
|----------------------|---------------|---------------------------------------|--------|-----------------------------------------|----------|-----------------------------------------|----------|
|                      |               | 2017                                  | 2016   | 2017                                    | 2016     | 2017                                    | 2016     |
| United States dollar | USD           | -                                     | -      | 2.984,00                                | 3.000,71 | 2.991,76                                | 3.009,86 |
| Quetzal              | GTQ           | 7,34                                  | 7,52   | 406,27                                  | 398,84   | 407,55                                  | 400,97   |
| Mexican peso         | MXP           | 19,57                                 | 20,60  | 152,51                                  | 145,65   | 155,87                                  | 146,66   |
| Chilean peso         | CLP           | 614,98                                | 669,78 | 4,85                                    | 4,48     | 4,71                                    | 4,51     |

## Note 38. Effect by interest in equity investments

The effect by participation in equity investments is as follows:

| Interest in equity investment                                      | 2017          | 2016          |
|--------------------------------------------------------------------|---------------|---------------|
| Dividends and shares <sup>(1)</sup>                                | 49.764        | 35.107        |
| Result due to business combination - see note 9                    | 32.669        | -             |
| Result in equity investments sale, net <sup>(2)</sup>              | 32            | (62)          |
| <b>Total efecto por participación en inversiones patrimoniales</b> | <b>82.465</b> | <b>35.045</b> |

*Amounts in millions of Colombian pesos -*

<sup>(1)</sup> Includes investment dividends classified as financial instruments (see note 13. Other financial assets)

<sup>(2)</sup> 2017 includes mainly income for \$ 11 corresponding to the investment' sale classified in financial instruments owned by the subsidiary Tecnología Intercontinental S.A. of C.V. TICSА in the company Aquasol Pachuca S.A. of C.V.

## Note 39. Income Tax

### 39.1 Tax provisions

Tax provisions applicable and in effect, establish the following:

- The nominal rate of the income tax is 34% and a surtax of 6% for the parent and the affiliates of Colombia.
- For the affiliates of Guatemala, the tax is determined by the Regime on Profits from Profitable Activities consisting in applying the rate on the profit, since 2015 the rate is 25%; or by the Optional Simplified Regime on Profits from Profitable Activities, consisting in applying the tax rate on the monthly taxed income. From the period of 2014 on, the tax rate is of 5% on the first Q 30,000 and of 7% on the excess; in addition, the tax legislation contemplates a Capital Returns Regime that establishes a taxation rate of 30% and for the Chile affiliates the nominal rate is 25.5% and 27% for 2018 and following.
- Domiciliary public utilities in Colombia are excluded from determining the income tax by the system or presumptive income calculated based on the net tax equity of the immediately preceding year.
- During 2016 Law 1819/2015 was enacted in Colombia modifying the tax rates in effect, which generated a great impact on the determination of the deferred tax of the parent and its national affiliates.
- The Parent of the EPM Group uses the tax deduction called "Special deduction for investment in productive fixed assets", equivalent to 40% of the investments made during the tax year. This

benefit continues for the Parent Company as a result of the public stability agreement signed with the National Government in 2008.

### 39.2 Conciliation of effective rate

The reconciliation between the applicable tax rate and the effective rate and the composition of the income tax expense for periods 2017 and 2016 is the following:

| Income and complementary tax                                | 2017             | %          | 2016             | %          |
|-------------------------------------------------------------|------------------|------------|------------------|------------|
| <b>Result before taxes</b>                                  | <b>3.076.215</b> |            | <b>2.464.506</b> |            |
| <b>Theoretical tax</b>                                      |                  |            |                  |            |
| <b>Plus items that increase the income</b>                  | <b>1.000.612</b> | <b>33%</b> | <b>1.627.137</b> | <b>66%</b> |
| Other non-deductible costs and expenses                     | 461.931          | 15%        | 1.031.596        | 42%        |
| Dividends effectively received from controlled companies    | 343.806          | 11%        | 427.190          | 17%        |
| Non-deductible provisions                                   | 161.264          | 5%         | 84.039           | 3%         |
| Wealth tax                                                  | 33.611           | 1%         | 84.312           | 3%         |
| <b>Less items that reduce the income</b>                    | <b>2.466.612</b> | <b>80%</b> | <b>1.836.954</b> | <b>75%</b> |
| Deduction of real productive fixed assets                   | 792.906          | 26%        | 725.851          | 29%        |
| Other not taxed                                             | 687.866          | 22%        | 223.109          | 9%         |
| Excess of tax over accounting depreciation and amortization | 422.958          | 14%        | 429.516          | 17%        |
| Dividends not taxed                                         | 208.389          | 7%         | 330.842          | 13%        |
| Differences IFRS vs. GAAP                                   | 157.902          | 5%         | (32.764)         | -1%        |
| Recoveries not taxed                                        | 139.883          | 5%         | 80.520           | 3%         |
| Tax effects of companies abroad                             | 40.374           | 1%         | 71.294           | 3%         |
| Payment against provisions                                  | 16.334           | 1%         | 8.586            | 0%         |
| <b>Net ordinary income of the period</b>                    | <b>1.610.215</b> | <b>52%</b> | <b>2.254.689</b> | <b>91%</b> |
| Less Exempt Income                                          | 64.146           | 2%         | 51.502           | 2%         |
| Less offset of losses, excesses of presumptive income       | 21.694           | 1%         | 28.472           | 1%         |
| Other                                                       | 87               | 0%         | -                | 0%         |
| <b>Net taxable income</b>                                   | <b>1.524.462</b> | <b>50%</b> | <b>2.174.715</b> | <b>88%</b> |
| <b>Income tax rate (average)</b>                            | <b>38,79%</b>    |            | <b>27,08%</b>    |            |
| CREE tax rate                                               | 0%               |            | 9%               |            |
| CREE surtax rate                                            | 0%               |            | 6%               |            |
| Capital gains tax rate                                      | 10%              |            | 10%              |            |
| <b>Income tax</b>                                           | <b>591.374</b>   | <b>19%</b> | <b>418.429</b>   | <b>17%</b> |
| CREE <sup>1</sup> tax                                       | -                | 0%         | 167.370          | 7%         |
| CREE surtax                                                 | -                | 0%         | 121.620          | 5%         |
| Capital gains tax                                           | 8                | 0%         | 2.587            | 0%         |
| Less tax discounts                                          | 124.836          | 4%         | 67.523           | 3%         |
| Other                                                       | 6.597            | 0%         | 32.576           | 1%         |
| <b>Current tax and CREE</b>                                 | <b>473.143</b>   | <b>15%</b> | <b>675.059</b>   | <b>27%</b> |
| <b>Detail of current and deferred expense</b>               |                  |            |                  |            |
| Current tax and CREE                                        | 473.143          | 15%        | 675.059          | 27%        |
| Deferred tax                                                | 312.817          | 10%        | (25.930)         | -1%        |
| <b>Income tax</b>                                           | <b>785.960</b>   | <b>26%</b> | <b>649.129</b>   | <b>26%</b> |

Amounts expressed in millions of Colombian pesos -

(1) It is unified with the income tax by provision of the Law 1819 of 2016

### 39.3 Income tax recognized in profit or loss



The most significant components of the income tax expense as of the report date are:

| Income tax                                                                                       | 2017           | 2016            |
|--------------------------------------------------------------------------------------------------|----------------|-----------------|
| <b>Current income tax</b>                                                                        |                |                 |
| Expenditure on current income tax                                                                | 465.463        | 652.138         |
| Adjustments recognized in the current period related to current income tax from previous periods | 7.642          | 23.025          |
| Tax benefits of tax losses, tax credits or temporary differences used in the period              | -              | (104)           |
| Net expenditure for current income tax, PPUA, Reserves and rectifications                        | 38             | -               |
| <b>Total impuesto sobre la renta corriente</b>                                                   | <b>473.143</b> | <b>675.059</b>  |
| <b>Impuesto diferido</b>                                                                         |                |                 |
| Net expense due to deferred tax related with the origin and reversal of temporary differences    | 348.826        | 122.224         |
| Expense (income) net due to deferred tax related with changes in tax rates or laws <sup>1</sup>  | 4.665          | (108.850)       |
| Tax benefits of tax losses, tax credits or temporary differences used in the period <sup>2</sup> | (40.674)       | (5.674)         |
| Mergers - business reorganization                                                                | -              | (33.631)        |
| <b>Total deferred tax</b>                                                                        | <b>312.817</b> | <b>(25.930)</b> |
| <b>Income tax</b>                                                                                | <b>785.960</b> | <b>649.129</b>  |

Amounts expressed in millions of Colombian pesos -

- (1) The expense (income) for deferred tax related to the changes in the tax rates for 2016 was originated by the Amendment that incorporated Law 1819 of December 29, 2016, rates applicable from January 2017 and related with 2017 period correspond to variations in the rate of deferred tax determination in Mexican subsidiaries. The rates used to determine the deferred tax are:

40% for 2017 (34% rent and 6% surcharge), which varied from the previous year's 42%, for the short-term items that are reversed during 2017. For generation, a 39% rate is used The legal stability contract.

37% for 2018 (33% rent and 4% surcharge), which varied from the previous year's 43%, for the long-term items that revert during 2018.

33% for 2019, which varied from 34% in the previous year, this for the long-term items that revert during 2019 and following.

For property, plant and equipment, the current rate was used considering the year in which the difference is expected to be reversed, based on the remaining useful life of each asset.

For the case of assets whose profit is expected to be realized for an occasional gain, a rate of 10% is used.

27% for the temporary differences generated in the Chilean subsidiaries, 30% for the Panama subsidiaries and 25% for the other subsidiaries in Central America.

The rates used to determine the deferred tax for the subsidiaries in Colombia are:

| Year              | 2017       | 2018       | 2019       | 2020       | 2021       |
|-------------------|------------|------------|------------|------------|------------|
| Rent              | 34%        | 33%        | 33%        | 33%        | 33%        |
| About rate        | 6%         | 4%         | -          | -          | -          |
| <b>Total rate</b> | <b>40%</b> | <b>37%</b> | <b>33%</b> | <b>33%</b> | <b>33%</b> |

The Energy Generation segment of EPM has a 33% complementary and income tax rate, stabilized for 20 years under the legal stability contract EJ-04 of March 31, 2008, modified by ANY OTHER EJ -01 June 4, 2010.

- (2) The expense (income) for deferred tax related to the tax benefits related to fiscal losses, tax credits or deductible temporary differences used during the period in Mexican and Chilean subsidiaries.

### 39.4 Temporary differences that do not affect the deferred tax

Deductible temporary differences and tax losses and credits not used, for which the Group has not recognized assets for deferred taxes, are detailed below:

| Concept                                                         | 2017         | 2016         |
|-----------------------------------------------------------------|--------------|--------------|
| More than five years                                            | 931          | -            |
| Without time limit                                              | 5.559        | 4.820        |
| <b>Tax losses not used</b>                                      | <b>6.490</b> | <b>4.820</b> |
| Without time limit                                              | 35           | -            |
| <b>Unused tax credits</b>                                       | <b>35</b>    | -            |
| At more than one year and up to five years                      | 8            | -            |
| <b>Excess of presumptive income over ordinary liquid income</b> | <b>8</b>     | -            |
| <b>Deductible temporary differences</b>                         |              |              |
| <b>Total <sup>1</sup></b>                                       | <b>6.533</b> | <b>4.820</b> |

Amounts expressed in millions of Colombian pesos -

The deductible temporary differences and the losses, tax credits and excesses of presumptive income on ordinary liquid income not used, correspond to fiscal losses not used by Aguas de Malambo S.A. E.S.P. for \$ 6,486 million (2016 \$ 4,820), EV Alianza Energética S.A. for \$ 4 (2016 \$ 0), tax credits not used by Aguas de Malambo S.A. E.S.P. for \$ 35 million (2016 \$ 0) and excess of presumptive income on ordinary liquid income not used by EV Alianza Energética S.A. for \$ 8 (2016 \$ 0).

