

Sustainability Report 2019



*Contribute to the harmony of life
for a better world*

Grupo·epm



Our
Group

Grupo·epm



2019 Management Report

Grupo·epm

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Letter from the CEO

Medellín, March 27, 2020

Board of Directors of EPM

Grupo EPM is an organization that understands its daily mission as an opportunity to interact with the people, listen to the community, and work with much dedication and commitment in innovative solutions to favor development, equity, and social welfare.

In this 2020, upon taking on the responsibility to direct this dear company from Medellín, Antioquia, and Colombia, expanded with the same organizational values and principles into several countries of Latin America, I confirm the great skills of its people, the esteem they feel for what they do, and the constant learning process that gives meaning to the service—the core of this business group—in each activity, each project, and each decision made.



Consequently, in the introduction of this 2019 Management Report, I would like to first show my appreciation to those who, at this company, make possible the reality of reaching every day so many homes, companies, and businesses, offering the highest-quality public utilities intended to open spaces for growth and opportunities, which results in social dynamics such as education, employment, healthcare, and civic culture. In short, the goal is to build the present and the future.

As a result, EPM always shows in its reports that what all this corpus of figures and results mainly reflects is the work of the people, their effort to improve every day and create a very positive symbiosis with the communities, which favors the comprehensive development of the current world.

I thus highlight that large-scale and technically-complex works, such as the Ituango hydroelectric project and the Aguas Claras wastewater treatment plant are conceived not only as accomplishments in the field of infrastructure, but also as actual alternatives to improve and significantly contribute to the growth of the community in every sense.

In this sense, the idea that I have about EPM is that of an organization that transforms the lives of the people and that opens doors for change and the construction of progress.

Evidence of this is the transfers to the Municipality of Medellín, the regional autonomous corporations, and other municipalities where the company is developing projects; these life-changing contributions result in quality of life.

The year 2019 will go down in the history of EPM as the period in which the company firmly made progress with the Ituango hydroelectric project in order to essentially reduce the risks for the communities downstream. After the contingency that started in 2018, the organization has worked tirelessly to, first of all, protect the lives of the people and, secondly and thirdly, preserve the environment, and recover the project.

During this period, very important achievements took place, such as closing the gates to stop the flow of water through the powerhouse and, in this way, drain the liquid from it and start the necessary works in the caverns and tunnels affected. The commissioning of the spillway as a canal to dispel the energy of the water contained in the reservoir is also highlighted. At this moment, we started a new phase that, with the purpose of further reducing the risks for the communities, consists in making progress with the works at the powerhouse and commissioning, as soon as possible, the intermediate discharge tunnel.

Moreover, the work at the Aguas Claras wastewater treatment plant, opened in 2019, continues responsibly to eliminate the odor affecting the neighboring community.

Taking an innovative perspective, the company continued making progress with the businesses, which has yielded results in nonconventional renewable energies, the modernization and expansion of the water supply and sewerage systems in several sectors of Valle de Aburrá, the connection of more homes in Medellín and Antioquia to the natural gas utility, and the management of significant aspects in solid waste. All the above is supported by truly relevant programs such as Unidos por el Agua (United for Water), Electrificación Rural (Rural Electrification), and Alumbrado Navideño (Christmas lighting), as well as programs related to sustainable mobility and prepaid services and many others described below.

In Medellín, Urabá, Eastern Antioquia, and the cities of Colombia and Latin America where we are present, 2019 was a year of accomplishments with Grupo EPM.

This is a financially sound organization, with a liquidity level that allows it to ensure the provision of public utilities and the compliance with the obligations acquired. In addition, the group has long-term sources of financing at its disposal, with credits already negotiated that allow it to meet the investment plan and cover the needs created by the Ituango hydroelectric project contingency.

We have analyzed the urgent topics and we are also starting to lay out ideas that we should elaborate from now in the teams. Thus, we designed a metaplan, which is the road map for the following months and years.

We structured **seven focal points of Grupo EPM**, which are in line with the strategic planning, the strategic goals, and the strategic focal points that the company has been implementing. In these focal points, we can find elements related to the growth of the organization, the connection of the company and the city with the region, innovation, digital transformation, and the implementation of technology that will allow us to move forward as a more modern company.

Focal point 1: future services, smart cities, and fourth industrial revolution

As part of the fourth industrial revolution and smart cities, we will aim at improving the engagement with customers, offering them a better service, and migrating from analog processes through a technology-mediated transformation. Topics as important as mobility and air quality are included in this focal point.

Focal point 2: city/region

Our purpose is to align ourselves with a wider environment. We want that this company can be an increasingly integrating agent of the different regions of the country: Urabá, Eastern Antioquia, Lower Cauca, etc. The purpose of this focal point of Grupo EPM is that their contributions have optimal value.

Focal point 3: growth

This focal point seeks to adjust the corporate purpose of the organization to the technological transformations and the new business models offering more opportunities to the business group.

Focal point 4: socioeconomic benefits of public utilities

We want that the EPM customers have increasingly a better quality of life. We will work in coverage, quality, and purchasability. Therefore, our goal is that the public utilities bill becomes increasingly lighter in the market basket. Solutions such as prepaid water and energy and programs such as Paga a Tu Medida (Pay According to Your Needs), Unidos por el Agua, and Unidos por el Gas (United for Natural Gas) are part of the dynamics of this strategic focal point of the group.

Focal point 5: optimization of operations

We have different initiatives and projects whose purpose is to make the businesses of the organization much more profitable, in such a way that they give room to better indicators in the financial statements of the group. This focal point includes projects such as operational safety, cybersecurity, loss management, document management, and different water and basic sanitation projects that will be essential throughout this year.

Focal point 6: cultural evolution

The idea of this focal point is to project change on the people of the group to face the different transformations that take place today in the social and corporate environments. Matters including ethics, conversation, diversity, and conscious leadership are foundations of a process integrating all the focal points of the organization through culture.

Focal point 7: Ituango hydroelectric project

What this focal point proposes is the challenge of successfully completing the project and commissioning the first generating unit in December 2021. This point takes into account the legal, financial, social, environmental, and technical aspects that must be overcome.

This report is doubtlessly a tribute to those who have made it possible: workers at EPM, the very community that strongly encourages this business management, and those like the former CEO, Jorge Londoño De la Cuesta, and the board of directors that supported his management, who did their best effort to make Grupo EPM move forward, taking on challenges with intelligence and attitude of service.

I express my gratitude to the current board of directors and the mayor of Medellín, Daniel Quintero Calle, for being here with us, holding decisively the compass that will lead us toward the accomplishments of our dreams.

This is a teamwork whose purpose is rather clear: contribute to the harmony of life for a better world.

This report meets the requirements of the Communication on Progress to respond to the EPM's commitment to the Global Compact of informing on the disclosure and application 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.



Álvaro Guillermo Rendón López
EPM's CEO

Strategic planning

In 2019, the strategic planning components were adjusted to place the purpose as the core element and integrate the sustainability model as a fundamental basis to build each strategic planning component.

Including the sustainability model in the corporate strategic planning of Grupo EPM in an explicit way strengthens the vision of a business management model that understands that economic growth should respect the social and environmental limits. Furthermore, the sustainability vision of Grupo EPM conceives the protection of and value creation for companies and the society from the core business activities, distancing itself from the philanthropic or welfarist approaches and without replacing the state or any other actor in their responsibilities.



The strategic planning consists of four components: purpose, identity, action, and results, which are shown in the following chart:



The **purpose** becomes the core of our corporate action; answers the question of **why we exist**; and represents the highest sense of contribution that Grupo EPM expects to give. It was defined with the participation of all the business group companies, involving all the organizational levels, based on the Theory U by Otto Scharmer, and through conversations and workshops. The process allowed us to go from an egosystemic approach to an ecosystemic approach, which implies a wider vision of the impacts and relationships of the organization.

The **purpose** of Grupo EPM is to **contribute to the harmony of life for a better world**. It is an invitation to live in harmony with oneself and with internal and external interactions and to recognize that we are one part that, along with others, contributes to a whole that is built on differences.

The **identity** refers to **what we decided to be** and covers the elements that describe our corporate philosophy. It includes the code of ethics of the group, which, in turn, comprises the principles of action and values.

The **five principles of action** that guide the group are to fulfill our commitments, have the society as our main interest, give a fair treatment, care for the environment and resources, and serve.

The **values** are responsibility, transparency, and warmth.



The **action** defines **what and how we decide** to accomplish our purpose in line with our identity. This component encompasses the corporate strategy, the competitive strategy, and the support strategies.

The **corporate strategy** is defined as the optimization of operations and growth following corporate social responsibility criteria.

The essential statement of the **competitive strategy** is “businesses creating value for their stakeholders” and it is expressed in each business as described below:

- Power generation: make the business profitable through safe operations and incorporate nonconventional renewable energies through strategic alliances.
- Power transmission: make the business profitable through safe operations.
- Power distribution: make the business profitable through safe operations, grow organically in the current markets, and incorporate solutions of energy distributed and for new uses, through strategic alliances.
- Natural gas: make the business profitable through safe operations and grow organically in the current markets.
- Water supply and wastewater management: make the business profitable through safe operations and grow organically in the current markets.
- Solid waste management: make the business profitable through safe operations, grow organically in the current markets, and incorporate new lines of business through strategic alliances.

The **support strategies** correspond to the actions developed in each functional area of the organization to provide the businesses with competitive power according to the business models and plans of each of them.

The **results** guide us to **where we decided to get**. They are the achievements expected regarding the Sustainable Development Goals (SDGs); the big hairy audacious goal (BHAG) in social, environmental, and financial terms; and the strategic goals.

Services to our customers and users

Engagement with our customers and users

— Improvement of the customer and user experience

We set the following challenges that ensure a better experience: strengthen the customer experience model that we have implemented since 2014, create initiatives to *minimize customer effort* in the interactions through the customer service channels, and, finally, get closer to the customers and communities to get to know them, understand them, and teach them the *good use and benefit of public utilities*.

— Strengthening of the customer and user experience model

Considering the average of customer experience results in companies, negative critical incidents should not exceed 22%. In the last assessment conducted in 2019, EPM obtained 21.3% negative experiences.

Through the company Ipsos Napoleón Franco, EPM conducted five assessments by applying 20 thousand surveys. It is worth highlighting that the recommendation index reached by EPM in 2019 is 54.4, above the reference of 50 in the market. Likewise, 21.3% of customers and users (one point below the reference) expressed that they experienced one negative critical incident with any of the transactions assessed. Due to this, their dissatisfactions were managed with the areas involved.

With the purpose of boosting the actions that create value to the customers and redesigning the moments that negatively impact their experience to transform them into pleasant moments, the processes and formalities for the connection to the energy and water supply services were simplified, eliminating 40% of the requirements; the connection to the natural gas service was standardized; and the options to simplify the demonstration of the connection to the property were increased from two to 10. In addition, an agreement was entered into with the National Registrar's Office of Civil Status to perform biometric validation (eliminating copy of identification document requirements) and share information online. Finally, tests with customers were conducted to perceive their experience with the new initiatives before launching them to the market, and support and orientation concerning the improvement of the experience were provided through different service channels.

— Initiatives oriented to reduce customer and user effort

During the year, EPM received around six million transactions nationwide through all the channels, of which 4% were through digital media and self-service modules, such as online requests, complaints, and claims; the EPM application; and the Ema chatbot.

Aiming to migrate commercial operations to a digital management by leveraging technology, in order to improve performance and customer experience, during 2019, progress was made with the following:

Development of the electronic form for construction companies: five water supply transactions are in process of stabilization.

Improvement of the website functions: with the purpose of improving the customer interaction with the website, some functionalities were improved, so that customers can send their requests, complaints, and claims and query formalities and services.

Commissioning of an artificial intelligence system (EMA chatbot): the chatbot provides online service to customers and users in three transactions, namely query of amounts payable, request of bill copies, and query of formalities. In total, 101,000 interactions were processed.

Creation of the robotic process automation (RPA) experience center for Grupo EPM: by leveraging technology, the center increases the efficiency of some commercial activities, through the standardization of repetitive and numerous tasks, to simplify and speed up the customer request processes.

Addition of new functionalities to the mobile application: they include the request of turns in office lines, the query of office locations, and the information on the requirements for the most frequent transactions. The application has been downloaded to 28,000 devices.

Development of the interactive bill (QR code scanning) and submission of the bill through WhatsApp and the Factura Web platform: 317,000 customers and users are subscribed to online billing.

Execution of the developments to reduce waiting times: they include solutions such as thermal printing, electronic signature, fingerprint biometrics, e-mail submission of assisted-customer certificates, online document storage, and document encryption.

Standardization of the commercial customer-service system at the four national energy affiliates: this ensures the regulatory compliance with the due process, the income stream of the companies, and the minimization of penalty risks, overcoming technological obsolescence and reinforcing the standardization of processes among affiliates.

Installation of eight Puntos Fáciles (Easy Points) in the metropolitan area of Valle de Aburrá: this allows customers and users to address queries, complete formalities, and make payments at the closest point. The points were installed at the EPM offices in the Miguel de Aguinaga building (downtown Medellín) and in the municipalities of Bello and Envigado; at the Parque de Berrío metro station; at the Más Cerca (service offices) of the Belén and Castilla neighborhoods; at Parque de los Deseos, and at the Pablo Tobón Uribe Hospital.

— Customer and community training

As Grupo EPM at the national level, during 2019, we interacted with more than **526,000** people from all the regions of the country where we are present, of which **255,000** correspond to EPM. We carried out 160,000 training activities nationwide, 125,000 corresponding to EPM, and we got closer to the community by means of different engagement programs such as Cercanía (Closeness) and Por Ti, Estamos Ahí (We Are There for You), the creation of a network of community leaders, the work with the educational community and the Cuidamundos (World's Protector) program, the visits to the power plants, and, in general, the development of workshops, working groups, roundtables, and home visits

The engagement with customers and the community is achieved thanks to educational communication at levels of awareness-raising, information, and training on basic aspects of the provision and safe and efficient use of residential public utilities.

Through the **Por Ti, Estamos Ahí** program, 71 institutional events were held, benefiting 99,750 people nationwide. These activities (home visits, conversations, roundtables, workshops, and other educational engagement events) allowed us to talk with the communities about different topics associated with the provision of residential public utilities.



With the purpose of contributing to a better understanding of the bill, the fees, the process of meter reading, among others, we had conversations with 147,000 people nationwide, contacted through the **Lectura a Tu Medida** (Reading at Your Measure) program.

Through the **Cuidamundos** program, EPM and the national affiliates interacted with 72,460 children, young people, and adults of the educational sector in 830 activities, fostering the care for the environment, the prevention of electrical hazards, and the appropriate use of the natural services and resources. As for the work associated with education on **safe use**, we carried out several activities with the participation of 30,000 people in Antioquia. Of them, we emphasize the drawing contest on prevention of electrical hazards that took place in 33 territories and the development of the second version of Especialidad Scout (Scout Specialty), in which 54 groups and around 3,000 scouts designed and implemented, with their distinctive enthusiasm and commitment, communication strategies to promote the safe use of energy and the prevention of electrical hazards.

As part of these educational activities, we made progress with the **social and educational management plan of the Unidos por el Agua (United for Water) program**; during the year, we interacted with 74,000 people from the neighborhoods benefited from the program to generate reliable relationships with the leaders and communities from the territories, facilitate the technical development of the works, empower the community to use, care for, and respect the new infrastructure, and commit them to efficiently use the resource and timely pay the bill.

Líderes Amigos de EPM (Friend Leaders of EPM) also stands out as a strategy that favors conversation groups as a basis to create strong reliable relationships. This has allowed the national companies of the group to hold permanent meetings with the community representatives. In total, during the year, 10,000 people participated in these meetings among leaders and representatives of the communities.

With the aim of recovering the trust of the communities downstream the Ituango hydroelectric project, multiple engagement and group strategies, including discussion sessions, workshops, and home visits, were developed, through which we were able to establish close dialogs with 43,000 inhabitants of the area of influence of this work.

Likewise, programs such as **government seminars, business approach sessions, and visits to EPM power plants** were developed with employees and executives of the companies and institutions belonging to the segments of the government, companies, and large customers, to which EPM provides with its services and with which it consolidated a strategic relationship as an ally. With these activities, we reached 7,600 public servants and employees of companies and large customers of Grupo EPM.

— Somos program

The Somos program covers 891,500 customers and users, of which 246,300 have active credits, for a total of COP 132,800 million financed.

Thanks to the 5% growth in the number of customers and users with credits, compared to the previous year, the Somos program has benefited **246,300 families**, of which 88% belong to strata 1, 2, and 3. Sales amounted to **COP 132,700 million** as a result of the commercial operations and the different activities carried out with strategic allies of the program (Éxito, Jumbo, Haceb, Pisende, Samsung, among others) and the more than 260 commercial allies in Antioquia that have around 500 points of sale.

The program contributed resources amounting to COP 7,500 million to the company's sustainability. The company will continue strengthening the program with the national expansion plan and will implement the standardization of the product in the energy affiliates as of 2020.

Universalization of public utilities

At the national level, Grupo EPM has provided the access and availability of public utilities through commercial and infrastructure solutions. It reached 1,421,027 customers and users in water supply in Colombia; 1,362,670 in wastewater management in Colombia; 868,335 in solid waste management in Medellín; 4,584,486 in energy in Colombia; and 1,260,940 in natural gas in Antioquia.