The value of the asset or liability of current income tax is the following.

| Concept                                          | 2017             | 2016             |
|--------------------------------------------------|------------------|------------------|
| <b>Asset or liability for current income tax</b> |                  |                  |
| <b>Total income tax liability</b>                | <b>(148.088)</b> | <b>(132.305)</b> |
| Income tax                                       | (147.903)        | (80.054)         |
| CREE tax and surtax                              | (185)            | (52.251)         |
| <b>Total income tax asset</b>                    | <b>415.669</b>   | <b>139.582</b>   |
| Balances in favor for income tax                 | 415.669          | 139.582          |
| <b>Total income tax asset</b>                    | <b>267.581</b>   | <b>7.277</b>     |

Amounts expressed in millions of Colombian pesos -

### 39.5 Income tax recognized in other comprehensive income

The detail of the tax effect corresponding to each component of “other comprehensive income” of the Consolidated Statement of comprehensive income is the following:

| Other statement of comprehensive income accumulated                          | 2017             |                  |                  | 2016             |                 |                  |
|------------------------------------------------------------------------------|------------------|------------------|------------------|------------------|-----------------|------------------|
|                                                                              | Gross            | Tax effect       | Net              | Gross            | Tax effect      | Net              |
| Reclassification of properties, plant and equipment to investment properties | 13.439           | (1.360)          | 12.079           | 13.439           | (1.360)         | 12.079           |
| New measurements of defined benefit plans                                    | (43.995)         | 14.437           | (29.557)         | (13.770)         | (1.179)         | (14.949)         |
| Equity investments measured at fair value through equity                     | 2.309.259        | (135.913)        | 2.173.346        | 1.834.037        | (88.162)        | 1.745.875        |
| Participation in other comprehensive income of associates and joint ventures | (2.582)          | -                | (2.582)          | (925)            | 1.113           | 188              |
| Cash flow hedges                                                             | (24.762)         | 18.974           | (5.788)          | (19.374)         | 11.112          | (8.262)          |
| Conversion of business financial statements abroad                           | 716.675          | -                | 716.675          | 705.285          | -               | 705.285          |
| <b>Total</b>                                                                 | <b>2.968.033</b> | <b>(103.861)</b> | <b>2.864.172</b> | <b>2.518.692</b> | <b>(78.476)</b> | <b>2.440.216</b> |

Amounts expressed in millions of Colombian pesos -

### 39.6 Deferred Tax

The detail of the deferred tax is:

| Deferred tax                  | 2017               | 2016               |
|-------------------------------|--------------------|--------------------|
| Deferred tax assets           | 225.317            | 188.293            |
| Deferred tax liabilities      | (2.854.341)        | (2.488.658)        |
| <b>Total deferred tax net</b> | <b>(2.629.024)</b> | <b>(2.300.365)</b> |

Amounts expressed in millions of Colombian pesos -

### 39.6.1 Deferred tax assets

| Deferred tax assets                  | Initial balance | Others         | Business combination | Disposals <sup>1</sup> | Net changes included in profit or loss | Changes included in OCI | Recognized directly to equity | Final balance  |
|--------------------------------------|-----------------|----------------|----------------------|------------------------|----------------------------------------|-------------------------|-------------------------------|----------------|
| <b>Assets</b>                        |                 |                |                      |                        |                                        |                         |                               |                |
| Property, plant and equipment        | 7.024           | 448.364        | -                    | -                      | 61.399                                 | -                       | -                             | 516.787        |
| Intangibles                          | 7.314           | 16.136         | -                    | -                      | (9)                                    | -                       | -                             | 23.441         |
| Investment properties                | -               | -              | -                    | -                      | 2.594                                  | -                       | -                             | 2.594          |
| Investment and financial instruments | 13.845          | 100.276        | -                    | -                      | (64.329)                               | (752)                   | -                             | 49.040         |
| Accounts receivable                  | 17.382          | 268.718        | -                    | -                      | (39.366)                               | -                       | -                             | 246.734        |
| Cash and cash equivalents            | 726             | (726)          | -                    | -                      | 168                                    | -                       | -                             | 168            |
| Inventories                          | -               | 6.388          | -                    | -                      | (3.243)                                | -                       | -                             | 3.145          |
| Other assets                         | 5.080           | 32.780         | -                    | 7                      | 29.690                                 | -                       | -                             | 67.557         |
| <b>Liabilities</b>                   |                 |                |                      |                        |                                        |                         |                               |                |
| Credits and loans                    | 1.058           | 315.234        | -                    | (2.075)                | (160.788)                              | -                       | -                             | 153.429        |
| Accounts payable                     | 10.858          | 35.744         | -                    | -                      | 31.364                                 | -                       | -                             | 77.966         |
| Employees benefits                   | 5.847           | 423.715        | -                    | -                      | 92.029                                 | 3.396                   | 9.676                         | 534.663        |
| Derivatives                          | -               | 7.223          | -                    | -                      | 4.516                                  | 13.246                  | -                             | 24.985         |
| Provisions                           | 17.017          | 226.767        | -                    | (4)                    | (40.463)                               | -                       | 446                           | 203.763        |
| Other liabilities                    | 1.649           | 243.808        | -                    | -                      | 132.910                                | 218                     | -                             | 378.585        |
| Losses and unused tax credits        | 100.460         | (76.395)       | -                    | (3.674)                | (20.391)                               | -                       | -                             | -              |
| Offsetting an asset and a liability  | 33              | (2.057.539)    | -                    | -                      | (34)                                   | -                       | -                             | (2.057.540)    |
| <b>Deferred tax asset</b>            | <b>188.293</b>  | <b>(9.507)</b> | <b>-</b>             | <b>(5.746)</b>         | <b>26.047</b>                          | <b>16.108</b>           | <b>10.122</b>                 | <b>225.317</b> |

Amounts expressed in millions of Colombian pesos -

### 39.6.2 Deferred tax liabilities

| Deferred tax liabilities             | Initial balance    | Differences in conversion | Business combination | Disposals <sup>1</sup> | Net changes included in profit or loss | Changes included in OCI | Recognized directly to equity | Final balance      |
|--------------------------------------|--------------------|---------------------------|----------------------|------------------------|----------------------------------------|-------------------------|-------------------------------|--------------------|
| <b>Assets</b>                        |                    |                           |                      |                        |                                        |                         |                               |                    |
| Property, plant and equipment        | (2.748.954)        | (344.675)                 | (14)                 | (13)                   | (224.479)                              | -                       | -                             | (3.318.135)        |
| Intangibles                          | (26.010)           | (32.451)                  | (50)                 | -                      | (528)                                  | -                       | -                             | (59.039)           |
| Investment properties                | -                  | (200)                     | -                    | -                      | (7.292)                                | -                       | -                             | (7.492)            |
| Investment and financial instruments | 82.807             | (99.429)                  | -                    | -                      | (97.324)                               | (44.590)                | -                             | (158.536)          |
| Accounts receivable                  | 62.456             | (262.444)                 | (785)                | -                      | 38.173                                 | -                       | -                             | (162.600)          |
| Cash and cash equivalents            | (3)                | (9.495)                   | -                    | -                      | 9.331                                  | -                       | -                             | (167)              |
| Inventories                          | -                  | (5.938)                   | -                    | -                      | 2.563                                  | -                       | -                             | (3.375)            |
| Other assets                         | 6.493              | (13.685)                  | -                    | -                      | (20.706)                               | -                       | -                             | (27.898)           |
| <b>Liabilities</b>                   |                    |                           |                      |                        |                                        |                         |                               |                    |
| Credits and loans                    | 130.515            | (310.753)                 | -                    | -                      | 118.517                                | -                       | -                             | (61.721)           |
| Accounts payable                     | (146.035)          | 21.925                    | -                    | -                      | (26.404)                               | -                       | -                             | (150.514)          |
| Employees benefits                   | 146.674            | (549.879)                 | -                    | -                      | (42.545)                               | 3.593                   | -                             | (442.157)          |
| Derivatives                          | 11.592             | (14.328)                  | -                    | -                      | 1.091                                  | 57                      | -                             | (1.588)            |
| Provisions                           | 31.814             | (104.427)                 | -                    | -                      | 60.081                                 | -                       | -                             | (12.532)           |
| Other liabilities                    | (53.680)           | (331.917)                 | (405)                | -                      | (120.125)                              | -                       | -                             | (506.127)          |
| Losses and unused tax credits        | 13.673             | 9.785                     | -                    | -                      | (23.458)                               | -                       | -                             | -                  |
| Offsetting an asset and a liability  | -                  | 2.057.540                 | -                    | -                      | -                                      | -                       | -                             | 2.057.540          |
| <b>Deferred tax liability</b>        | <b>(2.488.658)</b> | <b>9.629</b>              | <b>(1.254)</b>       | <b>(13)</b>            | <b>(333.105)</b>                       | <b>(40.940)</b>         | <b>-</b>                      | <b>(2.854.341)</b> |
| <b>Total deferred tax liability</b>  | <b>(2.300.365)</b> | <b>122</b>                | <b>(1.254)</b>       | <b>(5.759)</b>         | <b>(307.058)</b>                       | <b>(24.832)</b>         | <b>10.122</b>                 | <b>(2.629.024)</b> |

Amounts expressed in millions of Colombian pesos -

(1) Represents the effect on the deferred tax by reclassification in the affiliate EPM Mexico for entries that according to their regulations must be recorded in the current income.

### 39.6.3 Temporary differences

The most significant items on which there were temporary differences are the following:

In assets, the higher impact arises by the temporary differences in property, plant and equipment by virtue of purchase and sale operations of assets between companies of the EPM Group, which implies the generation of unrealized profits and by the valuation at amortized cost of the long term accounts receivable. In accounts receivable it corresponds to the receivables provision due to the difference in the

cleansing of the receivables provision under the tax regulation and the impairment of receivables under IFRS. It is important to underline that in 2016 an adjustment was made to the impairment of the IFRS receivables using the expected credit loss approach, the calculation with this methodology accumulated at January 1, 2016 was recognized affecting the account of retained profits; in the same manner was recognized the deferred tax associated to this item. Likewise, temporary differences occur by the effect of the valuation at amortized cost of the short term loans between related parties.

Regarding liabilities, the items that impact the calculation of the deferred tax are for the most part, the liquidation of the provision corresponding to quotas, pension bonds, actuarial calculation in pensions and the pension commutation of EADE, the amortization of actuarial calculation in pensions of Emvarias and, Credits and loans for the amortized cost valuation of bonds, securities issued, loans and short-term loans; also includes the one that is generated by the temporary differences in the valuation at amortized cost of the credits and long-term loans. On the other hand, the temporary differences of liabilities for long-term employee benefits such as retirement pensions, installments of pension bonus bonds and actuarial calculation of retroactive severance and interest on severance payments.

In the items that do not have future tax consequences, such as the case of tax liabilities and financial returns generated by plan assets, of EPM, CHEC and Emvarias, since they are exempt income, no deferred tax was generated.

Temporary differences on which no deferred tax was generated were, inter alia, investments in subsidiaries, associates and joint ventures, in accordance with paragraph 39 of IAS 12; As well as in items that do not have future tax consequences, such as tax liabilities and financial income generated in the plan assets, since these are EPM, CHEC and Embryos because they correspond to exempt income.

#### **New regulations for subsidiaries in Colombia**

##### **Regulation with tax impact issued in 2017**

Among the Decrees issued by the National Government during 2017, it is convenient to refer to the following because of their impact:

- Decree 1650 of 2017, which purpose is to regulate the way to access tax benefits related to companies incorporated in the most affected zones by the Armed Conflict - ZOMAC; in this respect it provides who can access these benefits, what type of benefits are applicable in the income and complementary tax and the requirement for incorporation of the company, initiation of activities, amount of investment and generation of employment.
- Decree 1915 of 2017 determines the manner how part of the payment of the income and complementary tax can be made, through the execution of work in the ZOMACs; this benefit permits the taxpayer to make the direct investment for up to fifty percent (50%) of the tax payable determined in the income and complementary tax return, for the execution of projects made viable and that are a priority and have social transcendence in the different municipalities defined as ZOMAC, thus extinguishing in this manner part of the tax obligation payable.
- Decree 1998 of 2017, regulates the obligation for the taxpayer to make during each taxable period the tax reconciliation, as control mechanism for the recording of differences that arise between the application of the technical regulatory accounting frameworks and the provisions of the Tax Code, based on two elements: the detail control and the tax reconciliation report; its purpose is that the taxpayers, based on the economic events recorded based on the accounting technique, will be able to arrive at the determination of taxation basis, maintaining the traceability of the information and will serve as support for the explanation of the differences.