These results show that, in Colombia, Grupo EPM accomplished a universalization of public utilities of 96.75% in water supply, 93.5% in wastewater management, 99.28% in solid waste management, 96.43% in energy, and 85.84% in natural gas.

In 2019, EPM connected **38,874** customers and users to the water supply service and **40,338** to the wastewater management service, for a total of 1,266,504 and 1,233,212 customers and users, respectively; this reflects a 3% annual growth in both services. This growth is the result of the business natural increase and the Unidos por el Agua (United for Water) program actions.

The company attracted **95,511** customers and users to the energy service, for a total of 2,508,552 customers and users, which shows a 3% annual growth, leveraging the Habitación Viviendas (Habitable Homes), Electrificación Rural (Rural Electrification), and Energía Prepago (Prepaid Energy) programs. This figure also includes the connection of 4,157 homes located in places with technical or legal limitations for the service provision.



Prepaid energy

The company connected **67,040** customers and users to the natural gas service in Antioquia, for a total of 1,260,940, which shows a 5% annual growth. In 2019, EPM created the Unidos por el Gas (United for Natural Gas) program, whose purpose was to apply for a subsidy granted by the Municipality of Medellín for the charges of connecting homes belonging to strata 1, 2, and 3 to the natural gas network. 12,004 homes were connected, exceeding the goal of 624.

The expansion outside of Valle de Aburrá stands out. During the four years, other 19 towns of Antioquia were connected to the service: Belmira, San José de la Montaña, Toledo, El Valle (small town in Toledo), Dabeiba, San Vicente, Concepción, La Clarita (small town in Amagá), La Mina (small town in Amagá), Angelópolis, La Estación (small town in Angelópolis), San Roque, Santo Domingo, Versailles (small town in Santo Domingo), Caracolí, Maceo, Remedios, Palermo (small town in Támesis), and Nueva Colonia (small town in the Urabá region). In addition, EPM made an effort to accomplish the connection of 3,333 homes in areas enabled by the Municipality of Medellín, which improves the quality of life of these communities.

Note: the total of customers and users is the homes that have the residential public utilities available for their enjoyment.

— Unserved population

In 2019, we connected 37,171 customers and users to the energy, natural gas, water supply, and wastewater services in populations settled down in places with technical or legal limitations for providing the service, such as those located in high-risk areas or outside of the perimeters of the land use plans. It is 47% more than the previous year, increase that leveraged mainly the connections accomplished through the Unidos por el Agua (United for Water) program.

We emphasize the communication and collaborative and coordinated work between the different EPM teams with the administrations and other municipal institutions to enable and obtain licenses in difficult-clearance areas, including places with invasions, high risk, and law and order problems.

In the Unidos por el Agua program, we highlight the collaborative work with the inhabitants of the territories impacted and the community leaders, so that they can be active actors in the development of the intervention, feel the infrastructure installed as their own and, thus contribute to its sustainability.

In the water supply service, in 2016, EPM began to identify and quantify the population of Medellín that did not enjoy the public utilities of water supply and sewerage. Therefore, the company decided to conduct a characterization to find solution alternatives, which were grouped in the Unidos por el Agua program. This process was completed in 2019, accomplishing 103% of the goal, which was 40,200 homes with the service.

In the energy connections, we highlight the strategic contribution of discussing with the municipal administrations the problems of each sector, which evidenced the electrical and earthmoving hazards. Some provisional interventions were proposed to minimize the risks for these communities.

Similarly, in the natural gas connections, a collaborative and coordinated work was developed between the Medellín Mayor's Office and the areas of Connection to Natural Gas and Marketing and Sales of EPM to promptly provide technical and commercial solutions to difficult-clearance areas.

— Unidos por el Agua (United for Water)

Unidos por el Agua is a program developed in collaboration with the Municipality of Medellín, the Social Institute for Housing and Habitat of Medellín (Isvimed), and Empresa de Desarrollo Urbano (EDU); it aims to improve the quality of life of 40,200 families located in Medellín by improving the water supply and sewerage coverage, providing the service with high-quality standards, encouraging the development of the communities, building a water care culture, and mitigating the geological risk in some areas.

In 2019, EPM connected 18,323 homes to the water supply and/or sewerage services, for a cumulative total, since 2016, of 41,391, which exceeds the goal set of 40,200. The sectors benefited include La Honda, La Cruz, Versalles II, Bello Oriente, Brisas del Jardín, Brisas del Edén, San José la Cima, Unión de Cristo, Esfuerzos de Paz 1, Esfuerzos de Paz 2, La Luz del Mundo, Altavista, Santo Domingo Savio (La Torre), Nuevos Conquistadores, La Salle, Colinas de Enciso, El Salado, El Socorro, La Loma, and Brisas del Jardín, among others.

This program helped to boost the development of the communities by generating more than 1,096 jobs per year, of which 51% correspond to people from the previously defined areas of influence. In addition, the construction of 8 km of sewerage networks in the city of Medellín helped to reduce wastewater discharges to more than 10 streams.



Unidos por el Agua

— Program of water supply in rural areas

Wayúu Painwajirawaa Aasaawuin, the first association of indigenous users, was created for the operation of the public standpipe supply system in the municipality of Manaure, La Guajira.

The following advances stand out for 2019:

- Completion of the Manaure project infrastructure (osmosis plant, public standpipes, and waterless sanitary units) and the corresponding delivery to the municipality of Manaure, in the department of La Guajira.
- Delivery of one 10-cubic-meter tank car, one 150-cubic-centimeter motorcycle, 3,600 five-gallon containers, and resources for the public standpipes to the municipality of Manaure. These goods are part of the pilot project developed in the rural area of the municipality of Manaure.
- Completion of the Puerto Caicedo project. The construction of 600 toilet units was completed, benefiting 3,000 inhabitants of the scattered rural area.
- Contracting and completion of the Zetaquirá project. The construction of 40 toilet units was completed, benefiting 160 inhabitants of seven rural settlements.
- Reformulation and negotiation process with the auditor contractor of the Sabanalarga project, which allowed for the resumption of the works in November and their completion in January, 2020.

— Unidos por el Gas (United for Natural Gas)

This program, defined through an inter-administrative agreement signed with the Municipality of Medellín, allowed for the provision of subsidies corresponding to 100% of the natural gas connection charges to homes in strata 1, 2, and 3, located in the city of Medellín. It started on June 20, 2019, and its total resources amount to COP 7,300 million; as of December, COP 7,210 million had been invested. The connection percentage was 15% in stratum 1; 40% in stratum 2; and 45% in stratum 3.

As of December 2019, the subsidy had benefited 12,004 families, mainly in the areas of Robledo, Buenos Aires, San Javier, Manrique, Belén, Villa Hermosa, Doce de Octubre, Castilla, Aranjuez, Popular, San Antonio de Prado, Santa Cruz, Guayabal, La Candelaria, La América, Laureles Estadio, and El Poblado.

— Electrificación rural (Rural Electrification)

The different programs and projects of rural electrification that are being implemented by the energy companies of Grupo EPM are one of the most significant examples of social innovation that contribute to improving the quality of life of the community and increase the opportunities for inclusion and equity.

The importance of the program in each company is reflected on the investment in infrastructure that has meant an amount of COP 34,704 million for EPM in 2019.



Rural electrification

The work of ESSA stands out, since it invested COP 17,254 million in infrastructure in 2019 with the Iluminemos Santander (Let's Light Up Santander) program, which began in 2015. This is how the most isolated rural communities have had access to the electrical energy to thrive. The program is implemented in CHEC under the name of CHEC Ilumina el Campo (CHEC Illuminates the Countryside).

For all its national affiliates, Grupo EPM obtained in 2018 the approval by the Mining and Energy Planning Unit (abbreviated UPME as per its acronym in Spanish) for the execution in 2019 of the Coverage Expansion Plan of the Network Operator (abbreviated PECOR as per its acronym in Spanish). EPM presented a plan for 4,030 homes and it was approved for 3,184, which became the goal of the Electrificación Rural program for 2019. The plan for the remaining 846 should be executed with isolated solutions that become the goal for the EPM coverage project, with photovoltaic energy solutions that, as a result, will lead to make progress with regulatory and technical management.

Two of the international affiliates of Grupo EPM made progress with the rural electrification initiative. Delsur stands out with 590 homes electrified and an investment in infrastructure of COP 1,383 million.

Rural electrification - National companies of Grupo EPM	
	Year 2019
EPM	
Homes electrified	6,074
People benefited	18,829
CHEC	
Homes electrified	80
People benefited	248
ESSA	
Homes electrified	5,116
People benefited	15,860
CENS	
Homes electrified	121
People benefited	375
Total homes electrified	11,391
Total people benefited	35,312

Rural electrification - International companies of Grupo EPM	
	Year 2019
Delsur	
Homes electrified	590
People benefited	2,360
Eegsa	
Homes electrified	181
People benefited	815
Total homes electrified	771
Total people benefited	3,175

Source: Vice Presidency of Power Transmission and Distribution.

Figures as of December 2019. The people benefited correspond to the estimation of people per home electrified.

— Servicios Prepago y Paga a tu medida (Pay According to Your Needs)

Regarding the options and solutions available for customers and users to maintain the possibility of consuming the residential public utilities of EPM and, thus, the company can satisfy their tastes, preferences, and needs, in agreement with its capabilities and willingness, in 2019, Grupo EPM attracted 69,878 customers and users in Colombia to the offers of prepaid services and Paga a Tu Medida, of which 52,931 correspond to customers of EPM.

Specifically, 2,834 customers and users were connected to prepaid water supply. Since the beginning of the offer, the group has managed to attract 25,211 customers and users. As for prepaid energy, 17,527 customers and users were attracted by EPM; 3,885, by CENS; and 5,335, by ESSA. Since the beginning of the offer, the group has managed to attract 317,618 customers and users.

Paga a Tu Medida attracted 32,570 customers and users in EPM, 1,347 in CENS, and 6,380 in ESSA. Since the beginning of the offer, the group has managed to attract 209,437 customers and users.

The company has maintained and provided the enjoyment of the **prepaid water supply** service in the 10 municipalities of the metropolitan area of Valle de Aburrá, with a monthly average consumption of 8 m³, in accordance with the needs and abilities to pay of the customers that are connected to this modality. Likewise, with the purpose of benefiting more users, the expansion of the target market (to users with suspended services) was approved and it will begin in 2020.

As for **prepaid energy**, adjustments to the offer were made to enable customers and users from new target markets and include other connection statuses, as well as to strengthen the offer intervention in below-average areas throughout the regions. This allows for the improvement and simplification of the management of the nontechnical losses caused by illegal connections to the distribution networks. In addition, some channels for top-ups were strengthened including Gana and UNE pay phones, in which the customers can top up COP 2,000 on credit using their cell phones or make micro top-ups on credit using UNE pay phones and pay in the next top-up at Gana points. In average, users top up COP 6,000 six times a month, for a consumption per installation of 114 kWh/month.



Prepaid energy

— Aguas del Atrato (Atrato Waters)

We offer 24-hour continuity to all the customers and users connected to the water supply service in Quibdó, the capital of the department of Chocó.

We continued the agreement for the operation of the services in Quibdó, which has allowed us to improve the quality and process control, keeping the water quality risk index (WQRI) below the maximum limits allowed.

At the request of the Colombian government, Grupo EPM is operating the water supply, sewerage, and waste collection services in the urban area of Quibdó, through the affiliated company Aguas Nacionales. To that end, an inter-administrative collaboration agreement was entered into between EPM and Empresas Públicas de Quibdó E.S.P., under liquidation, from 2008 to 2015, which has been extended by the parties through mutual agreement.

The following achievements took place during 2019:

- Average 24-hour daily continuity for all users connected to the water supply service.
- Collection of COP 5,040 million in 2019, 17% more than in 2018 when COP 4,319 million was collected.
- Water quality assurance with a WQRI of 0.59%, which meets the risk level defined by the Ministry of Health and Social Protection through Decree 1575 of 2007. We highlight that, in 2018, the WQRI was 1.16%, which represents a 49% reduction.
- No positive administrative silences during 2019.



— In Urabá

Considering the economic strengthening brought by the port and road-infrastructure development, its strategic location, the sound public and private integration process that leads nowadays the effort for territorial transformation, the accelerated population growth, and that it is a point of convergence between Antioquia and the Caribbean, the Urabá region is today a priority of the regional development set by Grupo EPM. With the development of the infrastructure plans, Urabá will experience an increase of up to 100 basic points in the economic growth rate. The commercial projection of EPM for 2019-2028 shows that the energy, water supply, sewerage, and natural gas services will have increases of 10%, 12.7%, 23.3%, and 19%, respectively, which is more than what is planned today.

Since 2017, upon the creation of the regional management and the commissioning of the Model of Territorial Integration (abbreviated MIT as per its acronym in Spanish), EPM consolidated a strong and leadership-based institutional presence in Urabá.

Investments

The road map is defined in the MIT to ensure the provision of public utilities in the municipalities covered. In the short term, the affiliated company Aguas Regionales EPM built a well in Apartadó and in the small town El Reposo to offset the supply in summer seasons. In the long term, with the outcome of the new source of supply in the León River, near Bocas de Chigorodó, the contracting process for the feasibility study will start with resources amounting to COP 5,000 million provided by EPM. As for the sanitation roadmap, five plots have been acquired and three designs are ready for the wastewater treatment plants of Turbo, Apartadó, and Carepa; the treatment plants of Chigorodó and Mutatá will be designed in 2020. These projects will be submitted to the Colombian Ministry of Housing to request resources amounting to COP 82,031 million.

This year, COP 41,221 million was invested in energy, natural gas, water supply, and sanitation in Urabá.

A total of COP 19,832 million was invested in the **energy** service to support the growing and future demand, foreseeing the charges of development as a result of the port operation, which is added to infrastructure and operational investments to increase reliability in the region. We strengthened the quality and reliability in the region by commissioning the expansion of capacity of the Urabá 220/110/44 kV substation, the standardization of the Carepa 44/13.2 kV substation, and the expansion of capacity of the Arboletes 44/13.2 kV substation. In addition, the most relevant project that will support this port and business development is the 110-kV line that will connect the substations located in Turbo, Nueva Colonia, and Apartadó; its progress is 40.95%. Thanks to the negotiation from the MIT, the municipalities of Turbo and Apartadó and the banana industry granted the licenses allowing the installation of the power line that will be operational in 2021.

An amount of COP 1,821 million was invested in the **natural gas** service to increase customers in the nine municipalities of the region; the impact focused on Apartadó (33%), Turbo (23%), and Chigorodó (17%). The resources were invested in the connection of new residential complexes to natural gas, specifically, in Nueva Colonia—small town in Turbo—and allowed the delivery of this service to 355 families as of December. Moreover, we connected the Colombian National Navy facilities in Turbo to natural gas and negotiations are in progress to install the service in the small town Zungo Embarcadero, the Unibán industrial area, and the Frubatec-Banacol project in Nueva Colonia. Likewise, negotiations are taking place to expand the portfolio in the ports and the free zone of the region. As for the commercial sector, 97 business establishments, such as restaurants, hotels, and stores, were connected to the natural gas service.

Furthermore, in the **water and sanitation** service, we prioritized the design of projects for the management of resources contributed under condition, to close the gap and increase the continuity and coverage without affecting the fees, important aspect when more than 77% of users belong to strata 1 and 2. The own amount of COP 19,567 million was invested; additionally, there are three projects under implementation through the Obras por Impuestos (Works instead of Taxes) modality, with resources from EPM, Aguas Regionales, and EDEQ: construction of La Lucila II storage tank of the water supply system for the sectors 1 and 2 in Turbo, whose progress is 14.6%; expansion of the sewerage networks of Barrio Obrero in Turbo, whose progress is 48%; and optimization of the Apartadó water supply system, whose progress is 46.41%. These investments do not affect the fee for users. Likewise, the commissioning of the overhead water supply was complemented with the installation of more than 6 km of overhead networks and 700 m of footpaths in Turbo. This favored the connection of more than 500 users in a sector including the Colombian National Army and the districts Pescador 1, Pescador 2, and El Progreso, with an investment of more than COP 4,000 million.

The contribution of EPM for COP 5,000 million to finance the feasibility stage of the Nueva Fuente project is emphasized. This project will enable the provision of services in the Carepa-Apartadó-Turbo corridor as an alternative in the long term planning to offer water resources and cover the needs of the region.

Investments with contribution under condition in water supply and sewerage

A total of 77% of users from the five municipalities and two small towns of the Urabá region where the company provides the water supply and sanitation services belong to strata 1 and 2. Due to the tax and socioeconomic conditions of these municipal administrations, the subsidies granted are fewer than in other municipalities of the country, which complicates the investment of own resources, since this would affect the fees that families with complex conditions pay. Therefore, the Aguas Regionales project formulation team was created since 2016 to consolidate a process to identify sources to obtain resources, including Obras por Impuestos.

Thanks to the management of resources from contributions under condition, the company completed important works in 2019, including the optimization of 52 km of water supply networks in the municipality of Turbo, which favors the conditions to improve the quality of life of 1,580 families and positively impacts the continuity and coverage indicators of Aguas Regionales EPM.

As for the sanitation service, we emphasize the project benefiting 256 families in district Juan XXIII in the municipality of Turbo.

In 2019, the company continued executing projects negotiated with resources from contributions under condition and started the three Obras por Impuestos projects. These investments under execution amount to COP 52,760 million, of which COP 28,488 million comes from Obras por Impuestos resources and is intended to replace water supply networks in Apartadó and build the La Lucilla II tank and develop the sewerage works in Barrio Obrero in Turbo. The projects are financed with taxes from EPM, EDEQ, and Aguas Regionales EPM.

The management of resources from contributions under condition has provided the investments to build a well for water supply in Apartadó. This project—with resources from the nation—was executed and made operational in 2019, ensuring that the service was not interrupted due to shortage during the dry season or to damages in the water intake during the flood of the Apartadó River.

Furthermore, COP 2,605 million provided by OCAD PAZ (institution whose purpose is to approve investment projects concerning the implementation of the final agreement to end the conflict) was made viable for the construction of water supply and sewerage networks in the sector of Nuevo Horizonte in Mutatá; likewise, COP 6,063 million (still pending for allocation) was made viable for the third stage of the wastewater collector in Carepa.

Finally, three projects amounting to COP 82,031 million to be developed at the wastewater treatment plants were filed and are pending for viability and allocation of resources.

Coverage

The efforts focused on activities to attract customers, such as public utilities committees, actions on the power loss management process, natural gas customer retention, educational campaigns, sanitation gap reduction, and delivery of community sewerage systems.

In 2019, EPM succeeded in solving the water supply problem of a community that, for more than 30 years, was always told that having access to this service was not possible because it was located on unstable ground, namely a mangrove area. The company proved that it was possible with overhead water supply and benefited 500 families in the districts Pescador 1, Pescador 2, and El Progreso in Turbo. As a result, the Inter-American Development Bank described it as one of the three most innovative initiatives in Latin America and the Caribbean

Regarding the energy service, the company maintained the urban coverage at 100% and the rural coverage at 96%, which positively impacts reliability. As for loss management, integrated with the Urabá EPM Management, 1,294 installations were legalized in 2019, which is equivalent to recovering 665,300 KWh, namely COP 347 million (at full price), thanks to the management with the Turbo, Apartadó, Carepa, and Chigorodó mayor's offices.

In the natural gas service, the penetration indicator went from 75% in 2018 to 80% in 2019, mainly impacting Arboletes with a 12% increase (from 68% to 80%) and San Pedro de Urabá with a 7% increase (from 73% to 80%). The most important actions in which we made progress took place in San Pedro de Urabá, with the network expansion and the total connection of homes in the district Urabá; in Apartadó, with the planning licenses and the consolidation of commercial efforts to connect 10 residential complexes; in Arboletes, with the connection of the districts San Lorenzo and La Inmaculada; in Turbo, with the connection to natural gas of the Colombian National Navy project stage I and, in the small town Cururlao, the districts Buguita and Villa del Carmen and the connection of the small town Nueva Colonia to natural gas through a pressure reducing station, alternative selected considering the limitations to access the distribution network.

In the areas where the company provides the water supply service, the most representative growth occurred in Turbo, with a 19% increase (from 68% to 87%), upon the commissioning of the project on optimization and expansion of secondary distribution networks, the overhead water supply, and other projects to expand networks by sections. As for the sewerage service, Turbo also had a significant coverage increase of 10% (from 34% to 44%).

The water is potable and meets the regulatory parameters and the water quality risk index.

Model of Territorial Integration

Colciencias, fundamental actor and leader of public policies for science, technology, innovation, and entrepreneurship (STIE), ratified the Urabá University-Industry-Government-Society Committee (abbreviated CUEES Urabá as per its acronym in Spanish) as a reference for the department and the country.

During the Grupo EPM chairpersonship, the achievements include the construction of reliability, the STIE Plan for 2032 (innovative region), the consolidation of the Network of Strategic Allies (abbreviated RAE as per its acronym in Spanish) for the territory-focused development plan (TFDP), the allocation of resources from the Colombian Presidential Agency of International Cooperation, and the strengthening of the citizenship with different academic and sectoral events for the engagement with stakeholders.

The notable accomplishments in the most significant scenarios for the MIT implementation include:

CUEES Urabá, where Grupo EPM holds the chairpersonship and which consolidates itself as an agency that thinks, connects, and transforms the Urabá region. The committee has led diverse initiatives such as the STIE Plan for 2032 and has built valuable regional integration actions, which makes the CUEES Urabá a model for the country. Moreover, the RAE, space that gains strength thanks to the CUEES Urabá activities, made important contributions for the construction of the TFDP. In 2019, considering the efforts for the decentralization after seven years of existence (of which EPM has held the chairpersonship for two), the CUEES Urabá has held meetings in places other than Apartadó, with excellent outcomes and favorable reception of the calls in the municipalities of Carepa, Arboletes, Chigorodó, and Necoclí. Likewise, the company played an essential role during the election period by holding six forums with candidates to the mayor's offices of the Urabá region municipalities and the Antioquia Governor's Office.

Environmental working group with the Corporation for the Sustainable Development of Urabá (Corpourabá). The accomplishments include the approval of offset rulings pending since 2015, promptitude with environmental licenses, information on projects in the area, and monitoring of the Sanitation and Wastewater Management Plan.

Working groups with Puerto Antioquia, Puerto Pisisí, and Darién International Port, key ports to plan how to respond to the demand of the future port activity.

Working Group for Development, Habitat, and Residential Public Utilities of Apartadó with the municipal administration, Camacol Antioquia, Corpourabá, the Colombian Association of Banana Producers, constructors, and developers to synchronize the challenge proposed by the 19 partial plans approved in this municipality of the Urabá region facing the public utilities demand. The working group consolidated the information of the different sectors and studied the models of other cities of the country to integrate this important challenge that will be the reference for other working groups in the municipalities of the region.

— In Eastern Antioquia

For the National Planning Department, Medellín-Rionegro will be one of the 10 hubs of leading cities in the economic development of the country. The municipality of Rionegro aims to create an exporting revolution, leveraging its competitive advantage of being close to the José María Córdova airport, by favoring the possibility of new companies establishing in the region and by strengthening the existing industrial area.

Therefore, Grupo EPM seeks to participate in the sustainable and competitive development of Eastern Antioquia; develop infrastructure projects to comprehensively offer solutions for energy, water supply, natural gas, and other services in its organic and inorganic growth; and provide an action system that enables and harmonizes the financial, social, and environmental results.

Empresa de Aguas del Oriente Antioqueño

The company aims to have an investment plan of COP 18 billion for the next 10 years considering the fee adjustments of 28% in 2018 and of 43% in 2019, which will serve the current service provision area.

- Updating of the fee after 20 years of incorporation of the company.
- Capitalization for COP 2,161 million by the partners in 2019.

Empresas Públicas de Rionegro

- Contracting and execution of the Water Supply and Sewerage Master Plan for COP 4,382 million.
- Reduction of risks due to environmental contingencies.
- Standardization and preparation of the affiliate for the merging with EPM.



Environmental management

Integrated water resources and biodiversity management strategy

The purpose of this strategy is to contribute to the sustainability of Grupo EPM and the territories where it operates, through joint activities with different stakeholders and taking into account the land use plan, the characteristics of the territories, the conservation of ecosystems, the supply and demand, and the risks related to water and biodiversity. Our focus is **water and biodiversity for life and sustainability**.

— Water protection

Grupo EPM contributes to this management strategy directly or in alliance with other stakeholders through initiatives such as the support to public and private protected areas, erosion control, environmental sanitation, environmental management of reservoirs, forest management, restoration, and environmental awareness-raising and monitoring.

These strategies take place in the following hydrographic basins: Porce (including watersheds of the Grande, Aburrá, and Porce-Alto Nechí rivers); Nare (including watersheds of La Fe and the Negro-Nare River); Cauca (including areas of influence of the Ituango hydroelectric project); Chinchiná and other basins in areas of influence of CHEC; some basins supplying Aguas Regionales in Urabá; and other basins in areas of influence of EPM and the transmission and distribution affiliates CENS, ESSA, CHEC, and EDEQ.

During 2019, Grupo EPM supported the protection of 19,618 ha for a cumulative total of 76,505 ha since 2016, contributing directly to the fulfillment of the following Sustainable Development Goals (SDGs): SDG 6, clean water and sanitation; SDG 15, life of terrestrial ecosystems; and SDG 17, partnerships to achieve the goals. Indirectly, this also contributes to other SDGs.

To fulfill the water protection goal, Grupo EPM develops different strategies for water resource protection. The following strategies stand out:

- **Forest conservation** (including support to public and private protected areas and programs of payment for environmental services): in 2019, the contribution covered 1,022 ha for a cumulative total in the 2016-2019 period of 19,945 ha.
- **Restoration and reforestation:** in 2019, the contribution covered 13,800 ha for a cumulative total in the 2016-2019 period of 30,510 ha.
- **Sustainable practices and uses** (including silvopastoral and agroforestry systems, living fences and barriers, good agro-environmental practices, erosion control, and rural basic sanitation systems): in 2019, the contribution covered 1,758 ha for a cumulative total in the 2016-2019 period of 6,972 ha.
- **Environmental offset and new protected areas** (including purchase of lands for offset and new areas for the protection of reservoirs): in 2019, the contribution covered 3,038 ha for a cumulative total in the 2016-2019 period of 16,834 ha.
- In addition, the group has implemented strategies of forest conservation and payment for environmental services in other basins of interest for a cumulative total in the 2016-2019 period of 2,244 ha.

The most relevant programs and initiatives include:

- Forestry development program of EPM, through which over 5 million seedlings were produced in the 2015-2019 period to be provided to the communities and owners of properties located in the watersheds supplying the organization's reservoirs. This plant material is used in the protection of riverbanks, living fences, and restoration and improvement of forests.



Forestry development

- Strategy implemented of payment for environmental services to 1,032 rural families to protect more than 12,000 ha of forest in hydrographic basins of interest to EPM, the affiliated company Aguas Regionales, and the power transmission and distribution affiliated companies of the business group.
- Alliances and agreements of EPM with other actors such as the Regional Autonomous Corporation of Central Antioquia (Corantioquia), Regional Autonomous Corporation of the Negro and Nare Rivers Basins (Cornare), Corporation for the Sustainable Development of Urabá (Corpourabá), Cuenca Verde Corporation, United Nations Development Programme, Antioquia Governor's Office, municipalities, and universities to develop actions for conservation, restoration, reforestation, sustainable land use and practices, payment for environmental services, and contribution to the declaration of protected areas of interest to the companies.

Moreover, Grupo EPM owns more than 64,000 ha of forest in protected areas of its systems and reservoirs (56,910 ha of forest and natural ecosystems and 7,130 ha of forest plantations). The operating facilities owned by Grupo EPM are in 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 the loss or alteration of their habitats, pollution of the environment, or overexploitation.

— **Aburrá-Medellín River Sanitation and Wastewater Management Plan**

For 50 years, EPM has been committed to finding solutions to depollute the Medellín River and its tributary streams, with the purpose of contributing to improve the status of this natural resource, through an effective and efficient sewerage service that benefits significantly the metropolitan area of Valle de Aburrá.

- The company has an accumulated investment since 2016 amounting to COP 594,273 million for the projects included in the Sanitation and Wastewater Management Plan (SWMP), such as the Aguas Claras wastewater treatment plant (WWTP), the modernization of the San Fernando WWTP, Centro Parrilla (replacement and modernization of networks in Medellín downtown), Cuencas La Iguañá-La García (La Iguañá-La García Basins), Interceptor Sur (South Interceptor), the renewal of collectors, Otras Cuencas (Other Basins), and Cuencas Rodas, Piedras Blancas y El Salado (Rodas Piedras Blancas, and El Salado Basins).
 - The company collects 207 wastewater discharges.
- The water supply and sewerage networks and the Centro Parrilla express collector become operational.
- The modernization and expansion projects of the San Fernando WWTP become operational.

Main progress actions and achievements of the four-year period

- An accumulated investment of COP 594,273 million for the 2016-2019 period, allocated to the projects of the SWMP. During 2019, the investments amounted to COP 45,897 million.
- Collection of 207 wastewater discharges divided in the following projects: Otras Cuencas (76), Centro Parrilla (107), Cuencas La Iguaña-La García (60), and Cuencas Rodas, Piedras Blancas y El Salado (27). Of the total discharges, 24 correspond to the year 2019.
- Commissioning of the water supply and sewerage networks and the Centro Parrilla express collector.
- Commissioning of the modernization and expansion projects of the San Fernando WWTP. Among other benefits, this improved the reliability indexes and contributed to the reduction of operating costs.
- Stabilization, in 2019, and operation of the Aguas Claras WWTP, ensuring the quality of the effluents, in accordance with the regulatory parameters, after achieving the stabilization of the biological processes in the following years.

**Climate strategy of Grupo EPM**

The climate strategy objective of Grupo EPM is to achieve resilient and carbon-efficient businesses as of 2025, by managing greenhouse gas (GHG) emissions, analyzing and managing risks associated with climate variables, and comprehensively managing water resources and biodiversity.

All the efforts made by Grupo EPM as part of its climate strategy are proof of materialization of concrete actions that it has taken towards the accomplishment of the sustainable development goal 13, action for the climate, whose purpose is to adopt urgent measures to combat climate change and its impacts.

— Strategy management

Seeking a carbon neutral operation as of 2025, Grupo EPM contributes to the commitment of Colombia in the 2015 Paris Agreement to reducing 20% of its greenhouse gas (GHG) emissions by 2030.

With the purpose of achieving a **carbon neutral operation as of 2025**, the carbon footprint or GHG emissions inventory (scopes 1 and 2)¹ is estimated in accordance with *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard*, known as the GHG Protocol. The 2019 inventory will be available as of April, since the calculations take place during the first four months of the following year.

As part of the 2012-2018 climate change strategy, EPM committed to keeping its emission factor below the factor of the National Interconnected System, which has been achieved from 2016 to 2018.

Currently, EPM verifies the emission reduction obtained by the operation of the previous year, as a result of the emission reduction projects registered before different international standards, in order to make them available for the different offset or commercialization purposes in the national or international markets. In 2019, the company conducted the first five-year verification of the Reducing Emissions from Deforestation and Forest Degradation (REDD+) project, after its registration in 2013, and accomplished the renewal of the third and last credit period of the Jepírachi wind park and the La Vuelta and La Herradura small power stations.

¹ Scope 1 emissions (direct emissions). They include the emissions from the sources owned or controlled by the company, as well as the emissions from vehicles of the company's fleet, the emissions from steam or boilers, and the fugitive emissions from the company's air conditioners, ducts, or systems.

Scope 2 emissions (indirect emissions). They include the emissions from the electrical consumption and those from heat, steam, and refrigeration sources that are acquired externally.

The carbon neutral operation of Grupo EPM can be achieved through generation projects that meet the registry standards, through the purchase of third-party certificates, through certified emission reductions of other initiatives such as sustainable mobility, through power generation from nonconventional renewable sources, or through energy efficiency programs, among others.

EPM has opportunities to commercialize, with other companies of the country, the carbon credits currently available. In August 2019, it held an auction for the 550,000 emission reduction certificates, available as a result of the operation at the La Vuelta and La Herradura small power stations from 2010 to 2017, which generated revenue for COP 8,415 million.

As of 2019, a total of 2,467,480 green energy certificates or renewable energy certificates from Jepírachi, La Vuelta, La Herradura, and Porce III have been issued, of which 2,370,806 have been redeemed; this represents an approximate revenue of COP 4,204 million, which will be reinvested for the development of new projects.

— Climate change mitigation: energy efficiency

As part of its climate strategy, Grupo EPM seeks to develop and implement practices and operations that favor the optimization of use and demand of the different types of energy that the organization requires for its operations and businesses.

In this way, EPM resumed the analysis of the energy efficiency business that it has with Veolia and adopted the decisions to i) continue participating in the energy efficiency business as a non-controlling shareholder, through VE Servicios de Eficiencia Energética S.A.S. and ii) allocate more resources of the company to this partnership, with views to the development of new energy efficiency solutions. Through this business, the company has reached more than 165 customers—namely factories, buildings (such as hospitals, shopping centers, offices), and district heating and cooling systems—in different regions of the country.

The power transmission and distribution companies implemented initiatives oriented to reduce energy losses from the power lines and leaks of sulfur hexafluoride, an artificial gas widely used in high voltage equipment thanks to its excellent electrical insulation properties.

EPM started implementing the regulation of sustainable construction in the projects, considering climate variables for the design of offices and facilities. The company made progress with actions of power consumption savings in administrative and operative areas (sensors, efficient lighting, and low-consumption air conditioners, among others) and replaced refrigerant gases of air conditioning, refrigerators, and other cooling systems for other less polluting gases. Likewise, it made progress with the formulation of plans for the efficient use of energy.

— Climate change mitigation: renewable energies

Grupo EPM has a portfolio of expansion projects for conventional and nonconventional renewable energy generation options, based on hydroelectric, photovoltaic, wind, and geothermal sources.

With the purpose of generating strategic value and ensuring more synergies exceeding the efforts accomplished individually, EPM maintained its strategic alliance with Invenergy to invest, develop, build, operate, and maintain power generation parks with wind or solar (including the possibility of rooftops) technologies in Colombia.