## Note 40. Information to be disclosed about related parties

EPM, the parent company of the EPM Group, is an industrial and commercial enterprise of the State, decentralized of the municipal order, whose only owner is the Municipality of Medellín. It's capital is not divided into shares.

As related parties of the EPM Group are considered the subsidiaries, associates, joint ventures, including the subsidiaries of the associates and joint ventures, key management personnel, as well as the entities on which the key management personnel may exercise control or joint control and the post-employment benefit plans for benefit of the employees.

Balances and transactions between related parties of the EPM Group have been eliminated in the process of consolidation and are not disclosed in this note. Following is presented the total value of the transactions carried out by the Group with its associates and other related parties during the corresponding period:

| Transactions and balances with related parties                        | Revenues <sup>(1)</sup> | Costs/<br>Expenses <sup>(2)</sup> | Amounts<br>receivable <sup>(3)</sup> | Amounts<br>payable <sup>(4)</sup> | Guarantees<br>and<br>guarantees<br>received <sup>(5)</sup> |
|-----------------------------------------------------------------------|-------------------------|-----------------------------------|--------------------------------------|-----------------------------------|------------------------------------------------------------|
| <b>Associates:</b>                                                    |                         |                                   |                                      |                                   |                                                            |
| 2017                                                                  | 111.811                 | 189.470                           | 42.746                               | 35.885                            | -                                                          |
| 2016                                                                  | 160.422                 | 380.936                           | 47.851                               | 71.439                            | -                                                          |
| <b>Key management personnel of the company or its parent company:</b> |                         |                                   |                                      |                                   |                                                            |
| 2017                                                                  | -                       | 20.963                            | 2.444                                | 3.814                             | 704                                                        |
| 2016                                                                  | -                       | 16.010                            | 958                                  | 675                               | 410                                                        |
| <b>Other related parties:</b>                                         |                         |                                   |                                      |                                   |                                                            |
| 2017                                                                  | 526.772                 | 1.146.786                         | 688.160                              | 798.142                           | -                                                          |
| 2016                                                                  | 110.653                 | 252.122                           | 264.885                              | 408.671                           | -                                                          |

Amounts expressed in millions of Colombian pesos -

- (1) The income generated from transactions with associates corresponds to the sale of services related to information technologies and communications, information services and complementary activities related and/or associated thereto. The income generated with other related parties corresponds mainly to the sale of energy, rendering of public and financial services.
- (2) Corresponds to costs and expenses originated in transactions with purchase of energy, acquisition of goods and services, included the services related to the communications and complementary activities, with associates and other related parties.
- (3) The Group maintains accounts receivables with its related parties derived from the sale of energy, rendering of public services, sales of services associated to information technologies and communications, information services among others. The EPM Group makes the rating of its receivables under criteria that permit to prioritize the management of their recovery through its own divisions or collection agencies. The collection applies according to the billing cycle in respect to domiciliary public utilities.
- (4) The payment policy, in most cases, is of 30 days following the filing of the invoice.
- (5) The guarantees and endorsements correspond to mortgage guarantees on housing loans granted to key management personnel.

The transactions between the EPM Group and its related parties were made in conditions equivalent to those that exist in transactions between independent parties, as refers to their object and conditions.

### Transactions and balances with related government entities

The total of financial surpluses paid to the Municipality of Medellin to December 2017 was \$1,309,136 (2016 \$816,521).

#### Remuneration to the Board of Directors and key personnel of the Group:

The remuneration of the members of the Board of Directors and of the key personnel of the management of the Group is the following:

| Concept                                             | 2017          | 2016          |
|-----------------------------------------------------|---------------|---------------|
| Salaries and other short-term benefits to employees | 30.353        | 22.132        |
| Pensions and other post-employment benefits         | 478           | 334           |
| Other long-term benefits to employees               | 725           | 1.623         |
| Contract termination benefits                       | -             | 137           |
| <b>Remuneration to key management personnel</b>     | <b>31.556</b> | <b>24.226</b> |

*Amounts expressed in millions of Colombian pesos -*

The amounts disclosed are those recognized as cost or expense during the period report for compensation of key personnel of EPM Group.

## Note 41. Capital Management

The capital of the EPM Group includes indebtedness through the capital market, commercial bank, development banks, central bank and multilateral bank, at a national and international level.

EPM Group manages its capital in order to plan, manage and assess the obtaining of financial resources in the national and international financial markets, for strategic investments, investment projects, through the different options that optimize the cost, that guarantee the maintenance of adequate financial indicators and adequate credit rating and minimize the financial risk. For the above, the following capital management policies and processes have been defined.

**Financial management:** Financial management corresponds to the performance of all long term credit operations, in order to guarantee the timely availability of the resources required for the normal operation of the company and to materialize the investment and growth decisions, optimizing the financing costs.

The Group has not made any changes to its objectives, policies and capital management processes during the period ended at the cut-off date, nor has it been subject to external capital requirements

In order to face the changes in the economic conditions, the Group implements proactive management mechanisms for their financing, enabling up to where it is viable different financing alternatives, in such a way that at the time that the performance of any long term credit operation is required, there will be access to the source that has availability at each time of competitive market conditions and as timely as necessary.

Following are presented the values that the EPM Group manages as capital:

| Quality Management                | 2017              | 2016              |
|-----------------------------------|-------------------|-------------------|
| <b>Bonds and loans</b>            |                   |                   |
| Commercial banking loans          | 5.056.601         | 5.161.839         |
| Multilateral banking loans        | 1.668.268         | 1.664.555         |
| Development banking loans         | 919.922           | 963.250           |
| Bonds and securities issued       | 1.073.732         | 923.093           |
| Other bonds and securities issued | 8.240.200         | 6.135.271         |
| <b>Total debt</b>                 | <b>16.958.723</b> | <b>14.848.008</b> |
| <b>Total capital</b>              | <b>16.958.723</b> | <b>14.848.008</b> |

*Amounts expressed in millions of Colombian pesos-*

## Note 42. Financial risk management objectives and policies

The Group is exposed to the financial risk, which is defined as the possibility of occurrence of an event that affects negatively the financial results, among which is the market risk, liquidity risk, credit risk and operating risk.

The market risk refers to the changes or volatility of market variables that can generate economic losses. The market variables refer to exchange rates, interest rates, securities, commodities, among others; and their changes may impact, for example, the financial statements, cash flow, financial indicators, contracts, project viability and investments.

The credit risk refers to the possible default of payment obligations by third parties derived from contracts or financial transactions performed.

The liquidity risk is the scarcity of funds and inability to obtain the resources at the time they are required to cover the contractual obligation and carry out investment strategies. The scarcity of funds leads to the need to sell assets or contract financing operations in unfavorable market conditions.

Finally, the operating risk, from a financial standpoint, is defined as deficiencies or failures in the processes, technology, infrastructure, human resources or occurrence of unforeseen external events.

The objective of the Integral Risk Management Office is to lead the definition and implementation of the strategy for an integral risk management, in order to achieve an adequate protection and assurance of the goods, resources and interest of the EPM Group.

The Group has as policy to carry out the management of the risks that have an incidence on its activity and environment, by adopting the best practices and international standards of Integral Risk Management (IRM), as a way to facilitate the achievement of the purpose, strategy, objective and business goals, both of statutory and legal origin. It has an information system that facilitates the integral management of risks, guarantees confidentiality, availability and reliability of information and permits to make analysis and monitoring of risks and improvement plans. It has implemented an internal risk management system and has in place a methodology for the identification, analysis, evaluation, control and monitoring of risks, among which are those associated to money laundering and financing of terrorism, that permits to reduce vulnerability, and propose and implement efficient mechanism for the proper performance of business, processes, projects and contracts. As valuation criteria the Group has valuation tables of the consequences of the materialization of risks and of the probability tables, which are applicable in the different management levels defined in the methodological guide for integral risk management.

The integral risk management monitoring and review activity is aligned with the process of follow up of the management established in the Group, in order to propose and implement improvement actions. The monitoring and review scheme established assesses, among others, the following aspects:

- The implementation strategy of the integral risk management.

- The changes in the internal and external context that imply making adjustments in the treatment of risks identified or those that generate new risks.
- The variation of the risks in terms of frequency, probability and consequence.
- The valuation criteria of probability and consequence of risks.
- The establishment and efficacy of treatment plans.

The Group manages the financial risks associated to the different management levels, for which it identifies the risks within market, liquidity and credit congregators that are classified in the category of financial risks and quantifies their impact and implements strategy for their mitigation.

#### 42.1. Market Risk

Market Risk is the risk that the fair value of the future cash flows of a financial instrument may fluctuate due to changes in market prices. The Group has identified that financial instruments affected by market risk include:

- Cash and cash equivalents (Fixed Income Securities and Fiduciary Charges).
- Investments at fair value through profit or loss.
- Investments measured at fair value through equity.

The sensitivity analyzes correspond to the financial situation as of December 31, 2017 and apply for the following concepts:

- Cash and cash equivalents (Fixed Income Securities and Fiduciary Charges).
- Investments at fair value through profit or loss.

The methodology used for the measurement of market risk is the Value at Risk, consisting of the quantification of the maximum loss that the portfolio could present in a month with a confidence level of 95%. For the quantification of the VaR, the methodology defined by the Financial Superintendency is used in the Basic Financial Accounting Circular (CE100 of 1995)

#### 42.2. Interest Rate Risk

Interest Rate Risk is the risk that the fair value or future cash flows of a financial instrument may fluctuate as a result of changes in market interest rates. The Group has identified that financial instruments affected by interest rate risk include:

- Cash and cash equivalents
- Investments at fair value through profit or loss.
- Financial liabilities measured at amortized cost. Credits and loans
- Financial liabilities measured at fair value with changes in other comprehensive income-derivative instruments.

The concentration of interest rate risk appears when there are large individual exposures and when there are significant exposures to counterparties whose probability of default is determined by factors such as the economic sector, currency and credit ratings. Interest rate risk management seeks to preserve capital and maintain or increase profitability. The EPM Group has defined policies on risk in interest rates, through the identification of risks, the determination of the position of rates and the simulation of possible hedging strategies. This supports the decision making, which are oriented to maintain the position or cover it, and subsequently an analysis of the results of the strategies executed is performed.



### Analysis of sensitivity to interest rates

The following table indicates the sensitivity to a possible reasonable change in the interest rates of financial instruments exposed to this risk, without considering the effect of hedge accounting. Keeping all other variables constant, the pre-tax profit / loss and EPM Group's equity would be affected by changes in variable interest rates as follows:

|                                                                                                | Increase/decrease in basic points | Financial effect     |               |
|------------------------------------------------------------------------------------------------|-----------------------------------|----------------------|---------------|
|                                                                                                |                                   | In profit before tax | In the equity |
| <b>2017</b>                                                                                    |                                   |                      |               |
| <b>Financial assets measured at fair value through profit or loss</b>                          |                                   |                      |               |
| Investments at fair value through profit or loss                                               | 100                               | 2.654                | 2.123         |
|                                                                                                | (100)                             | (2.643)              | (2.115)       |
| <b>Financial liabilities measured at amortized cost</b>                                        |                                   |                      |               |
| Credits and loans                                                                              | 100                               | (137.213)            | (109.770)     |
|                                                                                                | (100)                             | 137.213              | 109.770       |
| <b>Financial liabilities measured at fair value with changes in other comprehensive income</b> |                                   |                      |               |
| Derivative instruments                                                                         | 100                               | 303                  | (11.956)      |
|                                                                                                | (100)                             | (303)                | 12.576        |
| <b>2016</b>                                                                                    |                                   |                      |               |
| <b>Financial assets measured at fair value through profit or loss</b>                          |                                   |                      |               |
| Investments at fair value through profit or loss                                               | 100                               | 37.421               | 29.937        |
|                                                                                                | (100)                             | (33.904)             | (27.123)      |
| <b>Financial liabilities measured at amortized cost</b>                                        |                                   |                      |               |
| Credits and loans                                                                              | 100                               | (104.981)            | (83.984)      |
|                                                                                                | (100)                             | 104.981              | 83.984        |
| <b>Financial liabilities measured at fair value with changes in other comprehensive income</b> |                                   |                      |               |
| Derivative instruments                                                                         | 100                               | -                    | 104.821       |
|                                                                                                | (100)                             | -                    | (43.772)      |

- Amounts expressed in millions of Colombian pesos -

The EPM Group considers that the sensibility analysis is representative in respect to the exposure of the interest rate risk.