Furthermore, taking advantage of the solar resource, some companies of the group—such as ENSA, Delsur, Aguas de Malambo, EPM, and CHEC—are making progress with the development of initiatives to generate their own power in their offices or facilities.

Progress was also made with:

- Tailored offers by EPM for homes, residential complexes, universities, state entities, SMEs, companies, and business establishments that intend to replace part of their consumption with solar energy.
- Analysis by CENS for the implementation of renewable energy source systems at residential and commercial scales. The feasibility studies for the connection of photovoltaic solar energy (80 MW) projects to the system are already approved by the Mining and Energy Planning Unit.

The affiliated company Eegsa made progress with the process before Guatemala's National Electrical Energy Commission to contract the purchase of renewable energy supply for 15 years.

EPM and CHEC are making progress with the studies and licenses to develop the geothermal energy project in central-western Colombia, as well as with the financial model for its feasibility.

For its part, EPM continues to reclaim biogas at the San Fernando wastewater treatment plant (WWTP), which generates, on average, close to 40% of the plant's energy requirements. Moreover, it has conducted analysis to define the best use of biogas generated at the La Pradera landfill and the San Fernando WWTP, as a result of a new regulation that authorizes its purification and injection to the network.

— Climate change mitigation: sustainable mobility

EPM leads eight electric mobility projects that were part of the 2016-2019 development plan: regulation of Agreement 44 of 2015 and Decree 1221 of 2016 that creates the strategy for the promotion and mass use of electric mobility in the municipality of Medellín, Mobility Week event, signature of memorandum of understanding with companies of the ecosystem, pilot project implementation of electric taxis in Medellín, acquisition of electric buses in agreement with Área Metropolitana del Valle de Aburrá and Metro de Medellín, implementation of electric vehicles with third parties, and adjustment of public and private charging stations.

EPM makes progress with the consolidation of alliances that favor the implementation of measures and the strengthening of the electric mobility and vehicular natural gas (VNG) plans as clean transportation alternatives in the air quality programs. In this sense, EPM developed the **Calidad del Aire (Air Quality)** program with the **sustainable mobility** strategy and with initiatives that include **VNG**, slow internal charging, and public charging **stations for electric vehicles**, contributing to the reduction of CO₂ emissions, promoting a more rational use of energy, and opening new spaces to diversify and optimize the clean energy mix of Colombia.

As promoters of **electrical mobility** in Valle de Aburrá, the main achievements in 2019 include:

- Adjustment of a green public charging station, for a total of 20 in Valle de Aburrá and more than 600 users. At the end of the year, there were 613 new electric vehicles on the roads of Valle de Aburrá, for a total of 1,143.
- As for the public transportation fleet, commissioning of 64 electric buses corresponding to Metroplús vehicles, for a total of 66 on the roads. In addition, EPM put together the project of electric taxis, which has seven electric taxis on the roads, and acted as advisor in the drafting of national bills and municipal agreements that establish benefits for the users of this technology.



- Establishing of the offer to finance bicycles and electric motorcycles for holders of the Somos card (EPM loyalty program).
- Signing of the agreement between EPM and the EPM employee's fund to finance electric vehicles for employees of the company.
- Construction of five internal charging points for EPM customers, for a total of 50.
- Structuring, in collaboration with Renting Colombia, of the first Colombian project to rent electric vehicles.
- Opening by ESSA and EDEQ of public fast- and slow-charging stations for users of this technology in Colombia.

As for natural gas, the company made progress during the year with the following:

- The task of EPM in some conversion workshops is to promote the financing of the VNG equipment installation through the Somos program; EPM financed more than COP 2,800 million. Currently, the natural gas chain (producer, carrier, distributor—EPM) delivers a "bond" amounting to COP 1,254,000 per vehicle. Approximately 3,800 bonds were delivered in 2019 to install VNG equipment, to which EPM contributed an approximate value of COP 1,400 million.

- A total of 411 buses of the mass transit system and four Emvarias garbage compactor vehicles, which are still 63 in total, started operating with natural gas. In 2019, three drinking water tank cars became part of EPM, for a total of 66 trucks, including Emvarias' and EPM's fleet, operating with natural gas. In total, 503 natural gas vehicles, namely buses, trucks, dump trucks, and taxis, are on the roads of Valle de Aburrá as of December 2019.
- There are currently 17 VNG stations: 15 in Valle de Aburrá, one in Apartadó, and one in Rionegro. Of the 15 stations in Valle de Aburrá, one is exclusive to the Metroplús mass transit system and another to the Emvarias garbage compactor trucks.

As for the EPM's fleet, by the end of the period, the company has the following natural gas fleet, whose main environmental benefit is its low emission of particulate matter, source of the air quality problem in the territory; compared with diesel engines, reductions can amount to 99%:

- Three tank cars with the capacity to transport 10 m³ of drinking water.
- One dump truck of the wastewater treatment plant.
- One repowered Vactor truck, with new VNG engines for diesel-engine units. Original engine.
- One bus to transport EPM's public servants on the EPM building-EPM Belén offices route in Medellín.

EPM estimates that, with the use of natural gas, particulate matter has been reduced by 91.87%; volatile organic compounds, by 45.54%; and carbon dioxide, by 21.14%. These percentages are obtained by comparing the emission reduction with natural gas as an Euro IV diesel substitute; with electric vehicles, this reduction is by 100%.

Additionally, EPM implements the **Corporate Sustainable Mobility Plan** (abbreviated PEMS as per its acronym in Spanish), through which the following was accomplished:

- A total of 136 executives and 324 public servants work from home, of which 56 started in 2019.
- Workdays were kept flexible with five staggered work schedules: from 6:00 a.m. to 4:00 p.m. (1,315 people), from 6:30 a.m. to 4:30 p.m. (1,032 people), from 7:00 a.m. to 5:00 p.m. (3,298 people), from 7:30 p.m. to 5:30 p.m. (935 people), and from 8:00 a.m. to 6:00 p.m. (201 people).
- In the En Bici al Trabajo (Bike-Riding to Work) program, 180 people registered in 2019, for a total of 705. In addition, the company maintained the 221 bike parking spaces at the EPM building, 24 at the Calle 30 offices, and 40 at the Colombia substation in the city of Medellín.



- The EnBici mobile application was enabled and now it has 471 users.
- To facilitate commute, 24 positions were enabled in 2019 at offices south of the metropolitan area for people living nearby.

— Climate change adaptation

Seeking proper articulation with the corporate tools to manage this adaptation, the company made progress in 2019 with:

- Formulation of a climate module based on the corporate risk framework, with the purpose of addressing, analyzing, and constantly managing climate risks as appropriate in the levels of group, business, company, project, or process.
- Completion of stage II of the study on climate scenarios as of the year 2100 in the areas of greater interest to the water and energy businesses located in Antioquia. The forecast includes temperature rises, storms, and dry periods, which will impact power generation and distribution and water supply.
- Installation of two servers at EPM, which will enable the group of professionals expert in the water and energy businesses to operate a specialized climate model and provide the relevant indications during decision making. The climate adaptation plan of the group will be updated and complemented based on the main measures provided by this study.

Project development

Vision 2025 growth projects

Based on analyses carried out by EPM regarding worldwide transformations that have been occurring in the public utility sector and their implications for the future of its businesses, a consulting process was developed in 2017, which produced a series of recommendations on the new businesses and the lines that should be integrated, as well as the action routes in the medium and long terms to maximize the value of Grupo EPM by 2025.

— Nonconventional renewable energies (NCREs)

In order to increase the energy portfolio of EPM through NCRE solutions (solar parks, wind farms, and power self-generation plants) with a strategic ally and gain the key capacities to develop this type of businesses, during 2019, the company selected Invenergy as its strategic partner, negotiated the knowledge transfer plan clauses, and signed a collaboration framework agreement in November. This initiative is expected to generate an EBITDA of COP 178.2 billion by 2025.

— Small hydroelectric power stations (SHPs)

This project aims to strengthen EPM competitiveness in terms of planning, construction, and operation of SHPs through the design and implementation of improvements applied to processes that lead to the execution of new SHP projects. Its scope includes the application of improvements and the formalization of a partnership for the development of the Santo Domingo project (two 20-MW SHPs). The main achievements are:

- Structuring of the Santo Domingo project with two SHPs. Successful modification procedure of license, which is to be obtained.
- Recommendation about five potential allies that continue in the process to competitively develop the Santo Domingo project.
- Registration of the environmental impact assessment of the Guacaica SHP.
- Exemption from environmental diagnosis of alternatives for the PGU6 projects.

This initiative is expected to generate an EBITDA of COP 49.3 billion by 2025.

— Growth and efficiencies in solid waste

With the purpose of structuring and implementing feasible lines of business for the growth of the solid waste business through landfills, recycling, hazardous waste, and construction and demolition waste (CDW) and for the definition of the technological configuration looking to the valorization of waste that is not sorted at the source, progress was made during the year with the following:

- The agreement with International Finance Corporation was signed to define the road map for the valorization of waste that is not sorted at the source.
- The lawn mowing and street cleaning component was included in the solid waste fee.
- In efficiency, with Emvarias, the tree pruning and grass-cutting processes were included in the fee. Likewise, the leachate management is partially included in the fee (COP 5,000/t). The studies to improve the cleaning routes also started.
- Support was provided to Emvarias in the installation of waste containers in some areas of the city.



- The direct purchase management was structured from Emvarias.
- The company awarded the consultancy contract of road map for the valorization of waste that is not sorted at the source.

- In the reclamation line, the pilot program for the extended producer responsibility was structured with Emvarias, Kaptar, and TriCiclos. Moreover, support was provided to reclamation of organic waste, classification and reclamation stations, and Puntos Naranja (Orange Points) of Emvarias.
- Reciclados Industriales de Colombia was selected for the reclamation of CDW.

This initiative is expected to generate an EBITDA of COP 53.7 billion by 2025.

— Financing

The project seeks to strengthen the commercial and operational capabilities of EPM and the national affiliates to enable Grupo EPM to reach better national market penetration. During 2019, the following was accomplished:

- Approval of the business case with each affiliate company: CENS, ESSA, CHEC, and EDEQ.
- Creation of the interaction agreement with affiliates.
- Completion of the financial and accounting model of the project.
- Definition of the commercial offer manual and the image manual, which includes the products to be financed and the financing conditions.
- Definition of operating procedures (customer attraction, credit analysis, payment to commercial allies and suppliers, billing, collection, document management, etc.).
- Definition and introduction of the information system implementation plans.
- Introduction of the granting policy standardization.

This initiative is expected to generate an EBITDA of COP 81,000 million by 2025 and to quadruple the number of attracted customers in the Somos program.

— B2B B2C

This project favors the definition and implementation of an added-value service portfolio to offer comprehensive solutions regarding public utilities for homes and micro and small enterprises, namely energy equipment: installation, repair, and maintenance. During 2019, the following was accomplished:

- Provision of maintenance services with Haceb. Nine services were provided.
- Commercial campaign and provision of maintenance services with Dismogas. A total of 172 services, of a goal of 50-200, were provided.

- Commercial campaign and provision of installation, maintenance, and repair services with Haceb and Dismogas. A total of 800 services, of a goal of 500, were provided.
- Strategy to sell memberships: 87 contacts and 21 sales, of a goal of 300 customers.
- Definition of the EPM a Tu Puerta (EPM at Your Door) brand strategy.
- Contracting of supplier Market Team to develop the pricing capacity.

This initiative is expected to generate an EBITDA of COP 28 billion by 2025.

— Solar energy self-generation project

The goal of this project is to offer solutions to the market through the sale of solar energy for large power consumer customers with power purchase agreements (PPAs) and comprehensive photovoltaic solutions for small and medium-sized enterprises and homes with engineering, procurement, and construction (EPC) contracts. During 2019, EPM installed systems through PPAs at Plaza Mayor (convention and exhibition center of Medellín) and made progress with the signing of a PPA with Universidad Eafit. In addition, the company accumulated for PPAs 15 commercial proposals, three signed contracts, and 0.423 MWp installed. As for the EPC comprehensive solar solution, by the end of the year, there were four attracted customers, 45 interested customers, and 7.75 KWp installed, which is equivalent to 875 KWh/month. By the end of December, there were 720 PPA and EPC-contract requests. This initiative is expected to generate an EBITDA of COP 15.4 billion by 2025.



Business development projects

During the period, progress was made with the execution of business transformation projects to improve Grupo EPM's governance, optimize processes and tools associated with the operation of businesses and with the support areas, develop the required capacities according to the defined strategy, and, in turn, benefit the customers and users and other stakeholders of EPM.

The accomplishments are listed below.

— Business transformation: strategic projects

The **Supply Chain** project stands out for obtaining benefits amounting to COP 272,220 million during the period, associated mainly with joint procurement, materials and warehouse management, and implementation of the Ariba tool for purchase management at EPM and the affiliated companies of the group.

The **Grupo EPM sin Fronteras (Grupo EPM without Borders)** projects include the **Field Productivity** project. Its purpose is to optimize the on-site procedures and resources of the natural gas, wastewater management, solid waste management, and power transmission and distribution businesses; this improves the coordination between businesses, creates synergies, efficiencies, and reduces the impact of costs on the fee. The project has increased the prompt closing of work orders, the crew's efficiency, and the hours of effective work and has reduced the failed visits, the overtime consumption, and the hours of travelling. It should be noted that the project methodology is also adopted by the international affiliated companies. The benefits obtained during 2019 amounted to COP 62,893 million.

An **asset management** system was designed and implemented following the ISO 55001 standard and seeking to ensure the creation of value in a sustainable manner and according to the corporate plan. The project minimizes the cost of valves maintenance thanks to improvements in the specifications and makes progress in the incorporation of asset management business rules in the maintenance processes of the sewerage system. In the generation business, the application of the different asset management tools made it possible to keep improving the readiness level. It is worth highlighting the reliability, serviceability, and availability analyses conducted in the Guatapé power plant, as well as the asset health indexes. In 2019, the project was closed and the capture of benefits amounted to COP 57,355 million.

The **Digital Connection** project was implemented aiming at an evolution in the enterprise architecture that would favor interaction between people and information, in addition to the provision of secure services to the different stakeholders of Grupo EPM. Throughout the year, security issues in storage were resolved and delivered to the SOC provider; the VPN (virtual private network) was also set in motion; and private ExpressRoute vs. VPN performance tests were carried out. The project concluded in December 2019 with the following achievements:

- Consolidation of data centers. During the third semester, 13 servers were consolidated.
- Monitoring tuning. Progress was made in the implementation of "Operation Management Service" practices, whose name changed to "Log Analytics". An availability analysis transaction of the external EPM portal was implemented.
- Updating of the Service tag. Application of the objects of the Azure's productive subscription.
- Publication of the mechanism for assigning values when creating a service in the application.
- Creation of the EPM's multicloud management platform document based on Gartner and other documents from the main suppliers of the Magic Quadrant.

With the purpose of effectively supplying the goods and services required for the proper operation of Grupo EPM, the **Supply Chain** project was implemented through a management model, which obtained benefits for COP 272,220 million, thanks mainly to the reduction in joint procurement and contracting plans among the affiliate companies.

Leveraging the business strategy and evolution is also achieved through the transformation of the workspaces. For this reason, the **EPM Building Renovation** project was carried out in order to improve the communications service of basement 2, as well as floors 3, 4, 5, 6, 7, 8, 10, 11, and 12. During the year 2019, adaptations were made on floor 0 and renovation of floor 9 was started.

— Efficiencies 2025 projects

The project for the **implementation of efficiencies in the power transmission and distribution business** stands out for being classified as a research project by Colciencias, which creates tax benefits to EPM for about COP 973 million.

The efficiency in the **Global Shared Services Center** project seeks to strengthen the growth of the Shared Services Center as a support and optimizer of common processes in the business group. It expects to generate an EBITDA of COP 23.8 billion by 2025. The main achievements are:

- Completion of the survey on the current status, both in EPM and its national affiliates, of the processes of cost management, accounting management, tax management, supply, accounts payable, compensation, and contributing insurances.
- Contracting of a consultant (Ernst and Young) who supports the redesign and implementation of the service center.
- Redesign, implementation, and go-live of the first service: contributing insurances.
- Redesign of the supply management service.

To achieve efficiencies in the gas service, the project for the **implementation of operational efficiencies in the gas business** was created. It seeks to reduce operating costs by analyzing and formulating initiatives in the processes of the Vice Presidency of Gas. The object of impact will be all the processes of the gas business, without including support processes. By 2025, it is expected to generate an EBITDA of COP 4.7 billion. Throughout the year, with the efficiencies identified, benefits close to COP 1,050 million above the established target have been captured. The “income insurance” efficiency is the initiative with the greatest positive impact.

In order to improve efficiencies in the generation business, the project for the **optimization of plant availability in EPM's major hydraulic stations** was started aiming at increasing availability by managing the unavailability hours. By 2025, it is expected to generate an EBITDA of COP 2.9 billion.

The main achievements are:

- Construction of a model to determine the asset health index in generation.
- Construction of the block diagram for major hydraulic plants

- Functional modeling of the Reliability, Availability, and Serviceability (RAS) model—designed to manage all variables related to plant availability—for major hydraulic plants.
- Assessment of the health index of significant assets of all major hydraulic plants (stator, rotor, turbine, and transformer).
- Presentation of the guide that explains the scope of the different types of overhaul.
- Completion of the planned maintenance optimization (PMO) system in Porce III.
- Achievement of the availability goal with a value of 92.9%, taking into account that the goal was 92.68%.

The project for the **implementation of efficiencies in the power transmission and distribution business** seeks to identify opportunities to obtain short-term benefits, reduce costs, increase income, optimize cost-expense, and lower investment; thus capturing operating efficiencies in EPM and the national energy affiliates. By 2025, it is expected to generate an EBITDA of COP 37.7 billion.

The main achievements are:

- Installation of 20 macrometers to monitor consumption of large customers.
- Power recovery based on the data obtained from the macrometers installed. To date, it amounts to 142,000 kWh/month approximately.
- Replacement of 264 km of network in critical circuits.
- Installation of 250 reclosers.
- Installation of 9 automatic reclosing systems in the network.
- Development of analytics for real-time quality indicators.

— Capacity-building initiatives 2025

Grupo EPM constantly executes projects with a high impact on society. For this reason, it works on strengthening this capacity through the **Project Management** project, which aims to achieve success rates of 80% or more in the development of infrastructure projects on time, within the cost estimate, meeting the initial objectives and business intention, exhibiting the expected quality and a high level of maturity in the materialization of benefits. All this, by strengthening internal capacities in EPM and improving capacities between EPM and its environment. This initiative is expected to generate an EBITDA of COP 3.7 billion by 2025.

The main achievements are:

- Implementation of 10 modules of the project management training plan.
- Progress in the construction of the portfolio management strategy at the territorial level.
- Preparation of specifications for PPM contracting (Primavera).
- Construction of BIM libraries.
- Start of the design reliability consultancy (Design to value).
- Implementation of action plans in the businesses to improve 2019 budget execution.

The **Digital Transformation** project aims to achieve a fundamental change in the way of operating and creating value for the different stakeholders, incorporating digital technology in all areas of the organization and digitizing processes and forms of interacting. This becomes evident as different and innovative solutions are delivered, a better relationship with customers is achieved by transforming traditional processes into customer-centric processes, data are optimally used, and greater analytics capabilities are developed to operate, invest, and explore new opportunities. By 2025, it is expected to generate an EBITDA of COP 16 billion. The main achievements are:

- Completion of the capacity assessment model.
- Start of the agile methodology and innovation courses for key teams in the organization.
- Seven start-ups in execution (digital transformation teams focused on solving business challenges) of four initially planned in 2019. Two of them with subteams to work on specific topics (technology and processes). The start-ups have created minimum viable products in advanced analytics, customer experience, and digital components.

— Other strategic projects

In order to minimize the risks associated with information and business operations, it is worth highlighting the **Information Security Management System** project and the **Operational Safety** program. During the year, the former developed cyber intelligence services, facilitating the detection of external threats; while the latter was consolidated as a program to manage operational safety, developing comprehensive solutions to implement the pillars of operational safety under standards.

With the execution of these projects, safety practices and culture are being promoted, so that the probability of people, goods, and infrastructure being affected is reduced through the continuous process of risk identification and management.

Other project that is worth mentioning is the **water supply system with telemetry**. Its IoT technology allows it to be the first regional water supply system and automate and control plant instruments remotely.

In 2017, the implementation of **El Centinela**, an **information security management system** applicable to Grupo EPM, was started in order to preserve the confidentiality, integrity, availability, traceability, and non-repudiation of the information assets that support the processes for the achievement of the group's strategic objectives. It allows the group to display its services and information to its stakeholders, minimizing the risks that affect the reputation, image, finances, and continuity of the services and information it offers.

The following services are among the main achievements:

- Operational center for security and cybersecurity in operation.
- Monitoring and correlation of events: in order to have a better protection, the team is correlating more than 3,600 million monthly records, which favors visibility of possible attacks.
- Advanced internal analytics: internal atypical behaviors within the systems were analyzed.
- Cyber intelligence services: external threats that indicate possible attacks were preventively investigated and analyzed so that the group is able to react opportunely.
- Cyber defense services: the behavior of attackers was investigated.
- Implementation of systems to detect intruders in the control center.
- Implementation of solutions for processing confidential information through cloud tools that make it possible to control the sending and copying of sensitive information.
- Implementation of protection mechanisms to secure information residing on mobile devices (laptops, cell phones, and tablets).
- Reduction of the risk indicator for cyber attacks in areas and processes of the power business: 4.99% reduction in control centers, 5.7% reduction in substations, 0.17% reduction in telecommunications, and 13.54% reduction in generation.

- Attack containment: configuration changes (352), blocking of services published on the internet (52), malicious network traffic (213), information theft (172), phishing (84), unauthorized use of information (530), spam-pishing (5,908).
- Contracting of the vulnerability assessment and monitoring service (SOC) in the four energy affiliates in Colombia (CHEC, CENS, EDEQ, ESSA).
- Risk assessment in national affiliates and Emvarias.
- Progress in the development of a cybersecurity awareness program for employees and contractors, through the implementation of the course on digital security policy (65% effectiveness); the dissemination of the digital security culture in the internal communication media: Mi Canal (My Channel), Correo Unificado (Unified Mail), EPM al instante (EPM Right Away), EPM te Escucha (EPM Listens to you); and cybersecurity talks and workshops with 315 people in person and 1,160 people via streaming. The social media security week was also held with 6 conferences and 6 practical workshops.

Antivirus programs were installed in 30 machines of the Control Center. Despite the execution of these actions, the risks related to cyber attacks increased during the year and were classified within the three most relevant risks by the World Economic Forum (WEF) due to their strategic impact.

For its part, the **Red Trunking** project aims at implementing an operational communications system that guarantees current coverage, that is, that facilitates tasks such as project development, maintenance, operation, and emergency response in each of the business units (power generation, distribution, and transmission; water supply and sewerage, and gas); and that, in addition, favors the expansion needs of EPM and the affiliates that may require it. It includes the analysis, design, and implementation of the trunking network. Among the advances of this project, it is worth highlighting the delivery of the detail designs by the contractor, the submission of critical elements for the Ituango project, the entry into service of the control center on the first floor; the entry into operation of the La Caverna, El Salto, Nevado, La Yegua, Marconi, Boquerón, Tarazá, and La Cruzada repeat sites.

In order to incorporate the best management practices in the treasury processes, the **Comprehensive Treasury Management** project was executed. It mitigates the existing risks in the operations of debt, hedging, portfolio, bank reconciliation, financial risk, and liquidity management of the group to leverage the strategy of the action matrix. During 2019, the group acquired the necessary infrastructure to implement the debt and derivatives functionality; configured the development and testing environments; purchased the license and reviewed, along with the SAP firm, the quality and production environments before starting production; and adjusted the conditions to guarantee their good performance. Likewise, it started the transition to production on December 23, 2019; loaded the balances and master data; carried out the period closures; and validated the figures to be released into operation.

The **Operational Safety** program covers the design and implementation of operational safety practices—in accordance with the ICAO standard (document 9859)—in the generation, transmission, distribution, gas, water supply, and solid waste management businesses of the parent company, including the support processes that impact the operation of the businesses. The main achievements are:

- Adjustments were made in the management of snacks, starting with the transmission and distribution businesses, and in the management of shifts and the fire protection system in the generation business.
- Water and sanitation: disclosure and validation, with the people involved, of the operational safety baseline. With this material, the roadmap will be designed to address the safety goal for the business. Progress was made in the execution of the action plan, but it was not fully completed because some elements and actions required the attention of other areas and additional time for their execution.
- Gas: completion of the operational safety baseline for the business, which includes the diagnosis for the development of the actions to be undertaken through the execution of the roadmap. Additionally, execution of the actions corresponding to the short-term findings that meant a risk to operational safety.
- Transmission and distribution: completion of the operational safety baseline and its respective roadmap. Moreover, reduction of the risks that may affect operational safety, thanks to the execution of 99% of the proposed actions.
- Generation: completion of the actions of the 2019 roadmap for the business, updating of the energy operation process, identification of four critical positions, definition of strategic risks associated with operational safety, and establishment of the respective service plans and of various guidelines for the use of electronic devices that are not part of the production process, for access to plants, among others.

Based on the increasing amount of information generated in Grupo EPM and the number of IT tools available for different processes, an initiative was created for the **implementation of an enterprise resource planning (ERP) solution** in the group. It is still being formulated and its purpose is changing the ERP of Grupo EPM at the national level; therefore, it is necessary to select, acquire, and implement the best solution for managing enterprise resources, based on the current needs and characteristics of the group.

Another business development initiative that is in the formulation stage is the **Transactional Business Architecture** project, which is focused on the definition, acquisition, and implementation of a technological solution to cover the needs and reduce the risks of the traditional commercial process, also including the necessary adjustments in the dimensions of strategy, processes, people, structure, and information.

With the purpose of implementing a more convenient smart metering scheme that allows EPM and the national energy affiliates of the business group to comply with the regulatory guidelines, the market needs, and the technological and process trends, a project is developed for the **implementation of advanced metering infrastructure in the electrical energy service in the companies of Grupo EPM in Colombia**.

In order to ensure the availability and reliability of documentary information in EPM and thus optimize operations and mitigate the risks from the inadequate management of information, the **Consolidation of Document Management** project was developed and, throughout the year, released the customers and work histories record in EPM and the national affiliates; in addition, Enter Online was implemented in ESSA, Emvarias, Aguas Regionales, Aguas del Oriente, Aguas de Malambo, and EPRio. It is worth mentioning that the project advanced in the construction of the document retention schedules (TRD) and the institutional file plan (Pinar).

— Innovation efficiencies

Grupo EPM seeks efficiencies or optimization in process, product, and offer in the current businesses. In order to define the project's initiatives, ideas were collected by means of the innovation agenda, a call for the Creando Ando (Creating) program—promoted by Human Development—and workshops with each of the business planning departments to validate the priorities, until reaching a consensus on the understanding of the problem and what is expected from D&I in the coming years.

The project for **injecting biomethane into the gas network** was approved in order to transform the biogas currently produced by the San Fernando wastewater treatment plant (WWTP) into biomethane that is subsequently injected into the natural gas network, which will represent a significant income stream for the gas and water businesses. This project, besides being necessary due to the technological obsolescence of the current motor generators, becomes the first circular economy project since it makes a more efficient use of biogas. Activities scheduled during the formulation stage were 100% fulfilled and, for this reason, the business case was approved in September 2019.



In its search for development options in new markets and businesses, Grupo EPM launched the **Floating Photovoltaic** project, which makes it possible to identify and validate whether floating solar panel technology can become a competitive technological option that creates conditions for commercial exploitation. During 2019, the contract was amended to certify both solar photovoltaic systems in RETIE (Technical Regulations for Electrical Installations). In the second quarter of the year, there was a damage in a cable coating, so the contractor is in the process of replacing the floating datalogger; situation that caused a delay in the operation and reception of the planned reports. Work was done to obtain and install equipment and materials that comply with the RETIE standard. The system is expected to be back in operation by January 2020, so that the delivery of operational reports is resumed.



In an attempt to incorporate new solutions into the water supply business by means of technological developments (grounding systems and telemetry), the **Water Supply System with Telemetry** was created, increasing the performance and productivity of the operations. The agreement was modified to extend the term and value with two purposes: include two new monitoring points near the below-average sector and expand the capacity of the control panel for including new operational signals (pressure and flow rate of the below-average sector).

This pilot becomes the first regional water supply system with IoT technology in Colombia, identifying so far multiple benefits that include:

- Online monitoring of the quality of the water supplied (pH, chlorine, and turbidity).
- Remote automation and control of the WWTP instrumentation.
- Contribution to decision making thanks to the information generated in real time.
- Opportune identification of faults in the pressure regulating station (PRS).
- Improvement in the quality of service (continuity, pressure, and physicochemical parameters of the water).

EPM has about 200,000 electrical energy installations in difficult-access areas; therefore, the provision of the service requires high physical and economic effort. This led to the creation of the project for the **operation in difficult-access areas** aiming at improving quality indicators and satisfaction in these places. The original goal is to develop and test a viable solution for Mandé, in Urrao, Antioquia, so that it can be scalable to other similar areas. In 2019, the best solution was selected for commercial operation in this location. During the year, the group worked on the definition of the scope for the pilot, the requirements, and the work plan; as well as on the management of resources and relationships for the development of the pilot and its implementation. The installation of meters was postponed until the last quarter of the year, since it was necessary to make some adjustments as a result of the risk analysis; however, due to law and order reasons, the installation of the pilot was interrupted and, to date, it has not been possible to access the area again to complete it.

Infrastructure projects

— Ituango hydroelectric project

The Ituango hydroelectric project is the biggest challenge that EPM has faced throughout its entire business history. It is a transcendental infrastructure work for Colombia because it represents the generation of 17% of the country's energy, with clean, reliable, safe, and low-cost technology. It is also a **regional development** initiative that directly benefits 12 municipalities and over 160,000 people in its area of influence.

On April 28, 2018, when the project was 84.3% complete, there was a sudden and unforeseeable blocking of the auxiliary diversion gallery (GAD), which, among other effects, led to the decision to enable the powerhouse as a canal for the discharge of the retained water, in order to give priority to the protection of human life and the environment.

In view of the contingency, EPM, as a member entity of the national system coordinated by NGRD, used all its capacity to take part in the **preparation phase** through support and training activities for the implementation of the contingency plan; in the **management phase**, by carrying out activities to meet the basic needs of the affected population; and in the **recovery phase**, by structuring a specific action plan for the recovery of the municipalities of Valdivia, Tarazá, Cáceres, Caucasia, and Nechí—located downstream.

During the contingency, **5,626** families were evacuated from the municipalities of Valdivia, Tarazá, and Cáceres. The families from the municipalities of Tarazá and Cáceres returned to their homes between July and October 2018, while the families from Valdivia have gradually returned to their homes. As of December 31, **1,974** families have returned.

In order to guarantee the living conditions of the evacuated families and meet, in an efficient and timely manner, the needs of the communities evacuated and affected, an economic support line was defined; in consequence, resources amounting to **COP 29,239 million** were delivered. Likewise, **84,344** humanitarian aid packages were delivered in Valdivia, Tarazá, Cáceres, Caucasia, and Nechí.

As for the social and environmental component, in response to the impacts of the contingency, different actions were taken to ensure the protection, conservation, preservation, and restoration of the Cauca River. The budget execution for this component, as of December 31, 2019, is **COP 228,174 million**. Additionally, **COP 659,069 million** has been executed as part of the additional social investment agreed in the BOOMT contract and of the regular social and environmental management of the project, that is, aside from the contingency.

The physical progress of the project is 76.7% and its cost currently amounts to **COP 15,310,061 million**. This value was considered in the Investment Plan 2010-2023, which is under permanent review according to the progress of the project's recovery works.

For the recovery and commissioning of the Ituango hydroelectric project, some relevant premises have been defined, which include the lifting of the precautionary measure imposed by the ANLA pursuant to Ruling 0820 of 2018, obtaining the opinion of the Poyry company for the lifting of the precautionary measure, building and/or reinforcing the plugs of the auxiliary diversion gallery and the right diversion tunnel, and recovering the penstock and the generation works.

Some of the benefits of the project are:

- Lower energy costs for the 2021-2028 demand by **COP 34 trillion**.
- **CO₂ reduction by 4.4 million** tons per year; benefits to the economy by USD 110 million per year.
- Income tax for **COP 18 trillion (2021-2061)**.
- Remaining project investments for **COP 5 trillion (2019-2024)**, contributing to the GDP.
- Direct jobs in construction: On average, **5,535** formal jobs per year (2011-2024).
- Direct jobs in operation: **370**.

With the construction of the Ituango hydroelectric power plant, the needs of the market are met and stakeholders are offered energy stability and security, as well as a commitment to the long term and the appropriate use of resources.

— Aguas Claras wastewater treatment plant park

The Aguas Claras wastewater treatment plant (WWTP) park is one of the works that make up the Medellín River Sanitation and Wastewater Management Plan (SWMP). This plant is designed to treat an average flow of 5 m³/s, with the capacity to remove 123 t/day of biochemical oxygen demand (BOD₅), which will remove 80% of the water's pollution load. This secondary treatment plant that receives domestic, industrial, and commercial wastewater from Medellín and Bello is the largest and most modern in the country and one of the most advanced of its kind in Latin America. In October 2018, it began operating its first treatment line.



In the development of the project, construction technologies were implemented that reduce the environmental impact and execution time of the works, including microtunnelling with tunnel boring machines (TBM) for the construction of the North Interceptor, excavation of shield walls (precast retaining walls) at the Aguas Claras WWTP and the Thermal Biosolids Drying Plant (TDP), and use of automatic welding in the assembly of the digester tanks.

In operational terms, modern, efficient, and appropriate technologies were used, considering the wastewater quality in Valle de Aburrá, with emphasis on electrical energy generation with biogas from sludge stabilization and on biosolids drying with thermal energy recovery.

In 2019, the Thermal Biosolids Drying Plant came into operation and Aguas Nacionales received the Aguas Claras plant operation from Consorcio HHA (constructor and operator for one year).