### 42.3. Exchange Rate Risk

Exchange rate risk is the risk that the fair value or the future cash flows of a financial instrument may fluctuate as consequence of the exchange rate variations.

The Group has identified that financial instruments affected by the exchange rate risk include:

- Cash and cash equivalents
- Investments at fair value through profit and loss
- Financial liabilities: measured at amortized cost-credits and loans
- Financial liabilities measured at fair value with changes in other comprehensive income-derivative instruments.

The exchange risk exposure refers, first, to the financing activities in a currency different from the functional currency and with the hedging operations contracted.

The Group manages its exchange rate risks through hedging operations in a medium term horizon. It is the Group's policy not to close speculative hedging operations, and thus the conditions of the derivative hedging instrument reply the underlying conditions in order to maximize the efficacy of the hedging.

The Group covers its exposure to fluctuations in the exchange rate using different hedging instruments among which are worth mentioning swaps, forwards and options at different terms.

#### Sensitivity analysis to exchange rates

The following table indicates the sensibility in respect to a possible reasonable change in exchange rates of \$100 pesos in the currency against the United States dollar not considering the effect of the hedging accounting. The impact originates by the change in monetary and non-monetary assets. Maintaining the rest variables constant the profit/loss before taxes and equity of the Group would be affected by changes in the exchange rates as follows:

|                                                                                                | Increase/decrease in<br>basic points | Financial effect     |               |
|------------------------------------------------------------------------------------------------|--------------------------------------|----------------------|---------------|
|                                                                                                |                                      | In profit before tax | In the equity |
| <b>2017</b>                                                                                    |                                      |                      |               |
| <b>Financial assets measured at fair value through profit or loss</b>                          | 100                                  | 1.795                | 1.436         |
|                                                                                                | (100)                                | (1.795)              | (1.436)       |
| <b>Financial liabilities measured at amortized cost</b>                                        |                                      |                      |               |
| Credits and loans                                                                              | 100                                  | (241.285)            | (193.028)     |
|                                                                                                | (100)                                | 241.285              | 193.028       |
| <b>Financial liabilities measured at fair value with changes in other comprehensive income</b> |                                      |                      |               |
| Derivative instruments                                                                         | 100                                  | 59.183               | 47.346        |
|                                                                                                | (100)                                | (59.183)             | (47.346)      |
| <b>2016</b>                                                                                    |                                      |                      |               |
| <b>Financial assets measured at fair value through profit or loss</b>                          | 100                                  | 16.650               | 13.320        |
|                                                                                                | (100)                                | (17.420)             | (13.936)      |
| <b>Financial liabilities measured at amortized cost</b>                                        |                                      |                      |               |
| Credits and loans                                                                              | 100                                  | (261.459)            | (209.167)     |
|                                                                                                | (100)                                | 261.459              | 209.167       |
| <b>Financial liabilities measured at fair value with changes other comprehensive income</b>    |                                      |                      |               |
| Derivative instruments                                                                         | 100                                  | 191.085              | 152.868       |
|                                                                                                | (100)                                | 9.633                | 7.707         |

*Amounts expressed in millions of Colombian pesos -*

The Group considers that the sensibility analysis is representative in respect to the exposure of the exchange rate risk.

#### 42.4. Credit Risk

The credit risk is the risk that one of the counterparts does not comply with the obligations derived from a financial instrument or purchase contract and that this will translate in a financial loss. The Group has identified that the financial instruments affected by the credit risk include:

- Cash and cash equivalents

- Other financial assets
- Accounts Receivable
- And other accounts receivable

Credit risk management by type of financial instrument is detailed below, is considered representative in respect to the credit risk exposure:

#### **Cash and cash equivalents and investments at fair value through profit and loss**

For credit risk management, the Group assigns limits by issuer, by counterpart and by intermediary taking into account the financial, risk and fundamental analysis of the entities, emphasizing on equity support of shareholders. The methodology considers the characteristics proper of the investments portfolio and the regulations applicable. The credit risk concentration is limited since it is due to the provisions of the business rules manual for treasury operations. The description of the factors that define the risk concentration is detailed below:

- The limits are updated quarterly based on the latest financial statements available of the entities analyzed.
- When the value of the consolidated investment portfolio exceeds the equivalent of 10,000 minimum monthly legal salaries in effect (MMLSE), no more than 20% of this value should not be concentrated in a single issuer, counterpart or intermediary with the exception of securities issued by governments that comply with the regulations in effect.
- Stock market intermediaries, other than the monitored banking institutions, may act as counterparts to perform operations, but cannot be considered as admissible issuers.
- Stock broker companies that act as counterpart of the treasury operations must have at least the second risk rating in strength or quality in the portfolio administration.
- Stock broker companies supported by banks, that is, banked counterparts, must have a minimum equity of 30,000 MMLSE.

Finally, the actions to avoid risk concentration are intended to establish, analyze, follow up and control the limits, for which they control the limits in effects and the status of utilization thereof. On the other hand, the justifications related to the need to override the limits temporarily are submitted to approval.

**Accounts receivable measured at amortized cost and other accounts receivable:** The Group is exposed to the risk that customers or users of public utilities incur in default in the payment of the utilities. Accounts receivable from public utility debtors are classified in two large groups: those originated by default in the payment and the other group corresponds to financing or payment agreements with customers that are made as strategy for recovery of receivables or for obtaining new customers.

The companies of EPM Group assess at the end of each balance sheet period the performance and value of accounts receivable to determine if there is any objective evidence that the receivables are impaired and identify the possible impact on future cash flows. The criteria used to determine if there is objective evidence of a loss for impairment are:

- Failure of customers to pay.
- It is known or evidenced that the client enters into business restructuring processes or in economic insolvency or in liquidation of the society.
- There are social alterations, of public order or natural disasters that according to the experience are directly correlated with the non-payment of the collection accounts.

In order to avoid an excessive concentration of risk of non-payment, the companies of the EPM Group have developed and put into operation various strategies that allow it to mitigate such risk, among which are:

- **Persuasive collection** by making telephone calls and sending letters to customers with the support of specialized collection agencies.
- Segmentation of clients that allow identifying those of greater risk, by their value, to perform with them personalized collection activities.
- Possibility of making payment agreements or partial payments that lead to the recovery of the exposed capital.
- Compensation of accounts receivable against accounts payable by the EPM Group with suppliers.
- When the previous strategies do not generate satisfactory results, we proceed with actions of coercive collection by suspending and cutting the service.
- If the previous strategies do not give satisfactory results, the **collection of the portfolio is proceeded through the judicial process.**

The Group considers that the value that best represents the exposure to credit risk at the end of the period, without considering any guarantee taken or other credit enhancements, is:

| Concepts                                                                 | 2017             | 2016             |
|--------------------------------------------------------------------------|------------------|------------------|
| Cash and cash equivalents (Títulos de renta fija y Encargos fiduciarios) | 156.891          | 1.194.499        |
| Other financial assets                                                   | 305.344          | 758.094          |
| Accounts receivable *                                                    | 474.742          | 431.483          |
| Other accounts receivable*                                               | 124.732          | 98.945           |
| <b>Maximum exposure to credit risk</b>                                   | <b>1.061.709</b> | <b>2.483.021</b> |

*Amounts expressed in millions of Colombian pesos -*

\* Corresponds to the value of the portfolio provision

#### Impairment of receivables

The expected credit losses are estimated considering the probability that a loss for uncollectibility may or may not occur and are recognized as profit or loss in the comprehensive income statement, profit and loss section against a lower value of the financial asset. The Group evaluates the credit risk of the account receivable monthly at the time of presenting the reports in order to determine the correction of the value for expected credit losses on the financial assets.

The noncompliance of the agreements is measured in accordance with the provisions of the service agreement and the rules proper of the affiliate in each country.

#### 42.5. Liquidity Risk

Liquidity Risk refers to the possibility that there would be insufficiency of resources for the timely payment of operations and commitments of the entity, and that because of this the Group would be forced to obtain liquidity in the market or to liquidate investments in an onerous manner. It is also understood as the possibility of not finding buyers for the portfolio securities.

The Group has identified that the financial instruments affected by the liquidity risk include:

- Non derivative financial assets
- Debt financial assets with variable interest rate
- Debt financial instruments with fixed interest rate

In order to control the liquidity risk comparisons of figures are made of benchmark indicators and of liquidity levels at different time horizons. As of that analysis, investment strategies are performed that do not affect the liquidity of the Group taking into account the cash budget and the market risk analyses

to consider the diversification of the sources of funds, the capacity to sell assets and the creation of contingency plans.

In general, the main aspects that are taken into account in the analysis are:

- a. **Liquidity of securities:** the characteristics of the issuer, amount of the issue and negotiation volume are analyzed.
- b. **Market liquidity:** the market's general behavior is analyzed and forecasts of rates are made in order to infer their future behavior.
- c. **Portfolio liquidity:** cash flows are coordinated in order to determine investment strategies in accordance with the future requirements of liquidity and diversification is sought to avoid the concentration of securities by issuer, rates and/or terms.

The following table shows the analysis of contractual expirations remaining for financial liabilities and assets not derivative:

|                                                           | Average effective interest rate | Less than 1 year | From 1 to 2 years | From 2 to 3 years | From 3 to 4 years | More than 4 years | Total contractual obligation |
|-----------------------------------------------------------|---------------------------------|------------------|-------------------|-------------------|-------------------|-------------------|------------------------------|
| <b>2017</b>                                               |                                 |                  |                   |                   |                   |                   |                              |
| Non-derivative financial assets                           | 4,63%                           | 174.760          | 8.402             | 7.000             | 8.000             | 2.000             | 200.162                      |
| Financial instruments of debt with variable interest rate | 6,33%                           | 1.447.600        | 1.843.851         | 1.282.056         | 334.277           | 3.153.412         | 8.061.196                    |
| Financial instruments of debt with fixed interest rate    | 7,71%                           | 238.999          | 1.747.699         | 243.663           | 1.729.399         | 4.912.824         | 8.872.585                    |
| <b>2016</b>                                               |                                 |                  |                   |                   |                   |                   |                              |
| Non-derivative financial assets                           | 6,95%                           | 586.383          | 12.000            | 4.000             | 4.000             | 10.000            | 616.383                      |
| Financial instruments of debt with variable interest rate | 6,57%                           | 648.489          | 642.132           | 1.772.787         | 2.254.792         | 3.193.987         | 8.512.187                    |
| Financial instruments of debt with fixed interest rate    | 7,62%                           | 127.366          | 179.610           | 1.696.665         | 184.625           | 3.966.226         | 6.154.492                    |

Amounts expressed in millions of Colombian pesos -

The values included in the above tables for financial assets and liabilities not derivative may change in view of changes in the variable interest rate with respect to the interest rate estimated at the end of the reporting period. The Group considers that the cash flows cannot occur earlier than indicated above.

The following table shows the analysis of contractual expirations remaining for financial liabilities derivatives:

|                   | Less than 1 year | From 1 to 2 years | From 2 to 3 years | From 3 to 4 years | Total contractual obligation |
|-------------------|------------------|-------------------|-------------------|-------------------|------------------------------|
| <b>2017</b>       |                  |                   |                   |                   |                              |
| Swap Agreements   | 45.094           | 30.857            | (14.388)          | (3.037)           | 53.046                       |
| <b>Total</b>      | <b>45.094</b>    | <b>30.857</b>     | <b>(14.388)</b>   | <b>(3.037)</b>    | <b>53.046</b>                |
| <b>2016</b>       |                  |                   |                   |                   |                              |
| Swap Agreements   | (106.920)        | (69.509)          | (69.563)          | 185.020           | (60.973)                     |
| Futures Contracts | 18               | -                 | -                 | -                 | -                            |
| <b>Total</b>      | <b>(106.902)</b> | <b>(69.509)</b>   | <b>(69.563)</b>   | <b>185.020</b>    | <b>(60.973)</b>              |

Amounts expressed in millions of Colombian pesos -

The main method for the measurement and follow up of the liquidity is the projection of the cash flow that is carried out in the companies of the Group and is consolidated in the cash budget. Derived from this a daily follow up is made of its cash position and projections of the latter are continuously made in order to:

- Follow up the liquidity needs related to the operating and investment activities associated to the acquisition and disposal of long term assets.
- Pay, prepay, refinance and/or obtain new credits, in accordance with the cash flows generation capacity in the Group.

These projections take into account the debt financing plans of the Group, the compliance with ratios, the compliance with the organizational objectives and the applicable regulations.

Finally, and additionally to the management of investments and the cash flow projection as part of the strategy of a prudent man agent of the liquidity risk, in order to control the current and working capital ratio at December 2017 equal to 0.74 and of \$-1,910,185, respectively, the EPM Group seeks to guarantee an adequate liquidity through the availability of long term financing with credit alternatives. At December 2017 it has lines of credit duly approved and renewable with the local banks for approximately \$3,000 billion pesos, a quota available for placing in the market local bonds for \$1,500 billion; additionally it has financing facilities signed and pending disbursement such as: credit agreement for USD300 million with the Export Development Canada (EDC), a credit agreement for USD200 with CAF - Latin American Development Bank, and a credit agreement for USD1,000 million dollars with IDB Invest.

#### **42.6. Insurance risk**

The EPM Group has incorporated a captive reinsurance company, domiciled in Bermuda, registered at REACOEX Colombia and rated A- by AM Best, and it is through that company how the reinsurance risk is transferred from the insurance company in Colombia (currently Sura) to the reinsurance market, for the policies of: Material Damages + Lost Profits, Sabotage and Terrorism, Directors and Administrators, Employee Infidelity and Financial Risks ("Crime"), Errors and Omissions, Civil Liability and Coverage for cybercrime.

As mentioned, said risk management is made through Maxseguros EPM Ltd., which consolidates the risks assumed and assigns them through reinsurance operations.

In reference to the policies for selection, assignment and management of reinsurance, these are carried out based on a strategy established jointly by the Integral Risk Management of EPM and Maxseguros EPM Ltd., that may change from one year to the next according to the fluctuations of the reinsurance market and the conditions of the risks insured; however, the intention is to have a strong support and a minimum rating of A- or equivalent is required.

Reinsurance companies with which the operations were performed in 2017 were the following:

| Reinsurer                               | Risk Rating |
|-----------------------------------------|-------------|
| Liberty Mutual USA                      | A           |
| Chubb Seguros (Federal Insurance)       | AA          |
| AIG (National Union Fire 78%)           | A           |
| Swiss Re International SE               | A+          |
| Liberty Mutual USA                      | A           |
| Swiss Re International SE               | A+          |
| AIG (National Union Fire 78%)           | A           |
| Berkley Insurance Company               | A+          |
| Hannover Re                             | AA-         |
| HCC International Insurance Company PLC | AA-         |
| Brit Syndicate 2987                     | A+          |
| Westport Insurance Corporation          | AA-         |
| Munich Re                               | AA-         |
| Travelers 5000                          | A+          |
| Chubb Global Markets 2488               | A+          |
| Argenta 2121                            | A+          |
| Millennium 9128                         | A+          |
| Zurich Insurance PLC UK Branch          | AA-         |
| Amlin 2001                              | A+          |
| Hardy 382                               | A+          |
| Starr Insurance and Reinsurance         | A           |
| Suramericana                            | BBB-        |
| Scor Reinsurance Company                | AA-         |
| Ace Property & Casualty                 | AA          |
| Liberty Mutual Insurance Europe Ltd.    | A           |
| Atrium 609                              | A+          |
| Brit 2987/2988                          | A+          |
| Helvetia Swiss Insurance Co.            | A           |
| Swiss Re America Corporation            | AA-         |
| Priority Underwriting                   | A+          |
| Chubb International Excess              | AA          |
| Partner Re                              | A+          |
| Talbot 1183                             | A+          |
| Tokio Marine 1880                       | A+          |
| Ark Renewable Energy Consortium         | A+          |
| Novae 2007                              | A+          |
| RSA Insurance PLC                       | A           |

The main losses that Maxseguros EPM Ltd. assumed in 2017 as a reinsurance captive of the EPM Group were:

| Loss                        | Value paid   | Value recovered from reinsurers | Value assumed |
|-----------------------------|--------------|---------------------------------|---------------|
| Guatapé Hydroelectric plant | 1.155        | 872                             | 283           |
| <b>Total</b>                | <b>1.155</b> | <b>872</b>                      | <b>283</b>    |

*Amounts expressed in millions of Colombian pesos -*

The value of the insured assets is as follows:

| Type of asset                        | 2017              | 2016              |
|--------------------------------------|-------------------|-------------------|
| Minor and aeolic plants (<20MW)      | 1.487.587         | 1.217.567         |
| Major hydroelectric plants           | 8.926.698         | 8.894.159         |
| La Sierra thermal plan               | 927.989           | 927.989           |
| Water Assets                         | 813.527           | 833.939           |
| Transmission and Distribution Assets | 1.551.178         | 1.543.944         |
| Corporate Assets                     | 1.085.395         | 1.185.871         |
| Gas Assets                           | 15.435            | 15.413            |
| <b>Total</b>                         | <b>14.807.809</b> | <b>14.618.882</b> |

*Amounts expressed in millions of Colombian pesos -*

## Note 43. Measurement of fair value on a recurring and non-recurring basis

The methodology established in IFRS 13 Fair value measurement specifies a hierarchy in the valuation techniques based on whether the variables used in the determination of the fair value are observable or not. The EPM Group determines the fair value on a recurring and non-recurring basis, as well as for disclosure purposes:

- Based on the prices quoted in active markets for assets or liabilities identical to those that the EPM Group can access on the measurement date (level 1).
- Based on valuation techniques commonly used by market participants such as cash flow discounts using the market rate for assets or liabilities, with similar characteristics (level 2).
- Based on internal cash flow discount valuation techniques, using variables estimated by the company not observable for the assets or liabilities, in lieu of variables observed in the market; and in some cases, the cost is taken as an estimate of the fair value. This applies when recent information available is insufficient to measure it, or if a wide range of possible measures exists of the fair value and the cost represents the best estimate of the fair value within that range (level 3).
- During 2017 and 2016 in the EPM Group no transfers have been made between the fair value hierarchy levels, either for the transfers into and out of the levels.

Valuation techniques and variables used in the Group to measure fair value for recognition and disclosure:

**Cash and cash equivalents:** include fixed income instruments and trusts. In the latter is reflected the balance of the Collective Investment Funds (FIC) that the EPM Group owns. These funds are used as mechanism for savings and investment and are managed by fiduciary companies. Through these funds, resources are invested in a portfolio of assets that are updated at fair value. The EPM Group uses as



valuation technique for this item the market approach; these items are classified at level 1 of the fair value hierarchy.

**Investments at fair value through profit and loss and through equity:** includes the investments that are made to optimize the liquidity surpluses, that is, all those resources that are not immediately allocated to the performance of the activities that constitute the corporate object of the companies. The EPM Group uses as valuation technique the market approach; these entries are classified in level 1 of the fair value hierarchy. For equity investments, the methodology is cash flow; it is estimated at the market price for those listed on the stock exchange; the others are valued at historical cost.

**Derivative instruments - Swaps:** The EPM Group uses derivative financial instruments, such forwards, futures, swaps and options to cover financial risks, mainly the risks of interest rate, exchange rate and commodities prices. Such derivative financial instruments are recognized initially at their fair value as of the date when the derivative agreement is executed, and subsequently they are again measured at their fair value. The EPM Group uses as valuation technique for the swaps the discounted cash flow, in an income approach. The variables used are: Swap curve of interest rates for rates denominated in US dollars, to discount cash flow in US dollars; and Swap Curve of external interest rate for rates denominated in pesos, to discount cash flows in pesos. These entries are classified in level 2 of the fair value hierarchy.

**Accounts receivable - business combinations:** originated by the business combination for the acquisition of the subsidiary Empresas Publicas de Rionegro, the discounts of the payment flows is considered applying the discount average CDT 360 day rates. This item is classified at level 2 of the fair value hierarchy.

**Contingent considerations:** originated by the business combinations for the acquisitions of the subsidiaries Espiritu Santo Energy S. de R.L. and Empresas Varias de Medellin S.A E.S.P. - EMVARIAS, the discounts of the payment flows is considered applying the discount rates: LIBOR and TES rates, respectively. These items are classified at level 2 of the fair value hierarchy. (See note 27. Provisions, contingent assets and liabilities).

**Investment properties:** these are properties (land or buildings, considered in their entirety or in part, or both) that are held (by the company in its own name or through a financial leasing) to earn income, for capital appreciation or both, instead of:

- Their use in the production or supply of goods or services, or for administrative purposes; or
- Their sale in the ordinary course of the operations.

The EPM Group uses two valuation techniques for these entries. Within the market approach, it uses the comparative or market method, which consists in deducting the price by comparison of transactions, supply and demand and appraisals of similar or comparable properties, prior adjustments of time, conformation and location. The entries that are valued with this technique are classified in level 2 of the fair value hierarchy. Within the cost approach, the residual method is used that is applied only to the buildings and is based on the determination of the updated construction cost, less the depreciation for age and conservation condition. These entries are classified in level 2 of the fair value hierarchy.