As for the environmental and social management, awareness-raising campaigns on the sanitation of the Medellín River were conducted in 2019 with 684 people from the community in the area of influence of the project. Similarly, 62 guided visits were made to the WWTP, 725 school kits were delivered to seven educational institutions in the area of direct influence, and informative events were carried out with stakeholders during the plant's testing and stabilization stages.

— Valle de San Nicolás

The aim of this project is to provide water supply services and, partially, sanitation services in the rural and suburban sectors of the center-western area of Valle de San Nicolás and the municipality of Envigado. The following infrastructure will be built to that end: Stage 1 - Water supply in Envigado, Stage 2 - Water supply in El Retiro, Stage 3 - Sanitation in Centro Poblado, Alto Palmas, and Retiro, and Stage 4 - Water supply in Rionegro.

In 2019, investments amounted to COP 42,782 million and, since the beginning of the project, COP 219,754 million has been invested. It is worth highlighting as the procedure of the year the obtaining of the environmental licenses for the execution of stage 4 and of the order to initiate the contracting process for the civil works of the La Fe, Tablazo, and Gualanday sections; the completion of the civil works of stage 2 (La Fe circuit, Los Salados section, and La Fe traffic circle); and the completion of the works for the expansion of the El Retiro WWTP and the beginning of the testing and stabilization process for its operation.

Within the social and environmental management, it is important mentioning the implementation of information, awareness, and community participation programs with the different stakeholders and the strengthening of community leaders' abilities, which makes it possible to establish and consolidate two-way communication and trust relationships for the viability and sustainability of the projects; as well as the social support for the constitution of easements and property management.

— Water Provision Intervention Program (PIPA)

With the purpose of ensuring continuity of the water supply service in the short and the medium terms, the Water Provision Intervention Program (abbreviated PIPA as per its acronym in Spanish) was created by the end of 2017. This program integrates critical interventions and a series of projects that will improve the continuity of the water supply service.

This intervention plan consists of six projects located in the upper part of Western Medellín (Pajarito, San Cristóbal, San Javier, among other sectors), in the southern sector (San Antonio de Prado and the municipality of Itagüí), and in the northern area (municipality of Bello). Its purpose is guaranteeing the water supply service to more than 500,000 users in a reliable manner, considering the quick growth of Valle de Aburrá (expansion projects and natural increase) and the deterioration of water sources.

The total budget of the plan is COP 582,600 million, of which COP 45,622 million was invested during 2019. It is worth highlighting the coming into operation of the Aures I - Aures II headrace tunnel in Cadena de Occidente (Western Chain), in addition to the completion of civil works on the Buey - Piedras pumping station.

Within the social and environmental management, it is important mentioning the preparation of two studies on ecological connectivity; the implementation of information, awareness, and community participation programs with the different stakeholders; the strengthening of community leaders' abilities; and the social support for the constitution of easements and property management.

— Projects of the Regional Transmission System - Urabá region

Since January 2017, four expansion projects of the Regional Transmission System (STR) are being executed in the Urabá region, with the aim of guaranteeing the energy supply and the reliability in the provision of the service for the connection of Puerto Antioquia and the current users of the system in Urabá (Antioquia), as well as those expected with the dynamism that the port brings, which in turn increases customers' and users' satisfaction with the service provided.

The project portfolio has an approximate investment of COP 75,089 million and, as of 2019, COP 33,426 million has been executed. The following are some milestones of the year:

- Entry into operation in October of the project to increase the capacity of the Urabá 220/110/44 kV substation, with a total investment of COP 12,717 million.
- Entry into operation in October of the project to standardize the Carepa 44/13.2 kV substation, with a total investment of COP 7,893 million.
- Entry into operation in March of the project to increase the capacity of the Arboletes 44/13.2 kV substation, with a total investment of COP 1,225 million.
- In the project for the connection of the Urabá - Nueva Colonia - Apartadó 110 kV substations, progress is being made with the civil works of Nueva Colonia, in the control detail designs, in the protection and automation of the substations, in the management of equipment and material contracting for Nueva Colonia and the transmission lines, and in the property management of the easements.

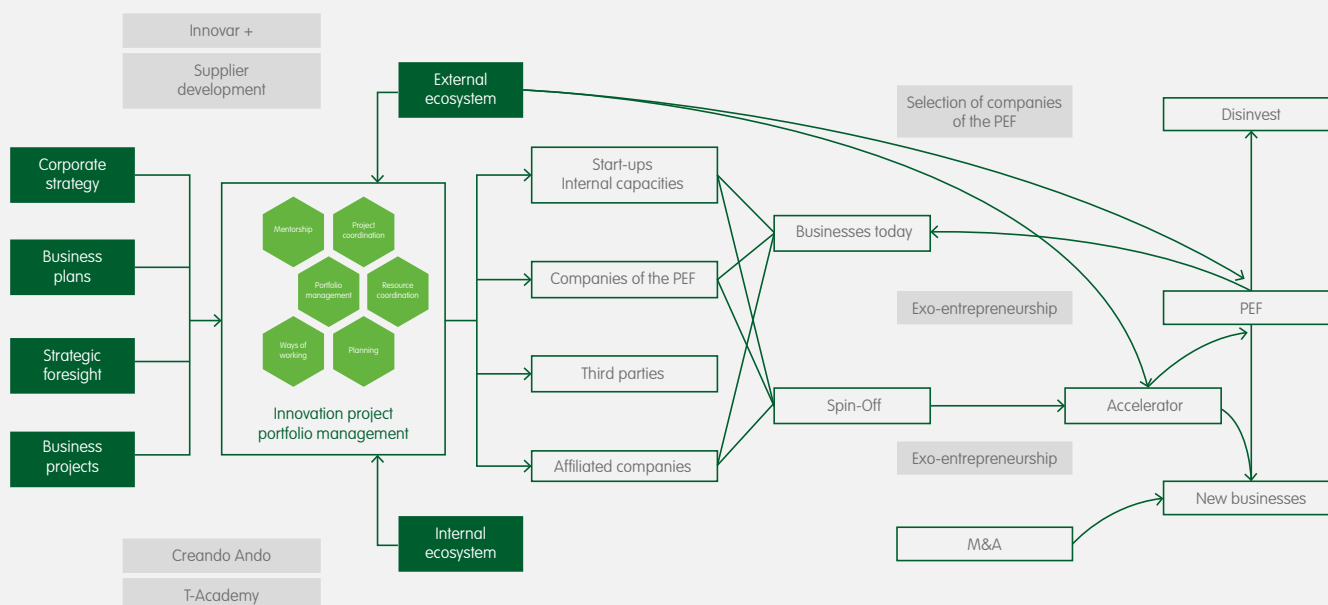
Regarding the social and environmental management, it is worth highlighting the preparation of the Environmental Management Plan for civil works and assemblies of the Nueva Colonia substation, as well as the agreement on the definitive route for the 110 kV transmission lines of the project for the connection of the Urabá - Nueva Colonia - Apartadó substations with the banana and plantain producers operating in the area that the line crosses. The line route was approved by most of the owners and the work continues, addressing specific cases. The Environmental Impact Assessment (EIA) was filed on October 15, 2019, before Corpourabá, while in November 2019 the Ministry of Environment and Sustainable Development issued the authorization to end the national closed season for the project. The sociopolitical environment is being analyzed in order to deliver the necessary instructions to the project; in addition, the environmental and social management is being articulated with the Model of Territorial Integration (abbreviated MIT as per its acronym in Spanish) in Urabá, leveraged by the Urabá EPM Management.



Innovation management

Innovation in Grupo EPM is the ability to develop and implement new solutions, new sources of income, and new businesses that change lives, create economic, social, and environmental value, and effectively contribute to the growth and sustainability of the group, coordinating mechanisms and actors in the innovation and entrepreneurship ecosystem. It is understood to be open, focused on human talent, oriented towards achieving the SDG, and aimed to stakeholders.

The innovation system is aligned with the corporate and competitive strategy and integrates various forms of growth, including intra- and extra-entrepreneurship by means of initiative acceleration mechanisms and investment in highly innovative companies related to the group's business through the private equity fund (PEF). The system also includes programs such as Creando Ando (Creating) and T-Academy, which is an innovation and technology training school for the promotion of innovation and entrepreneurship among employees. Other important programs are Innovar+ (Innovate+), Feria CT+I (ST+I Fair), Innóvate (Innovate Yourself), and Circuito Solar (Solar Circuit), which aim at the integration and strengthening of innovation skills among the actors of the external ecosystem, such as universities, suppliers, customers, students, etc.



Over the last few years, efforts and synergies have been articulated through a single work plan called Agenda de Innovación (Innovation Agenda). Based on the innovation focuses by business agreed in 2018, some innovation challenges were identified for each business

and subsequently launched in a training and dissemination event called Innovar+, which had the participation of employees and suppliers of Grupo EPM and students from different universities. Additionally, Creando Ando, a call for innovation initiatives, was carried out in the group, which received and analyzed 76 initiatives and chose 12 to continue in a training and development process until the proof of concept and the pitch presentation.



Nonconventional renewable energies (NCRE)

- Solar energy.
- Wind energy.
- Biomass.
- Biogas.
- Small hydraulic power stations.
- Geothermal energy.
- NCRE integration.
- Hydraulic and thermal power stations.



Transmission and distribution

- Operational optimization and maximization of returns.
- Purchasability and digitization.
- Increase in service provision (growth and coverage).
- Environmental and social management.



Water supply Wastewater management

- Sustainable management of water sources.
- Infrastructure optimization.
- Distributed solutions.
- Energy efficiency.
- Water treatment by-products.



Natural gas

- Comprehensive solutions.
- Biogas.
- Vehicular natural gas.
- New gas applications



Solid waste management

- Operational and infrastructure optimization of the waste collection service.
- Waste reclamation.
- Waste valorization.
- Efficient management of sanitary landfills.

During the 2016-2019 period, EPM was recognized as a highly innovative company and the Development and Innovation Management was distinguished as a R+D+i unit, through which six projects were executed and presented before Colciencias that were qualified as science, technology, and innovation projects and received certificates for around COP 33,000 million to apply tax deductions and discounts.

Private equity fund

During 2019, Ventures EPM made progress in structuring the private equity fund II and selecting the management company, while executing the first business acceleration pilot by means of the agreement with Créame and Ruta N. In this process, the companies HOH and NEU are being accelerated and are currently conducting proofs of concept for some needs of the water supply and power distribution businesses, respectively.

Along with ERCO Energía S.A.S., the company signed a 10-year solar energy sales contract with the Plaza Mayor convention center in Medellín. In addition, it launched Oferta Solar Integral (Comprehensive Solar Offer), a product aimed at homes, and is currently designing solar roof projects for large EPM customers. The implementation of IoT pilots for managing rural water supply systems and business infrastructure was also achieved with the participation of Telemetrik in the successful pilot, which made it possible to monitor the telemetry system performance in 2019.

Young public program (Jóvenes Innovadores)

The Jóvenes Innovadores (Young Innovators) program is a commitment of EPM to develop innovation skills in the new generations of Medellín and other municipalities of Antioquia with projects that create alternative solutions in five lines of interest: sustainable mobility, alternative sources of energy, water and life, solid waste management, and comprehensive solutions for agriculture. Innóvate and Circuito Solar, events in which there was important progress, are part of this program.

- **Innóvate EPM:** projects from 15 universities signed up and 11 universities are participating in the current phase. The five finalist teams received mentoring and the closing event with the finalists was held on November 15.
- **Circuito Solar EPM:** 180 teams from schools in Antioquia signed up for 94 projects. For the first time in the history of the program, there was a classifying system with regional qualifying races where participating teams were grouped into regions: Medellín, South, and North. Each region had a competition from which the 60 best teams were selected to compete in the final race. A total of 173 students and 40 teachers participated.

Technological developments for the businesses

In 2019, the Acueducto Aéreo y Senderos de Vida (Overhead Water Supply System and Life Paths) project, developed by EPM and Aguas Regionales in Turbo, in Antioquia's Urabá region, ranked second in the social innovation category of the Ideas en Acción (Ideas in Action) awards, organized by the Inter-American Development Bank (IDB).



With the energy companies, Grupo EPM works in the search for solutions to achieve smart metering, increased efficiency, and reduced losses. That is why it has projects such as:

- Expansion of the telecommunications network (MPLS) to interconnect the networks of all national affiliated companies.
- Thermal barrier coatings and development of the “smart terminal board holder”.
- Analytical models to improve service quality indicators in the power transmission and distribution business.

In the water supply business, nontraditional solutions are being implemented. These are related to other forms of water catchment for human consumption, use of new water sources, use of new structures and materials, and application of different practices for the removal of microorganisms or pollutants, among others. During 2019, the following initiatives were developed:

- Pilot project for the construction of overhead water supply systems in the municipality of Turbo, Urabá.



- Evaluation of the pump-as-turbine (PAT) technology to regulate the pressure or relieve the excess energy from EPM's water supply network flow and, this way, use it for generating electrical energy.
- Along with Aguas Regionales, the company executes the telemetry project in the water supply system of Sucre, in the municipality of Olaya.

Projects of new businesses

Grupo EPM is constantly looking for new and better solutions for its customers and users. That is why it seeks the incorporation of different lines of business derived from research, development, and innovation with the purpose of meeting the market demands that favor the evolution and transformation of the traditional businesses of the organization.

The projects implemented in 2019 aimed at producing savings and efficiencies: monitoring of the performance of the water supply system with telemetry in Sucre; operation in difficult-access areas with a pilot in Mandé, Urrao; preparation of the business case for the project of injection of biomethane into the gas network; and delivery of the case for the project of renewal of dielectric oils, authorizing its continuity to the incubation phase. The latter initiative will be part of the solid waste management project of the Vision 2025.

Operation of our businesses

Generation

The actual power generation of EPM at the national level during 2019 was 14,305 GWh, of which 14,081 GWh corresponded to hydraulic generation; 161 GWh, to thermal generation; and 64 GWh, to wind generation. Regarding thermal generation in December, 146 GWh were generated in merit and the rest corresponded to operational tests. Compared to 2018, hydraulic generation shows a reduction of 876 GWh (the national hydraulic generation in 2018 was 14,957 GWh). The difference lies in the fact that 2018 was a year with normal water inputs, while 2019 was affected by El Niño, leading to a decrease in water levels and reduced river flow rates, especially between August and December. In the last quarter, the average input was 71%, which led to a reduction in hydraulic generation in order to increase the reservoirs and face the summer of 2020 in optimum conditions.

The generation plants presented high availability indices and the lower units generated were due to reduced water inputs.

The behavior of the stock market price in 2019 was also impacted by the variations in water inputs. The average monthly price in 2019 was 231 COP/KWh, higher than the one recorded in 2018 (116 COP/KWh). Prices were high at the beginning and the end of the year, and low at midyear, during the rainy season in the eastern area of the country.

In 2019, plant availability results are generally positive for EPM. An important milestone is the definitive recovery of the Playas hydroelectric plant, which started operating normally in July with the delivery of 207 MW. In order to manage the availability of EPM's larger hydroelectric plants in a profitable and sustainable manner in the long term, the company is working on the availability optimization project, which seeks to maintain reliable and operational assets to leverage the business' commercial strategies.

At the end of the period, smaller power stations did not achieve the availability goal, mainly due to forced stoppages and unscheduled services. Wind power availability was above the goal, while cumulative thermal availability was below the expected rate, due to the extension of the maintenance of the unit 1 in the La Sierra thermal power station.

As for the national affiliates, the following events had a negative impact on the results: in ESSA, the works for the reconstruction of the skip in the Cascada power plant and the corrective maintenance tasks at the Palmas plant between January and July 2019; and, in CHEC, the damage to the Curazao headrace tunnel at the Ínsula plant, which affected the availability of the station and the generation in the entire chain (Ínsula, Esmeralda, and San Francisco power stations) between February and August 2019.

The Alianzas para el Desarrollo (Alliances for Development) strategy was strengthened, involving relevant actors in the territory, broadening the negotiation horizon, and focusing on actions with greater impact.

Among the main achievements, it is worth highlighting the nine alliances signed and implemented with a regional perspective, in environmental, economic, and social matters:

In social matters:

- 13,000 children and young people received training through the Recreando la Paz y la Convivencia (Recreating Peace and Coexistence) agreement with Universidad de Antioquia, with the purpose of strengthening life skills by means of educational, sports, cultural, and environmental processes for the transformation of communities towards peace, coexistence, and integral development. The project reached 277 rural settlements and 298 educational centers, leaving installed capacity for 405 teachers and 4,897 parents.
- 134 community organizations linked to processes for improving their capacities and skills.
- 245 social leaders and public servants certified in training processes through the courses in development and community and territorial leadership.
- 15 community and youth initiatives. COP 335 million was invested in social, environmental, and sustainable tourism initiatives as a community contribution and recognition in the regions.
- 12 local and 2 subregional development agendas aligned with the 2030 Sustainable Antioquia agenda, in the framework of the SDG and in articulation with the territorial planning processes.
- Rural education offered in El Tablón, through the collaborative model of rural higher education, in alliance with seven universities and educational institutions with coverage in the north and northeast of Antioquia, which made it possible to start the process of technical training in electrical networks for 24 scholarship holders.
- Presentation of the El Tablón educational model before Colciencias, as a project for the provision of four digital collaborative environments for science, technology, and innovation amounting to COP 8,298 million, with a contribution from the allied entities by COP 1,914 million. The results of the call will be available in 2020.