The following table shows for each of the fair value hierarchy levels, the assets and liabilities of the EPM Group, measured at fair value on a recurring basis to the cut-off date, as well as the total value of the transfers between level 1 and level 2 occurred during the period:

| Measurement of fair value on a recurring basis 2017    | Level 1          | Level 2         | Level 3       | Total            |
|--------------------------------------------------------|------------------|-----------------|---------------|------------------|
| <b>Assets</b>                                          |                  |                 |               |                  |
| <b>Negotiable or designated at fair value</b>          |                  |                 |               |                  |
| Cash and cash equivalents - Fiduciary assignments      | 156.891          | -               | -             | 156.891          |
|                                                        | <b>156.891</b>   | -               | -             | <b>156.891</b>   |
| <b>Other investments at a fair value (See note 13)</b> |                  |                 |               |                  |
| Fixed income securities                                | 238.428          | -               | -             | 238.428          |
| Variable income securities                             | 61.481           | -               | -             | 61.481           |
| Pledged investments or delivered in guarantees         | 5.435            | -               | -             | 5.435            |
|                                                        | <b>305.344</b>   | -               | -             | <b>305.344</b>   |
| <b>Other equity investments (See note 13)</b>          |                  |                 |               |                  |
| Variable income securities                             | 1.599.999        | -               | 36.782        | 1.636.781        |
|                                                        | <b>1.599.999</b> | -               | <b>36.782</b> | <b>1.636.781</b> |
| <b>Fiduciary rights (See note 13)</b>                  |                  |                 |               |                  |
| Fiduciary in administration                            | 386.655          | -               | -             | 386.655          |
|                                                        | <b>386.655</b>   | -               | -             | <b>386.655</b>   |
| <b>Derivatives (See note 13)</b>                       |                  |                 |               |                  |
| Futures contracts                                      | -                | 97              | -             | 97               |
| Swaps                                                  | -                | 19.445          | -             | 19.445           |
|                                                        | -                | <b>19.542</b>   | -             | <b>19.542</b>    |
| <b>Debtors (See note 12)</b>                           |                  |                 |               |                  |
| Other account receivable - business combination        | 2.017            | -               | -             | 2.017            |
|                                                        | <b>2.017</b>     | -               | -             | <b>2.017</b>     |
| <b>Investment properties (See notae 6)</b>             |                  |                 |               |                  |
| Urban and rural land                                   | -                | 108.705         | -             | 108.705          |
| Buildings and houses                                   | -                | 18.035          | -             | 18.035           |
|                                                        | -                | <b>126.740</b>  | -             | <b>126.740</b>   |
| <b>Liabilities</b>                                     |                  |                 |               |                  |
| <b>Contingent compensation (See note 26)</b>           |                  |                 |               |                  |
| Provision - business combination                       | -                | 144.453         | -             | 144.453          |
|                                                        | -                | <b>144.453</b>  | -             | <b>144.453</b>   |
| <b>Derivatives (See note 24)</b>                       |                  |                 |               |                  |
| Swaps                                                  | -                | 66.138          | -             | 66.138           |
|                                                        | -                | <b>66.138</b>   | -             | <b>66.138</b>    |
| <b>Total</b>                                           | <b>2.450.906</b> | <b>(64.309)</b> | <b>36.782</b> | <b>2.423.379</b> |
|                                                        | 101,14%          | -2,65%          | 1,52%         |                  |

Amounts expressed in millions of Colombian pesos-

| Measurement of fair value on a recurring basis 2016    | Level 1          | Level 2         | Level 3       | Total            |
|--------------------------------------------------------|------------------|-----------------|---------------|------------------|
| <b>Assets</b>                                          |                  |                 |               |                  |
| <b>Negotiable or designated at fair value</b>          |                  |                 |               |                  |
| Cash and cash equivalents - Encargos fiduciarios       | 126.255          | -               | -             | 126.255          |
|                                                        | <b>126.255</b>   | -               | -             | <b>126.255</b>   |
| <b>Other investments at a fair value (See note 13)</b> |                  |                 |               |                  |
| Fixed income securities                                | 658.751          | -               | -             | 658.751          |
| Variable income securities                             | 43.798           | -               | -             | 43.798           |
| Pledged investments or delivered in guarantees         | 9.184            | -               | -             | 9.184            |
| Investments received as guarantees                     | 642              | -               | -             | 642              |
|                                                        | <b>712.375</b>   | -               | -             | <b>712.375</b>   |
| <b>Other equity investments (See note 13)</b>          |                  |                 |               |                  |
| Variable income securities                             | 1.131.529        | -               | 30.049        | 1.161.578        |
|                                                        | <b>1.131.529</b> | -               | <b>30.049</b> | <b>1.161.578</b> |
| <b>Fiduciary rights (See note 13)</b>                  |                  |                 |               |                  |
| Fiduciary in administration                            | 386.605          | -               | -             | 386.605          |
|                                                        | <b>386.605</b>   | -               | -             | <b>386.605</b>   |
| <b>Derivatives (See note 13)</b>                       |                  |                 |               |                  |
| Future contracts                                       | -                | 18              | -             | 18               |
| Swaps                                                  | -                | 5.252           | -             | 5.252            |
|                                                        | -                | <b>5.270</b>    | -             | <b>5.270</b>     |
| <b>Investment properties (See notae 6)</b>             |                  |                 |               |                  |
| Urban and rural land                                   | -                | 109.077         | -             | 109.077          |
| Buildings and houses                                   | -                | 15.512          | -             | 15.512           |
|                                                        | -                | <b>124.589</b>  | -             | <b>124.589</b>   |
| <b>Liabilities</b>                                     |                  |                 |               |                  |
| <b>Contingent compensation (See note 26)</b>           |                  |                 |               |                  |
| Provision- Business combination                        | -                | 147.413         | -             | 147.413          |
|                                                        | -                | <b>147.413</b>  | -             | <b>147.413</b>   |
| <b>Derivatives (See note 24)</b>                       |                  |                 |               |                  |
| Swaps                                                  | -                | 70.951          | -             | 70.951           |
|                                                        | -                | <b>70.951</b>   | -             | <b>70.951</b>    |
| <b>Total</b>                                           | <b>2.356.764</b> | <b>(88.505)</b> | <b>30.049</b> | <b>2.298.308</b> |
|                                                        | 102,54%          | -3,85%          | 1,31%         |                  |

Amounts expressed in millions of Colombian pesos -

As of December 31, 2017 and December 31, 2016 there were no inter-level transfers.

The carrying amount and the estimated fair value of assets and liabilities of the EPM Group that are not recognized at fair value in the consolidated statement of financial condition, but require their disclosure at fair value, as of December 31, 2017 and 2016 is the following:

| 2017                              | Carrying Amount     | Level 2             | Total               |
|-----------------------------------|---------------------|---------------------|---------------------|
| <b>Assets</b>                     |                     |                     |                     |
| Public services                   | 2.089.112           | 2.089.112           | 2.089.112           |
| Employees                         | 141.950             | 141.950             | 141.950             |
| Construction contracts            | 434                 | 434                 | 434                 |
| Other accounts receivable         | 1.396.167           | 1.396.167           | 1.396.167           |
| <b>Total</b>                      | <b>3.627.663</b>    | <b>3.627.663</b>    | <b>3.627.663</b>    |
| <b>Liabilities</b>                |                     |                     |                     |
| Development banking loans         | 919.922             | 919.922             | 919.922             |
| Other bonds and securities issued | 8.240.200           | 8.240.200           | 8.240.200           |
| Multilateral banking loans        | 1.668.268           | 1.668.268           | 1.668.268           |
| Commercial banking loans          | 5.056.601           | 5.056.601           | 5.056.601           |
| Bonds and securities issued       | 1.073.732           | 1.073.732           | 1.073.732           |
| <b>Total</b>                      | <b>16.958.723</b>   | <b>16.958.723</b>   | <b>16.958.723</b>   |
| <b>Total</b>                      | <b>(13.331.060)</b> | <b>(13.331.060)</b> | <b>(13.331.060)</b> |

Amounts expressed in millions of Colombian pesos -

100%

| 2016                              | Carrying Amount     | Level 2             | Total               |
|-----------------------------------|---------------------|---------------------|---------------------|
| <b>Assets</b>                     |                     |                     |                     |
| Public services                   | 1.395.173           | 1.395.173           | 1.395.173           |
| Employees                         | 112.305             | 112.305             | 112.305             |
| Other accounts receivable         | 1.830.786           | 1.830.786           | 1.830.786           |
| <b>Total</b>                      | <b>3.338.264</b>    | <b>3.338.264</b>    | <b>3.338.264</b>    |
| <b>Liabilities</b>                |                     |                     |                     |
| Development banking loans         | 963.250             | 963.250             | 963.250             |
| Other bonds and securities issued | 6.135.271           | 6.135.271           | 6.135.271           |
| Multilateral banking loans        | 1.664.555           | 1.664.555           | 1.664.555           |
| Commercial banking loans          | 5.161.839           | 5.161.839           | 5.161.839           |
| Bonds and securities issues       | 923.093             | 923.093             | 923.093             |
| <b>Total</b>                      | <b>14.848.008</b>   | <b>14.848.008</b>   | <b>14.848.008</b>   |
| <b>Total</b>                      | <b>(11.509.744)</b> | <b>(11.509.744)</b> | <b>(11.509.744)</b> |

Amounts expressed in millions of Colombian pesos -

100%

As of December 31, 2017 and 2016, there were no concepts in levels 1 and 3.

## Note 44. Service Concession Contracts

As of the report date, the Group manages as concessionaire several concessions that contain provisions for the construction, operation and maintenance of facilities, as well as the provision of public services such as water supply, collection and treatment of waste water, in accordance with the regulations of application.

The remainder of the concessions where the Group acts as operator is detailed below:

| Company / Agreement                         | Activity                                                                                                                                                       | Country  | Concession period     | Initial remaining period |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------|--------------------------|
| EPM - Municipality of Caldas                | The Municipality undertakes to make available and facilitate the use of networks and other infrastructure for the provision of aqueduct and sewerage services. | Colombia | 30 years (extendable) | 11 years                 |
| EPM - Municipality of Sabaneta              | The Municipality undertakes to make available and facilitate the use of networks and other infrastructure for the provision of aqueduct and sewerage services. | Colombia | 10 years (extendable) | 7 years                  |
| EPM - Municipality of La Estrella           | Execution of works and provision of water supply and sewerage services.                                                                                        | Colombia | 10 years (extendable) | 7 years                  |
| EPM - Municipality of Envigado              | Provision of the aqueduct and sewer service.                                                                                                                   | Colombia | 10 years (extendable) | 10 years                 |
| EPM - Municipality of Itagüí                | Construction of the aqueduct and sewerage networks for the provision of the service in the assigned districts.                                                 | Colombia | 30 years (extendable) | 30 years                 |
| EPM - Municipality of Bello                 | Execution of works and provision of the aqueduct and sewer service.                                                                                            | Colombia | 10 years (extendable) | 5 years                  |
| EPM - Municipality of Copacabana            | The Municipality commits to the execution of works for the supply of drinking water, sewage and provision of such services.                                    | Colombia | 20 years (extendable) | 13 years                 |
| EPM - Municipality of Girardota             | Provision of the aqueduct and sewer service.                                                                                                                   | Colombia | 20 years (extendable) | 15 years                 |
| EPM - Municipality of Barbosa               | The Municipality undertakes to make available and facilitate the use of networks and other infrastructure for the provision of aqueduct and sewerage services. | Colombia | 30 years (extendable) | 10 years                 |
| Aguas Regionales - Municipality of Apartadó | The Municipality agrees to make available the movable and immovable goods that make up the system for the rendering of the water supply and sewer services.    | Colombia | 30 years              | 20 years                 |
| Aguas Regionales - Municipality of Carepa   | The Municipality agrees to make available the movable and immovable goods that make up the system for the                                                      | Colombia | 30 years              | 20 years                 |

| Company / Agreement                                      | Activity                                                                                                                                                    | Country  | Concession period                       | Initial remaining period |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------|--------------------------|
|                                                          | rendering of the water supply and sewer services.                                                                                                           |          |                                         |                          |
| Aguas Regionales - Municipality of Chigorodó             | The Municipality agrees to make available the movable and immovable goods that make up the system for the rendering of the water supply and sewer services. | Colombia | 30 years                                | 20 years                 |
| Aguas Regionales - Municipality of Mutatá                | The Municipality agrees to make available the movable and immovable goods that make up the system for the rendering of the water supply and sewer services. | Colombia | 30 years                                | 20 years                 |
| Aguas Regionales - Municipality of Turbo                 | The Municipality agrees to make available the movable and immovable goods that make up the system for the rendering of the water supply and sewer services. | Colombia | 30 years                                | 20 years                 |
| Aguas Regionales - Municipality of Santa Fe de Antioquia | The Municipality agrees to make available the movable and immovable goods that make up the system for the rendering of the water supply and sewer services. | Colombia | 30 years                                | 20 years                 |
| Aguas Regionales - Municipality of San Jerónimo          | The Municipality agrees to make available the movable and immovable goods that make up the system for the rendering of the water supply and sewer services. | Colombia | 30 years                                | 20 years                 |
| Aguas Regionales - Municipality of Sopetrán              | The Municipality agrees to make available the movable and immovable goods that make up the system for the rendering of the water supply and sewer services. | Colombia | 30 years                                | 20 years                 |
| Aguas Regionales - Municipality of Olaya                 | The Municipality agrees to make available the movable and immovable goods that make up the system for the rendering of the water supply and sewer services. | Colombia | 30 years                                | 20 years                 |
| Aguas de Oriente - Municipality of El Retiro             | Operate and maintain the networks and other infrastructure received within the concept of an adequate provision of the Aqueduct and Sewerage service        | Colombia | Without and explicit period of duration | 167 months               |

| Company / Agreement                                                        | Activity                                                                                                                                                      | Country | Concession period | Initial remaining period |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------|--------------------------|
| Aquasol Morelia - Morelia                                                  | Sewage treatment                                                                                                                                              | México  | 20 years          | 17 years                 |
| Hydraulic development of Tampico - Tampico                                 | Sewage treatment                                                                                                                                              | México  | 24 years          | 22 years                 |
| Ecosystem of Celaya - Jumapa de Celaya                                     | Sewage treatment                                                                                                                                              | México  | 20 years          | 14 years                 |
| Ecosystem of Colima - Municipality of Colima y Villa de Álvarez            | Sewage treatment                                                                                                                                              | Mexico  | 34 years          | 24 years                 |
| Ecosystem of the City of Lerdo - City Council of the Municipality of Lerdo | Sewage treatment                                                                                                                                              | Mexico  | 20 years          | 11.5 years               |
| Ecoagua de Torreón - Municipal water and sanitation system of Torreón      | Sewage treatment                                                                                                                                              | Mexico  | 20 years          | 4.7 years                |
| Ecosystem of Tuxtla - Municipal water and sewage system                    | Sewage treatment                                                                                                                                              | Mexico  | 20 years          | 16 years                 |
| Ecosystem of Uruapan - Municipality of Uruapan                             | Sewage treatment                                                                                                                                              | Mexico  | 15 years          | 13 years                 |
| ADASA - Concessionary Company of Sanitary S.A. - Econssa Chile S.A.        | Establishment, construction and operation of public services for the production and distribution of drinking water and collection and disposal of wastewater. | Chile   | 30 years          | 16 years                 |

### Service concession agreements for the rendering of the water and sewage service

#### In Colombia:

The concession agreements between companies of the Group domiciled in Colombia with the municipalities provide the conditions under which the water and sewage networks are managed, operated and maintained for the provision of the potable water and wastewater treatment services to its inhabitants, in the terms, conditions and rates established by the Potable Water and Water Sanitation Regulation Commission - CRA (for its initials in Spanish).

The agreements indicate the following rights and obligations for the Group companies as operator in the service concession agreement:

- Right to receive from the municipality all the water and sewage networks and to have exclusivity as operator of the system.
- Obligation to make exclusive use of aqueduct and sewerage networks for the purposes for which they are intended, to maintain them and to return them under the conditions of use in which they were received.
- Some concession agreements have the option of being renewed automatically for equal periods unless one of the parties declares the intention not to continue with it.
- The concession agreements do not establish the obligation to construct elements of property, plant and equipment.

Upon termination of the concession, the Group companies must return the aqueduct and sewage networks without any consideration to the municipalities. There have been no changes in the terms of the concession agreements during the period.

#### **In Chile:**

The concession agreement of ADASA, domiciled in Antofagasta - Chile, with the Empresa Concesionaria de Servicios Sanitarios S.A. - Econssa S.A. establishes the conditions for the financing and performance of the works required for the maintenance, replacement and expansion of the infrastructure and facilities necessary to meet the demand of the related public utilities, during the term of the exploitation right, in the operational territory of the concession and pursuant to the Development Plan approved by ECONSSA CHILE S.A. or that qualified by the Superintendency of Sanitary Services in the term of article fifty-eight of the General Sanitary Services Law.

As part of the contract that granted the Concession to the Company, the latter received real property, movable goods, facilities, rights of use of water and easements, that are used in the exploitation of the sanitary concessions. The Company is prohibited from assigning, encumbering, leasing or create any right in favor of third parties on the goods received through the concession, which shall be returned upon termination of the Contract in 'as is' condition. The subsequent investments made by the Company, in that part that cannot be recovered from rates because their use estimate exceeds the remaining term of the Sanitary Concession, will be recovered in that proportion at the termination of the concession, when ECONSSA Chile S.A. will make the reimbursement of these investments, since the investment reimbursement places are applicable, as indicated and provided by the respective transfer contract executed.

As part of its obligations, the Company must present annually specific information on the goods of use kept under a gratuitous loan, as well as the new investments made within the framework established in the transfer contract executed between both companies, to include a record of each and all of the facilities and networks of the sanitary services of production and distribution of drinking water and collection and disposal of wastewater.

For these agreements the intangible asset model is applicable. See note 6. Other intangible assets.

#### **Concession agreements of services for the construction and operation of wastewater treatment plants - PTAR-**

The concession agreements between companies of the EPM Group domiciled in Mexico with municipal waste and sanitation organizations establish the conditions how the wastewater treatment plants are constructed, operated and maintained, the term and the dates and basis on which the rates are revised.

The agreements indicate the following rights and obligations for the companies of the EPM Group as operator in the service concession agreement:

Temporary and free use of the land through the applicable legal form, for the operation and construction of the plan.



Deliver water treated pursuant to the environmental regulations.

Upon termination of the agreement, train the personnel indicated by the Assignor for the operation, conservation and maintenance of the wastewater treatment plant; deliver the inputs, spares and tools for the operation of the plant for a period of time.

Upon termination of the concession, the companies of the EPM Group must return the wastewater treatment plans without any consideration to the municipal water and sanitation organizations. There have been no changes in the terms of the concessions agreement during the period.

For this agreement, the financial asset model is applicable. See Note 12 - Trade debtors and other receivables.

## Note 45. Operating Segments

### 45.1 Information by segments

For management purposes, the EPM Group is organized in segments on the basis of its products and services, and it has the following eight operating segments on which information is presented:

#### Energy

- Electricity Generation Segment, which activity consists in the production of energy and commercialization of large blocks of electric power, based on the acquisition or the development of a portfolio of energy proposals for the market.
- Electricity Distribution Segment, which activity consists in transporting electric power through a set of lines and substations, with their associated equipment, that operate at voltages of less than 220 KV, the commercialization of energy to the end user of the regulated market and the performance of related and/or complementary activities. It includes the Regional Transmission System (RTS), the Local Distribution System (LDS), the public lighting service and the rendering the associated services.
- Electricity Transmission Segment, which activity consists in the transportation of energy in the National Transmission System -NTS-, made up by the set of lines, with their corresponding connection equipment, that operate at voltages equal to or higher than 220 KV. The National Transmitter (NT) is the legal person who operates and transports electric energy in the NTS or has constructed a company which object is the performance of that activity.
- Segment of Distribution and Commercialization of Natural Gas, which activity consists in the conduction of gas from the door of the city to the end user, through medium and low pressure pumps. It includes the sale of gas through different systems, among them the distribution by a network, natural vehicle gas, natural compressed gas and service stations.

#### Water

- Water Supply Segment, which activity consists in conceptualizing, structuring, development and operating systems to supply water; it includes carrying out the commercial management of the service portfolio related to the supply of water for different uses, in addition to the use of the productive chain, specifically in the production of energy, and the supply of crude water.
- Sewage Segment, which activity consists in conceptualizing, structuring, development and operating systems of wastewater and handling of solid waste.
- Waste Management Segment, which includes carrying out the commercial management related to these services and the use of the biosolids and other byproducts from the treatment of wastewater and the handling of solid waste.

#### Others

- Others Segment, that corresponds to the remaining activities that are not included within the above mentioned segments; it includes: Entidad Adaptada de Salud - EAS and Unidad de Servicios Médico

y Odontológico (medical and dental services), billing and collection services for third parties, income received from investment properties (rent), social financing, EATIC Laboratory tests, rendering of specialized transportation service, and services associated to information and communications technologies, information services and the complementary activities related and/or connected to such services.

The Group has not added operating segments to form this eight reportable segments; however, the Company carries out the activity of commercialization of energy, which consists in the purchase of electric power in the wholesale market and its sale to other market agents, or to the end users regulated or not regulated; therefore, the Company includes the information of this activity in the corresponding segments that contain this activity.

Management supervises the operating results of the operating segments separately in order to make decisions on the assignment of resources and assess their return. The return of the segments is assessed on the basis of profit or loss for operations before tax and of discontinued operations and is measured uniformly with the loss or profit for operations of the consolidated financial statements.

Transfer pricing between the operating sectors are agreed as between independent parties (arm's length principle) in a similar way that they are agreed with third parties.

| 2017                      |             | Energy       |              |           |              |              | Water        |            |           |             |             | Other          |                           | Total        |
|---------------------------|-------------|--------------|--------------|-----------|--------------|--------------|--------------|------------|-----------|-------------|-------------|----------------|---------------------------|--------------|
| Item                      | Generation  | Transmission | Distribution | Gas       | Eliminations | Total Energy | Water Supply | Sanitation | Cleaning  | Elimination | Total Water | Other Segments | Intersegment Eliminations | Segments     |
| Revenues                  | 3.491.970   | 318.840      | 10.554.957   | 746.183   | (2.040.646)  | 13.071.304   | 1.033.491    | 672.394    | 212.061   | (81.680)    | 1.836.266   | 147.431        | (104.653)                 | 14.950.348   |
| Cost and expenses         | (2.016.433) | (173.036)    | (9.117.059)  | (701.325) | 2.017.159    | (9.990.694)  | (687.244)    | (366.986)  | (194.245) | 23.336      | (1.225.139) | (227.304)      | 105.986                   | (11.337.151) |
| Net exchange difference   | 21.665      | (462)        | 14.761       | 100       | -            | 36.064       | (5.564)      | (25.471)   | -         | -           | (31.035)    | 153.701        | -                         | 158.730      |
| Net financial services    | (268.138)   | (44.301)     | (169.051)    | (17.039)  | (1.521)      | (500.050)    | (78.267)     | (34.574)   | 8.385     | (268)       | (104.724)   | (151.436)      | (13.165)                  | (769.375)    |
| Associated to investments | 1.224       | 1.224        | 3.625        | -         | -            | 6.073        | 1            | 11         | -         | -           | 12          | (24.643)       | 92.221                    | 73.663       |
| Profit before tax         | 1.230.288   | 102.265      | 1.287.233    | 27.919    | (25.008)     | 2.622.697    | 262.417      | 245.374    | 26.201    | (58.612)    | 475.380     | (102.251)      | 80.389                    | 3.076.215    |
| Tax provision             | (274.513)   | (34.715)     | (469.114)    | (4.579)   | 4.076        | (778.845)    | (13.067)     | 12.968     | (9.450)   | 19.282      | 9.733       | (26.335)       | 9.487                     | (785.960)    |
| Regulatory accounts, net  | -           | -            | 36.847       | -         | -            | 36.847       | -            | -          | -         | -           | -           | -              | -                         | 36.847       |
| Profit for the period     | 955.775     | 67.550       | 854.966      | 23.340    | (20.932)     | 1.880.699    | 249.350      | 258.342    | 16.751    | (39.330)    | 485.113     | (128.586)      | 89.876                    | 2.327.102    |
| Total assets              | 18.343.053  | 1.719.111    | 13.918.087   | 967.170   | (5.293.149)  | 29.654.272   | 5.818.751    | 5.123.336  | 305.502   | (4.088.402) | 7.159.187   | 12.436.826     | (1.944.608)               | 47.305.677   |
| Total equity              | 8.137.926   | 719.725      | 5.093.228    | 395.201   | (3.059.943)  | 11.286.137   | 2.955.370    | 2.771.026  | 60.720    | (3.684.048) | 2.103.068   | 7.477.982      | 1.022                     | 20.868.209   |
| Total liabilities         | 10.205.126  | 999.386      | 8.824.860    | 571.969   | (2.233.206)  | 18.368.135   | 2.863.381    | 2.352.310  | 244.782   | (404.354)   | 5.056.119   | 4.958.844      | (1.945.630)               | 26.437.468   |