In economic matters:

- 1,457 agricultural producer families from 19 municipalities, focused on sustainable production, commercialize their products through eight collection centers, eight revolving funds, and established markets. Some of them have managed to penetrate international markets with their own brands; it is the case of the commercialization of more than 150 tonnes of tomato from El Peñol to Martinique and more than 100 tonnes of coffee from the Porce River canyon exported to Belgium.
- Completion of the works corresponding to the first phase of the Guatapé pier, with new infrastructure at the service of the community and the region. Second phase of the project with the construction of the loading wharf, made viable for 2020.
- In the area of influence of the Jepírachi wind farm, 218 indigenous people from the Wayúu community were given access to drinking water and productive projects in fishing and craftwork, in addition to training processes in product innovation.

In environmental matters:

- Contribution to the protection of 13,600 ha through different conservation strategies and improvement of the natural capital with programs such as payment for environmental services, development of good environmental practices in production processes, reforestation and restoration, declaration of protected areas, basic sanitation, sustainable tourism, and environmental education.
- Planting of more than 800,000 trees with a wide participation of community and institutional actors in this initiative called Sembratón.
- More than 700 families benefited from new rural basic sanitation systems and 74 families receiving payment for environmental services and developing community monitoring strategies in the biological corridor of the puma of Eastern Antioquia.

Transmission and distribution

Regarding the **quality of service**, indicators have been improving thanks to EPM's efforts to strengthen the infrastructure of the distribution system (preventive and corrective maintenance of the local distribution system - SDL), but also thanks to expansion and replacement activities, implementation of suspensions, application of new loops automation, and installation and connection of new equipment that helps reduce power service restoration times.

It is worth highlighting the standardization of the monitoring of activities and processes associated with the quality of service in EPM and the national affiliates, as well as the development of an analysis tool for measuring and monitoring event management times, thus guaranteeing the restoration of services within the shortest possible time.

The results of the quality indicators for each of the companies are as follows:

SAIDI (hours/year)	
Company	2019
EPM	14.55
ESSA	23.15
CENS	27.33
CHEC	29.49
EDEQ	8.07
ENSA	12.43
Delsur	17.63
Eegsa	4.31

SAIFI (times/year)	
Company	2019
EPM	7.29
ESSA	15.13
CENS	8.96
CHEC	27.88
EDEQ	6.54
ENSA	6.56
Delsur	9.14
Eegsa	2.70

Source: Vice Presidency of Power Transmission and Distribution.

Figures as of December 31, 2019. The difference in values between companies is due to the geographic area, the network topology, the amount of customers served, and the analysis of events recorded. The difference in values between national and international companies is due to the particularities of the regulations in each country

With respect to the **management and control of energy losses** in Grupo EPM, the nontechnical losses indicator for the network operator has been at excellent levels since the beginning of the program, both for EPM and for the national affiliates of the group. The results speak of a comprehensive and sustainable labor in the group in Colombia, which has reduced the loss rate of the regulatory network operator (LRRNO), going from 9.44% in 2015 to 8.72% in a period of four years.

This has been possible thanks to the following actions conducted during the year:

- Standardization of tactical, technical, and operational procedures for energy recovery programs.
- Standardization in Grupo EPM of technical regulations and specifications for the equipment and materials of the project.
- Availability of planning software that allows for greater effectiveness when planning inspections. The system will issue an alert for those areas that present energy losses.
- Unification of technical specifications for hiring labor in the group.
- Standardization of the Uniform Conditions Agreement, which ensures equal conditions for the provision of the service to the group's customers.

Loss rate of the network operator (%)	
Company	2019
EPM	7.57
ESSA	11.84
CENS	11.91
CHEC	7.51
EDEQ	7.77
ENSA	11.47
Delsur	8.90
Eegsa	4.48
Filiales nacionales	8.72
Filiales internacionales	9.12
Grupo EPM	8.88

Source: Vice Presidency of Power Transmission and Distribution.

Figures as of December 31, 2019.

Water and sanitation

In general, the water supply companies presented high rates of **continuity in the water supply service**. In Aguas de Malambo, several pumping devices and the electric plant were put into operation, achieving an average continuity of 56.56% (in 2018 it was 38.77%). In Turbo, 24-hour continuity was achieved for 33% of users.

Since the second semester of 2017, the provisions of the New Pricing Framework for Water Supply and Sewerage (Ruling CRA 688 of 2014, amended by Ruling CRA 735 of 2015) were implemented in all the group's companies with more than 5,000 users (EPM, Aguas de Malambo, Aguas Regionales, and Empresas Públicas de Rionegro), regarding the continuity of the water supply service. Particularly in EPM, for the evaluation of the two semesters of 2019, required by the regulation, the continuity indicator was met (compared to a goal of 98.36%) and it was not necessary to generate discounts to users for noncompliance with the goal.



The results of the continuity indicator for each of the companies are as follows:

Continuity	
Company	2019
EPM	99.81%
Aguas del Oriente	99.9%
Aguas Regionales	92.1%
Aguas de Malambo	56.56%
EPRio	99.73%

Source: Vice Presidency of Water and Sanitation.

In relation to **water quality**, working groups were established with health and environmental authorities for the quality of the water withdrawn, quality variables were characterized in the water purification process, and the distribution network was systematically monitored. In addition, the modernization and expansion of the secondary treatment area was carried out in the San Fernando plant and in the tertiary treatment and disinfection areas of the El Retiro plant. It should be noted that, during 2019, all the group's water companies supplied water suitable for human consumption. The results of the water quality risk index (WQRI) are as follows:

Water quality risk index	
Company	2019
EPM	0.56%
Aguas del Oriente	0.48%
Aguas Regionales	0.05%
Aguas de Malambo	0.01%
EPRio	1.82%

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 Colombian Ministry of Social Protection. 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. Figures as of December 31, 2019.

As for **loss management**, the companies of the business took actions aimed at the early detection of leaks and their respective repair, the control of pressure according to the needs and growth of the system, the replacement of networks and the rearrangement of the system,

the renewal of the customer's meter park, the detection and elimination of fraud, and the formulation of alternatives for disconnected customers. In EPM, it is important mentioning a:

- 3% increase in the volume of losses of the system, which went from 86.8 million m³/year in 2018 to 89.5 million m³/year in 2019.
- In relation to the previous year, the loss rate per billed user (LRBU) remained at 6.05 m³/user/month until December 2019. The non-revenue water index (NRWI) as of December 2019 was 30.58%.

As of December 31, 2019, the results of the LRBU and the NRWI for each of the companies of the business are as follows:

LRBU (m ³ /user billed)	
Company	2019
EPM	6.05
Aguas del Oriente	2.61
Aguas Regionales	9.95
Aguas de Malambo	17.98
EPRio	2.95

NRWI	
Company	2019
EPM	30.58%
Aguas del Oriente	20.3%
Aguas Regionales	43.8%
Aguas de Malambo	58.3%
EPRio	19.9%

Source: Vice Presidency of Water and Sanitation.

Figures as of December 31, 2019.

The year's management also included the **Cierre de Brechas (Gap Closure) program**, which contributes to the decontamination of streams that flow into the Medellín River (with high benefits for the community located in the ten municipalities of Valle de Aburrá) and to ensuring greater coverage for the collection, transportation, and treatment of wastewater. All this in compliance with Ruling CRA 688 of 2014, which establishes in Article 9, as one of the goals of the efficiency standards, "the reduction of the difference among water supply and sewage customers". The main achievements of this program during the year were as follows:

- Award and execution of the contracts for "Diagnosis of connections and design of networks to link customers to the sewerage service in the northern and southern areas". The contract started in August 2019.
- Progress in the preparation of proposals for the construction of networks and connections to link customers to the sewerage service.
- As of December 31, 2019, the gap between water supply and sewerage service users is 20,532.

In **Aguas de Malambo**, it is worth highlighting the fulfilment of the 2019 investment plan, with an execution close to COP 20 billion. Fondo Fuente de Vida Malambo (Malambo Source of Life Fund) is an agreement between PepsiCo, Waterteth, Postobón, and Fundación EPM that benefited more than 5,660 families through the installation of micrometers (with subsidies of 66%).

Emvarias achieved the incorporation of 32,000 new users to the billing system, the approval of the fee modification for the leachate treatment, and the authorization of offset measures for the La Pradera landfill.

Ticsa closed the investment agreement, integrated and consolidated its corporate identity and communication (Ticsa Plantas and Ticsa Colombia), and implemented the self-construction model in Mexico.



Adasa (Chile) emphasizes the progress of 90% in the first desalination plant of Tocopilla (75 l/s), the agreement of the nonrecognized investments by Econssa, and the improvement in the relationships with the indigenous communities close to the catchment areas.

Natural gas

In natural gas commercialization and distribution, 768 million m³ was sold during the year. The highest consumption was in the regulated market with 37%, followed by the nonregulated market with 34%. The business has been analyzing different options for offering natural gas to companies that can use it in their productive processes, such as in food drying and dehydration. Other options are also being explored in poultry and pig farming, as well as in the plastics industry. In this way, a customer from the dried fruit sector was connected to the service in Apartadó, as well as 43 coffee growers with dryers and a pig farm. During the year, conversations were held with Pascual Bravo, a higher education institution, to set up a commercial offer aimed at the plastics industry (at the end of the year a proposal was defined to create a pilot that is expected to be developed during 2020).

In terms of **quality of service**, the gas of EPM has had a compliance of 100%, as required by the regulations, in all the quality indicators (pressure index in individual pipeline, odorization index, and equivalent length of service interruption index).

In **loss management**, there is a regulatory level that is remunerated by CREG. This distribution companies work so that their levels of losses are within this range (<3.3). EPM obtained an indicator of 4.3% in 2019. This year, improvements were also made in the process of information gathering for calculating the indicator, mainly through the resolution of errors in the billing information and the control of facilities with significant frauds. Some of the actions taken during the year include verification of the meters' precision due to damage or termination of the service life, progress in programs and controls for those users who consume gas without having concluded the connection process, implementation of programs and actions to control fraud and gas theft, and control of leaks due to damage to the network or operational activities.

Income from new businesses

In the search for new sources of income, commercial relationships with relevant customers and users at the national level have been strengthened, consolidating important businesses and generating additional income for Grupo EPM. Likewise, the group has started selling new products, such as renewable energy certificates (REC), solar energy, and electric mobility, which are becoming an important item in the income derived from new related products.

During 2019, new income amounting to COP 98 billion was billed for the provision of energy, gas, water, and sewerage services. It is worth mentioning an annual billing of COP 16 billion derived from lighting infrastructure works in different municipalities of Antioquia and other locations at the national level. The entry of Grupo BIOS, whose contract was signed for a term of 19 years, recorded in 2019 an average energy consumption from the nonregulated market of 12 GWh/month (about COP 4,300 million per month). For its part, Cementos Argos in Nare recorded an average gas consumption from the nonregulated market of 1,600,000 m³/month (about COP 960 million per month). Similarly, representative income has been generated by the signing of new contracts with third parties (billing and collection) and by the strategy of recovering energy customers from the regulated market, thus achieving an annual billing of COP 2,301 million.

In renegotiation of energy contracts from the nonregulated market, 100% of the contracts that expired in 2019 (3.3 GWh/month) were closed and, as a shielding strategy, 60% of the energy that expires in 2020 and 2021 (32.4 GWh/month) was negotiated in advance.

Since the beginning of the new green energy, electric mobility, and solar energy offers, about COP 5 billion has been billed as of December 2019. Particularly, the RECs have generated income of more than COP 4,915 million. In this way, this offer is consolidated in the nonregulated energy market as an important and valuable attribute for customers, while making Colombia the third country in the world, after China and Brazil, that sells this product.



Information technology

The digital transformation strategy was defined, which seeks a fundamental change in the way of operating and offering value to the stakeholders by incorporating digital technology into all areas of the organization.

The plan to transform the organization with technology and information was defined. The following are the main achievements in 2019:

Transforming the relationship with the business

- Identification of the **comprehensive roadmap** for the power, water, commercial, and supply businesses. The IT roadmap was agreed with the transmission and distribution business. The shared services and supplies roadmap is 70% complete.
- Development of a **business intelligence** solution to control the SLAs and monitor the demand and projects. At the end of 2019, it is being tested.

Enabling the future

- Performance of the AI (Artificial Intelligence) experiment and definition of the AI model for the identification of labels (objects) in the EPM bill, in order to determine if the histograms, dynamic images, and legal information are printed on the bill.
- In the robotics working group, implementation of the customer service chatbot, service desk, contact center, and inquiry of requirements of the Somos card.
- As for the information platform, progress has been made in the dissemination of the information management model, the assessment of the water business readiness in terms of information management, and the definition of the information management roadmap for asset management (CREG-Leving diagnosis).
- Regarding the capacities to operationalize RPA (robotic process automation) and BPMS (AuraPortal), to start automating business processes, progress was made in the delivery of the governance model to the IT Management and the demand for RPA is growing.

- Definition of the architecture design for the water autonomy application based on modern approaches. Implementation of the architecture for digital assistants with modern approaches (microservices, API management, and cloud).

Operational excellence

- Execution of the work plan to bring the proactive monitoring solution to all the EPM IT services. Monitoring was implemented in the power generation, prepaid energy, and EPM portal services.
- Progress in the simplification of the architecture.
- Automation of IT infrastructure operation. The components (scripts) for automation were developed and delivered with the respective incorporation of the automations in the infrastructure operation contract.
- Aiming at implementing high availability (HA), the first billing cluster node is operating in the new data center; the hyper-converged solution was delivered.
- Advances in comprehensive testing processes: in OPEN, the first automated test is being applied, where the selected scenario was the billing of a product individually. In CRM, automated tests were implemented to validate the creation of a case and the integration with OPEN, Mercury, and Marco Polo.

Regarding the application of information management practices and the creation of value from data, during the year, progress was made in several initiatives that include: integration with Document Management, impact of CREG 080, articulation and support to the data science community (predictive analytics), support for responses to audits in data governance, data science training map, customer data desk, CSC information model, Genio Project (information management in the power generation business), conceptualization of “data monetization”, participation in MIPG (information components of the Digital Government policy), modeling of the Information dimension in the MEGA tool, support to the information management of physical assets (in EPM and in the affiliates of the business group), articulation around the ADN Digital capacity (through the digital transformation project; particularly, the characterization and assessment of the “Create value from data” attribute), and work with the enterprise architecture team from the perspective of the Information dimension.

Suppliers and contractors

Throughout the year, the group strengthened the spaces for engagement and the local productive fabric. It also continued working on the initiatives for the development of suppliers and the continuous improvement of the processes related to the macroprocess of supply of goods and services, in order to leverage the strategic goals and the sustainable and competitive development of territories through contracting.

Engagement with suppliers and contractors

Improvement in the performance of the different impact indicators with suppliers and contractors, mainly the one related to contractor loyalty, in which a result of 60.9% was obtained, resulting from the difference between promoting contractors minus the number of critical contractors, that is, the most loyal contractors, who are satisfied and who refer in positive terms to EPM (see table). This is a sample of the value perceived by this stakeholder group thanks to the EPM's effort to improve the processes, tools, and mechanisms of interaction, which reflects the organization's commitment to complying with its policy of engagement with suppliers and contractors.

It is worth mentioning activities such as specific workshops with suppliers and contractors of the water supply business, in order to identify opportunities for improvement that contribute to the goal of being more efficient in the execution of the challenges in projects and in the operation of infrastructure. Similarly, within the framework of the Innovar + meeting, the first recognition program was conducted with those suppliers and contractors that presented innovative initiatives to favor the sustainability of the group's businesses and, in general, of the territories where the organization is present.

In the second semester, the event was held with suppliers and contractors and EPM addressed various topics of interest that include progress in the supplier development initiatives through the Sustainable Ecosystem for Suppliers Development (ESDP), changes in the supplier registration process, internal evaluation of the requirements of the Occupational Health and Safety Management System (OHSMS), electronic billing, progress in the EPM supply chain, and tips on public risk.

An electronic billing workshop was also developed for suppliers and contractors. The community action boards (CABs) attended the event to create a space for conversation and to solve questions.

In November 2019, an event was held with suppliers and contractors for the presentation of the comprehensive plan for the prevention of public risk due to social violence. It received representatives of this stakeholder group from the areas of influence of EPM, such as Ituango, Nechí, and Porce. Twenty companies attended the event.

As a general balance of the engagement activities of Grupo EPM (EPM, energy affiliates, Emvarias, and some water affiliates) with suppliers and contractors during 2019, 43 events were held with about 3,330 participants. Several topics were discussed, such as contracting plans, contractual regulations, registration and contracting processes in the Ariba system, innovation, health and safety at work, supplier development, electronic billing, tips on safety and public risk, among others.

Indicator	2019
Contractor satisfaction	89.7
Contractor loyalty	60.9
Supplier and contractor reputation	867

The impact of the steps taken in the engagement plan is measured by using the indicators in this table.