Amounts expressed in millions of Colombian pesos -

| 2016                               |             | Energy       |              |           |              |              | Water        |             |           |             |             | Other          |                           | Total        |
|------------------------------------|-------------|--------------|--------------|-----------|--------------|--------------|--------------|-------------|-----------|-------------|-------------|----------------|---------------------------|--------------|
| Concepto                           | Generation  | Transmission | Distribution | Gas       | Eliminations | Total Energy | Water Supply | Sanitation  | Cleaning  | Elimination | Total Water | Other Segments | Intersegment Eliminations | Segments     |
| Revenues                           | 3.934.253   | 226.619      | 10.357.594   | 838.358   | (1.959.150)  | 13.397.674   | 1.560.231    | 690.315     | 185.950   | (27.325)    | 2.409.171   | 155.385        | (108.019)                 | 15.854.211   |
| Costs and expenses                 | (3.286.318) | (158.085)    | (8.710.497)  | (738.696) | 1.957.047    | (10.936.549) | (601.509)    | (1.035.298) | (159.923) | 27.325      | (1.769.405) | (354.929)      | 107.997                   | (12.952.886) |
| Net exchange difference            | 187.731     | 12.974       | (5.770)      | (2.969)   | -            | 191.966      | 471          | 3.806       | -         | -           | 4.277       | 49.656         | -                         | 245.899      |
| Financial income and expenses, net | (92.322)    | (18.377)     | (196.084)    | (3.425)   | 2.102        | (308.106)    | (83.672)     | (25.021)    | 915       | -           | (107.778)   | (231.372)      | 23                        | (647.233)    |
| Associated to investments          | 666         | 666          | 2.576        | -         | -            | 3.908        | 6            | -           | -         | -           | 6           | (39.399)       | -                         | (35.485)     |
| Profit before tax                  | 744.010     | 63.797       | 1.447.819    | 93.268    | (1)          | 2.348.893    | 875.527      | (366.198)   | 26.942    | -           | 536.271     | (420.659)      | 1                         | 2.464.506    |
| Tax provision                      | 68.591      | (4.600)      | (568.236)    | (40.885)  | -            | (545.130)    | (333.280)    | 54.445      | (10.783)  | -           | (289.618)   | 185.619        | -                         | (649.129)    |
| Regulatory accounts, net           | -           | -            | 50.368       | -         | -            | 50.368       | -            | -           | -         | -           | -           | -              | -                         | 50.368       |
| Profit for the period              | 812.601     | 59.197       | 929.951      | 52.383    | (1)          | 1.854.131    | 542.247      | (311.753)   | 16.159    | -           | 246.653     | (235.040)      | 1                         | 1.865.745    |
| Total assets                       | 17.334.842  | 1.469.025    | 12.433.540   | 1.050.600 | (4.238.443)  | 28.049.564   | 5.308.301    | 3.450.558   | 286.512   | (3.535.730) | 5.509.641   | 11.212.477     | (1.817.412)               | 42.954.270   |
| Total equity                       | 7.695.535   | 661.747      | 4.926.292    | 400.642   | (2.812.085)  | 10.872.131   | 2.662.613    | 2.134.571   | 39.659    | (3.040.361) | 1.796.482   | 7.402.670      | (287.978)                 | 19.783.305   |
| Total liability                    | 9.639.307   | 807.278      | 7.507.247    | 649.957   | (1.426.358)  | 17.177.431   | 2.645.688    | 1.315.987   | 246.853   | (495.369)   | 3.713.159   | 3.809.807      | (1.529.432)               | 23.170.965   |

Amounts expressed in millions of Colombian pesos -

## 45.2 Information by geographic area

### Revenues from external customers

| Country                                    | 2017              | 2016              |
|--------------------------------------------|-------------------|-------------------|
| Colombia (country of domicile of EPM)      | 9.649.510         | 10.770.712        |
| Guatemala                                  | 1.921.914         | 1.949.804         |
| Panama                                     | 1.911.027         | 1.768.797         |
| El Salvador                                | 801.102           | 717.452           |
| Chile                                      | 535.137           | 445.899           |
| Mexico                                     | 119.913           | 189.190           |
| Ecuador                                    | 4.994             | 5.826             |
| Bermuda                                    | 8.229             | 9.498             |
| International intersegment elimination     | (1.478)           | (2.966)           |
| <b>Total countries other than Colombia</b> | <b>5.300.838</b>  | <b>5.083.499</b>  |
| <b>Total consolidades income</b>           | <b>14.950.348</b> | <b>15.854.211</b> |

Amounts expressed in millions of Colombian pesos -

The information on revenues is based on the location of the customer.

In the EPM Group no customer generates more than 10% of the revenues.

### Non-Current Assets

| Country                                    | 2017              | 2016              |
|--------------------------------------------|-------------------|-------------------|
| Colombia (country of domicile of EPM)      | 28.606.870        | 25.609.323        |
| Chile                                      | 3.627.065         | 3.463.597         |
| Panama                                     | 2.026.401         | 1.970.997         |
| Guatemala                                  | 1.987.493         | 1.773.058         |
| El Salvador                                | 315.612           | 310.184           |
| Mexico                                     | 53.779            | 52.737            |
| <b>Total countries other than Colombia</b> | <b>8.010.350</b>  | <b>7.570.572</b>  |
| <b>Total non-current assets</b>            | <b>36.617.220</b> | <b>33.179.895</b> |

Amounts expressed in millions of Colombian pesos -

For these purposes, the non-current assets include properties, plant and equipment, intangible assets and investment properties including the assets for acquisition of subsidiaries and goodwill.

## Note 46. Events occurred after the period being reported

After the date of presentation of the consolidated financial statements and before the date of authorization of its publication, no relevant events were presented that imply adjustments to the figures.



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## INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of  
EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. (EPM):

### Identification of the financial statements subject to audit

We have audited the accompanying financial statement of EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P., which comprise the statements of financial position as of December 31, 2017, the statement of income and other comprehensive income, of changes in shareholders' net equity and of cash flows for the year ended on that date, and a summary of significant accounting policies and other explanatory notes.

### Responsibility of the Company's management for the financial statements

Management is responsible for the preparation and fair presentation of the these financial statements in accordance with International Financial Reporting Standards adopted in Colombia by the General Accounting Office of the Nation, and for the internal control that management considers relevant for the preparation and accurate presentation of the financial statements free from material misstatements, whether due to fraud or error; select and apply the appropriate accounting policies; as well as make accounting estimates that are reasonable in the circumstances.

### Auditor's Responsibility

Our responsibility is to express an opinion on the accompanying financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing accepted in Colombia. Those standards require that we comply with ethical requirements, and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence that we have obtained is sufficient and appropriate to provide a basis for my audit opinion.

**Opinion**

In our opinion, the accompanying financial statements referred above, taken from the accounting books, present fairly, in all material respects, the financial position of EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. as of December 31, 2017, the results of its operations and its cash flows for the year ended on that date, in conformity with International Financial Reporting Standards adopted in Colombia by the General Accounting Office of the Nation.

**Other matters**

The financial statements as of December 31, 2016 are included for comparative purposes only, were audited and we expressed our opinion on them without qualifications on March 14, 2017.



DELOITTE & TOUCHE LTDA.  
March 20, 2018.

## Certificación del Representante Legal y del Contador de EPM

20 de marzo de 2018

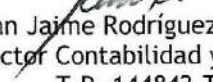
A la Junta Directiva de  
Empresas Públicas de Medellín E.S.P.

Los suscritos, en sus calidades de Representante Legal y Contador de Empresas Públicas de Medellín E.S.P., certificamos que los saldos de los Estados financieros de Empresas Públicas de Medellín E.S.P. a 31 de diciembre de 2017 y 2016, fueron tomados fielmente de los libros de contabilidad, los cuales están elaborados de conformidad con las Normas Internacionales de Información Financiera - NIIF, publicadas y aplicables para el periodo e incorporadas al Régimen de Contabilidad Pública; que la información que se revela refleja en forma fidedigna la situación y operación financiera, económica, social y ambiental de Empresas Públicas de Medellín E.S.P.; y hacen constar que para su elaboración, se verificaron las afirmaciones contenidas en los mencionados Estados financieros, con relación a:

- a) Todos los hechos económicos que han ocurrido durante los años de corte se han registrado adecuadamente en los respectivos periodos, en atención a su debido reconocimiento en las cantidades y cuentas apropiadas, y medidos por los importes razonables y revelados adecuadamente.
- b) Todos los activos, pasivos y patrimonio neto de los Estados financieros representan la existencia de derechos y obligaciones a cargo de Empresas Públicas de Medellín E.S.P.
- c) Las revelaciones o notas contables están elaboradas con claridad y conforme a las Normas Internacionales de Información Financiera - NIIF.

Los estados financieros no contienen vicios, imprecisiones o errores que impidan conocer la verdadera situación financiera y el rendimiento financiero de la Entidad.

  
Jorge Londoño De la Cuesta  
Gerente General

  
John Jaime Rodríguez Sosa  
Director Contabilidad y Costos  
T.P. 144842-T

*estamos ahí.*





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## INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of  
EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. (EPM):

### Identification of the financial statements subject to audit

We have audited the accompanying financial statement consolidated of EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. and subsidiaries, which comprise the consolidated statements of financial position as of December 31, 2017, the consolidated statement of income and other comprehensive income, of changes in shareholders' net equity and of cash flows for the year ended on that date, and a summary of significant accounting policies and other explanatory notes.

### Responsibility of the Company's management for the financial statements

Management is responsible for the preparation and fair presentation of the these consolidated financial statements in accordance with International Financial Reporting Standards adopted in Colombia by the General Accounting Office of the Nation, and for the internal control that management considers relevant for the preparation and accurate presentation of the financial statements free from material misstatements, whether due to fraud or error; select and apply the appropriate accounting policies; as well as make accounting estimates that are reasonable in the circumstances.

### Auditor's Responsibility

Our responsibility is to express an opinion on the accompanying financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing accepted in Colombia. Those standards require that we comply with ethical requirements, and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence that we have obtained is sufficient and appropriate to provide a basis for my audit opinion.

**Opinion**

In our opinion, the accompanying financial statements referred above, taken from the accounting books, present fairly, in all material respects, the financial position of EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. and subsidiaries as of December 31, 2017, the consolidated results of its operations and its consolidated cash flows for the year ended on that date, in conformity with International Financial Reporting Standards adopted in Colombia by the General Accounting Office of the Nation.

**Other matters**

The consolidated financial statements as of December 31, 2016 are included for comparative purposes only, were audited and we expressed our opinion on them without qualifications on March 14, 2017.

A handwritten signature in black ink that reads "Deloitte & Touche Ltda." with a period at the end.

DELOITTE & TOUCHE LTDA.  
March 20, 2018.

## Certification of the legal representative and accountant of EPM

March 20, 2018


Board of Directors  
Empresas Públicas de Medellín E.S.P.

The undersigned legal representative and accountant of Empresas Públicas de Medellín E.S.P. certify that the balances of the consolidated financial statements of Empresas Públicas de Medellín E.S.P. and their subsidiary companies as of December 31, 2017 and 2016, were faithfully taken from the accounting books, which were made in accordance with the International Financial Reporting Standards (IFRS) and that the information reflects the financial, economic, social and environmental situation and operation of Empresas Públicas de Medellín E.S.P. and subsidiary companies in a reliable manner; furthermore, they note that, for its preparation, the assertions appearing on the aforementioned consolidated financial statements were verified, regarding:

- a) All the transactions that have been made in the covered years have been accurately registered on the respective periods, pursuant to the appropriate acknowledgement of the proper quantities and accounts, and measured by the reasonable costs and appropriately revealed.
- b) All the assets, liabilities, and net equity of the consolidated financial statements reflect the existence of rights and obligations of Empresas Públicas de Medellín E.S.P. and its subsidiary companies.
- c) The disclosures or accounting notes were prepared with clarity and in accordance with the IFRS.

The financial statements do not contain defects, inaccuracies, or errors that may prevent the actual financial position and financial performance of the entity from being known.

  
Jorge Londoño De la Cuesta  
CEO

  
John Jaime Rodríguez Sosa  
Director of Accounting and Costs  
Professional License: 144842-T

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