- **Supplier and contractor satisfaction.** It measures the satisfaction of the stakeholder group regarding the different transactions that they perform with EPM in the different goods and services supply processes.
- **Contractor loyalty.** It measures the degree of satisfaction with the relationship and, preferably, with EPM.
- **Reputation.** It measures the perception of this stakeholder group in relation to different attributes associated with the reputation of the organization. With the actions designed and prioritized in the plan, the group seeks to impact all of the indicators mentioned above.

Strengthening and development of suppliers

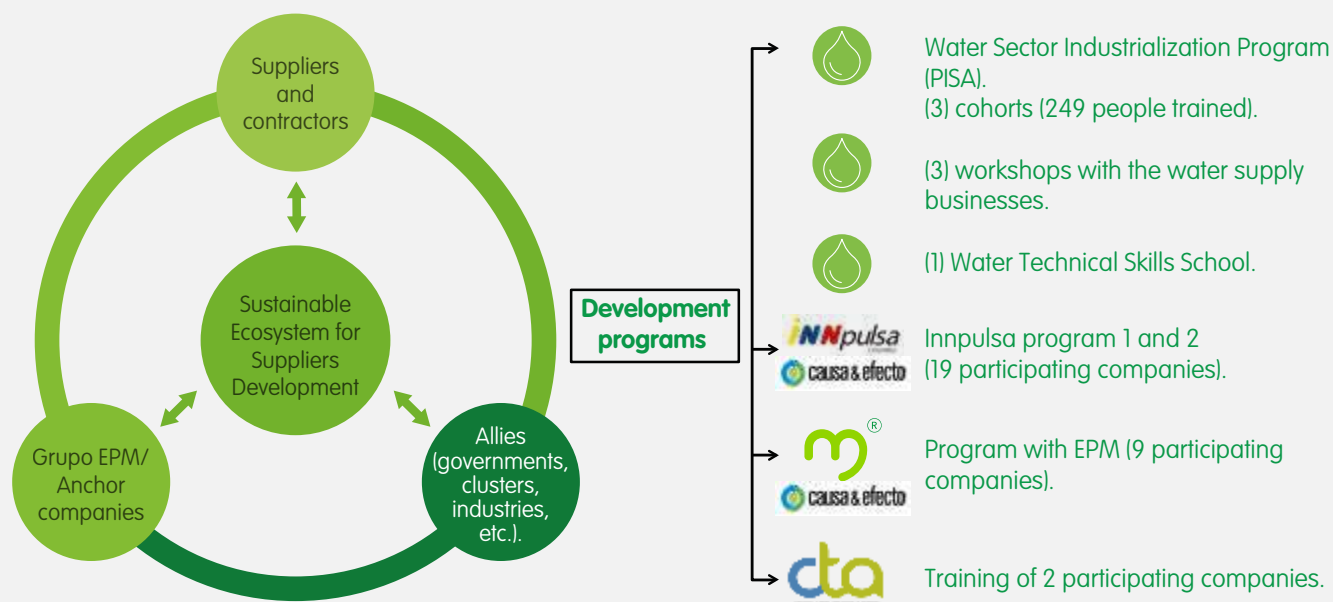
It is important highlighting the consolidation of the **Sustainable Ecosystem for Suppliers Development** and the collaborative work with other allies such as SENA, the energy cluster, and diverse local companies for the development of supplier and contractor capacities.

Throughout the year, the initiative reached more suppliers with a greater impact, thanks to the positioning of the development model called Sustainable Ecosystem for Suppliers Development.

This model seeks the articulation of the needs of Grupo EPM and the anchor companies with similar needs, as well as the development of capacities in suppliers and contractors through the engagement of local, regional, national, or international allies, strengthening the business fabric of the country by means of knowledge or economic contribution. In 2019, Grupo EPM implemented the following programs for strengthening and developing contractors:

- Development of suppliers under the Monozukuri methodology, in order to optimize the value chain processes, having Innpulsa Colombia and Causa y Efecto as partners. 18 and 8 companies participated, respectively.
- **Alliance with CTA:** support and training in development of solutions to improve productivity and competitiveness, as well as the engagement with suppliers at a level of maturity that makes it possible to solve problems. Two suppliers participated in this program.
- In 2019, the company undertook two initiatives of great impact for the water supply business and for society in general: **EDA—Escuela de Destrezas Aguas** (Water Technical Skills School)—in association with SENA, Causa y Efecto, and suppliers and contractors of the industry; and **PISA—Programa de Industrialización del Sector de Aguas** (Water Sector Industrialization Program), also in collaboration with SENA and suppliers and contractors of the sector, seek to improve the productivity and competitiveness of these companies and of the country, based on the integration and promotion of training programs for the human resource. Through this last program, 249 people (3 cohorts) were trained in electrofusion and thermofusion.

The following chart shows the operation model, the initiatives, and the suppliers impacted (numbers in parentheses).



Contracting

Reduction in contracting times by 40% and structuring and implementation of special contracting procedures such as supply with selection of various suppliers, framework agreement of prices, and strategic ally to improve the contracting opportunity for the infrastructure businesses and projects.

Contracting information was published in the Tecuento and Secop platforms to meet the requirements of Colombia Compra Eficiente, seeking to maintain the transparency and reputation indices in the relationship with suppliers and contractors.

Type of contracts in Colombian companies of Grupo EPM 2019		
Type of contract	Number of contracts	Value of contracts (million COP)
Supply of goods and services	39,978	1,965,685
Construction contracts	143	621,575
Provision of services	1,539	1,025,709
Movables and small purchases	172	74,094
Consultancy	108	71,326
Advertising connections and agreements	40	65,193
Other	492	333,815
Total	42,472	4,157,397

The amount and values correspond to what was signed by companies of Grupo EPM located in Colombia.

Contracts by modality in Grupo EPM 2019		
Modality	Number of contracts	Value of contracts (million COP)
Public request for proposals	7,155	2,050,233
Private request for proposals	33,981	363,003
Single request for proposal	1,336	1,744,161
Total	42,472	4,157,397

The amount and values correspond to what was signed by companies of Grupo EPM located in Colombia.

— Social contracting

In social contracting, one of the milestones in 2019 was the definition of the support and training topics for the community action boards, which we call the "curriculum".

During this year, we started structuring a "curriculum" or training program exclusive to social contracting, whose purpose is being more assertive in the processes of support and strengthening of the participating community organizations, as well as encouraging more allies to join this goal.

Social contracting		
Company	Number of contracts	Value (million COP)
EPM	116	37,662
Emvarias	28	2,018
ESSA	5	80
Total	149	39,760

The amount and values correspond to what was signed in 2019 by companies of Grupo EPM located in Colombia.

— Local, regional, and national contracting

For Grupo EPM, a **local** supplier is the one located in the municipalities, small towns, and rural settlements of the metropolitan area of the company under evaluation. A **regional** supplier is understood as the one based in the same region that supplies, but outside the metropolitan area. The **national** supplier is the one located in several departments. The **foreign** supplier is the one outside of Colombia.

Authorization of the procedure, pursuant to guideline 26, for contracting through the single and private modalities, as a mechanism for sustainable and competitive development of the local and/or regional fabric, both for EPM and its national affiliates.

Grupo EPM continues promoting local contracting. During 2019, more than 36,000 contracts were signed with local suppliers, that is, 85.73% of all the contracts signed.

Local, national, and foreign contracts of Grupo EPM		
Origin of the contractors	Number of contracts	Value of contracts (million COP)
Local	36,414	1,653,036
Regional	1,605	288,047
National	4,414	2,166,515
Foreign	39	49,799
Total	42,472	4,157,397

The amount and values correspond to what was signed by companies of Grupo EPM located in Colombia (EPM, CENS, CHEC, Emvarias, EDEQ, and ESSA). It includes special contracting (EPM).

Grupo EPM people

Grupo EPM has 14,046 collaborators, of which 53.5% belong to EPM parent company and, of these, 3% are executives, 39% are professionals, 39% are technologists, technicians, and assistants, and 19% are part of the support curve.

Grupo EPM has a level of unionization close to 90%, with presence of 34 union organizations, including the respective sub-directorates at the national level. At the international level, there are 8 labor union organizations. In the business group, there is a total of 20 collective bargaining agreements in force.

Staff and mobility

During the last four years, EPM has been ranked among the top 10 best companies to work for in Colombia, a measurement made among the 100 companies of the Merco Talento Colombia Ranking.

Between 2016 and 2019, the staff grew by 19.63%. During the last period, it increased by 5.05%, mainly due to the coverage of positions authorized by the Board of Directors to guarantee operational safety and execution of infrastructure and business projects, as well as the proper development of the businesses' operations and the contingency of the Ituango hydroelectric project.

In 2019, the plant presented an average internal mobility of 9.04%, compared to the annual occupied plant. This gave the staff the possibility to growth within the organization. The average admission rate was 6.81% per year, with respect to the total plant. It is worth mentioning that 570 people joined the organization, 78 people were promoted, and 236 people changed their position as a result of selection processes.

Employee welfare and benefits

Grupo EPM promotes the quality of life of its employees and their families by opportunely delivering monetary benefits and implementing programs and activities that harmonize their family and work life. In this way, the company promotes spaces for assistance, recreation, sports, and social and cultural projection, in a dynamic that consolidates the sense of belonging and strengthens the corporate culture for the fulfillment of the organizational objectives.

92.49% of the employees of EPM used at least one of the benefits granted by the company. A total of 52,099 benefits amounting to COP 31,028 million were awarded, and 161 people benefited from housing loans amounting to COP 21,001 million. The welfare events were 100% executed during 2019.

In 2019, the EPM Contigo (EPM With You) program was designed and implemented in the company, aimed at those employees with high levels of debt. The company offered trainings and workshops on the proper management of home finances, individual and family support, and financial advice. This program, in which 361 people from the company participated, was a contribution to improving the quality of life of the employees and their families.

ESSA (Santander) fulfilled its welfare plan with the savings proposed by the company and through strategic alliances. For its part, Eegsa (Guatemala) held sports and cultural events that allowed colleagues from different areas to interact. Delsur and ENSA (El Salvador and Panama, respectively) conducted programs to improve the health condition and eating habits of the participants. With various strategies, EPRio (Rionegro, Antioquia) is executing a welfare plan its employees, among others.

EPM, EDEQ, CHEC, Delsur, and Emvarias have special programs aimed at workers in pre-retirement, in order to foster a positive attitude towards their retirement from these companies of Grupo EPM, and allow them to find new horizons of life after completing their active working life.

EPM, EDEQ, and CHEC expanded the possibilities for both sexes to qualify for extralegal maternity and paternity leaves, thus promoting childcare.

Quality of life

The program for the quality of life is based on the identification, assessment, prevention, intervention, and ongoing monitoring of exposure of employees to psychosocial risk factors, both at and outside work. Health and safety at work transcend the traditional concepts and become an important aspect associated with productivity in modern organizations. Therefore, as a contribution to the welfare of the employees and their families, the assessment of psychosocial risks gives the group vital information to focus on the actions that foresee and prevent diseases caused by occupational stress.

The results of the quality of life and psychosocial risk assessment for EPM in 2019 show that 64.09% of the survey respondents is at low or no risk, which means a decrease of 0.13% in relation to the 2018 assessment.

Being above 50%, ranks EPM as a healthy company. In addition, the organization achieved this year the highest coverage with 6,246 responses, which means that it reached 86.07% of its population.



These figures are the result of a work focused on variables such as characteristics of leadership, participation and change management, performance feedback, role clarity, and recognition and compensation.

As for the affiliates of Grupo EPM, it is worth highlighting:

CHEC: all work teams have an action plan for managing organizational climate variables and, in a coordinated way, the dimensions of the psychosocial risk survey.

EDEQ: execution of the entire work plan defined to manage psychosocial risk, which made it possible to keep it at a low level.

CENS: recreational and educational activities aimed at strengthening and raising awareness of the importance of managing psychosocial risk and increasing the culture of self-care.

Delsur: nutritional program and psychological clinic available to collaborators.

Eegsa: beginning of the programs to improve the quality of life, including labor gymnastics, healthy eating, and stress awareness talks, with the participation of 790 workers.

Aguas Nacionales and Aguas Regionales: execution of their intervention plans for the improvement of the quality of life.

Emvarias: design and formulation of the intervention plan according to the results of the quality of life survey.

Training and development

- EPM implemented, for the management of its development process, the organizational knowledge map. It helps identify the general, key, and critical knowledge of EPM and guides the learning actions to consolidate the knowledge that gives the company sustainable competitive advantages or competitive advantages to be explored.
- Curriculum maps were designed for the core processes of the businesses, projects, commercial processes, and fixed assets, with the purpose of ensuring the suitability of the people who participate in the processes once certified their curricular path.

- Relevance has been given to self-training and to the efforts to incorporate virtualization technologies, online learning, discussions, etc., which favor the progressive entry into the digital world of training and development.
- Special emphasis has been placed on leadership development and the conversational model associated with cultural transformation as a strategic goal of the organization.

EPM continued working on the implementation of the virtual campus of Universidad EPM, making improvements such as online access, management of face-to-face and virtual information, preservation of the educational records, and reporting. In addition, transfer of knowledge was performed with people with key skills and the “experts’ table” was started with the center for technical excellence.

In EPM, 7,394 people received training and 54,402 people attended events, with an average of 32 hours of training per employee. In 2019, a strategy of group and individual roundtables was implemented, aiming at strengthening the cultural transformation measures taken in the organization. Similarly, some specific groups of executives received training and the ABC program for executives was launched, in which managers of the work teams also participated.

The knowledge map was designed for 80% of the processes and projects of vision 2025, identifying the key, critical, and general knowledge of EPM, which make it possible to determine the content necessary in the training plans and the educational offer for Universidad EPM and to effectively perform the transfer of knowledge.

The leadership school of Universidad EPM coordinates events to develop leaders’ skills to support their teams, make decisions, and strengthen measures taken, within the framework of the EPM cultural evolution proposal.

Detailed curriculum maps were designed for the maintenance of the water supply and sewerage system and for the maintenance of the gas distribution system. These maps facilitate the specialized training of the people who conduct the processes and define the training routes for each of them. Additionally, the curriculum maps for customer service and project management were updated.

At the CHEC affiliate, it is worth mentioning the following trainings: Interactive training in power distribution networks, qualified by Colciencias as a technological development project; the investments made allow the company an estimated income deduction of COP 42,384 million. And in agreement with the National Training Service (abbreviated SENA as per its acronym in Spanish), progress was made in the construction of a learning environment called Network Training Camp for the training of linemen.

At CENS, 81% of the collaborators participated in the 68 events that took place from the Leadership School, strengthening of competencies, training in OHS, and environmental and laboratory standards.

At ESSA, 98% of the employees participated in the 183 events related to issues aimed at aligning competencies, behaviors, and skills with the organization's strategic plan, as well as at the professional and labor development of employees.

On the other hand, EDEQ carried out the Management Skills program and the Development of the Initial Innovation System program. Aguas Regionales was supported by EPM in training and learning activities in various areas related to know-how, in order to qualify the work performed. Malambo and Aguas Nacionales also fulfilled their training plans, and 52 employees in the operating area were certified in labor competency standards.

At the Eegsa affiliate (Guatemala), the entire management team participated in the Leadership School.



Strengthening the Grupo EPM leader

EPM and its business group consider the role of the leader to be of vital importance. Therefore, during the year, the focus continued to be on this population group through the execution of individual and collective activities focused on the dimensions of the leadership model: self-management, management of others, and results management. Management orientation of closeness was reflected in the execution of the development plans of the Leadership School, in which strengthening strategies were defined to improve the organizational climate and trust between EPM's executives and Gente EPM stakeholder.

- Conversation circles with all levels of the organization aimed at strengthening cultural transformation.
 - Individual support through executive coaching strategies.
- Advanced training in people management, decision making, and business strategy.
 - Development of leadership and decision-making skills.
 - Specialized training in conscious leadership

The participation of 486 executives in the ABC Gestión Administrativa para Directivos program (ABC administrative management for executives) is noteworthy. Likewise, 110 executives were committed to participating in the advanced leadership training, 93 attended the program on electromagnetic wave impact on organizations, and 84 participated in spokesperson programs. Additionally, 220 executives and a total of 1,005 EPM's public servants participated in the 183 conversation circles programmed to discuss about uncertainty, ego, adaptability, and common purpose, in order to become aware of how to move, think, and operate as individuals and as an organization. It is worth noting that 656 team leaders participated in the activities of the Leadership School in events such as ABC and conversation circles.

The following are some of the development strategies implemented in the affiliates:

At **CHEC**, it is worth mentioning the interactive training in power distribution networks, qualified by Colciencias as a technological development project. In agreement with SENA, progress was made in the construction of the learning environment called Network Training Camp for the training of linemen.

At **CENS**, 81% of collaborators participated in the 68 events that took place from the Leadership School, strengthening of competencies, training in OHS, and environmental and laboratory standards.

At **ESSA**, 98% of the employees participated in the 183 events related to issues aimed at aligning competencies, behaviors, and skills with the organization's strategic plan, as well as topics related to professional and labor development of employees.

On its part, **EDEQ** carried out the Management skills program and the Development of the Initial Innovation System program.

Aguas Regionales was supported by EPM in training and learning activities in various areas related to know-how in order to qualify the work performed.

Malambo and Aguas Nacionales also fulfilled their training plans, and 52 employees in the operating area were certified in labor competency standards.

At **Eegsa** affiliate, the entire management team participated in the Leadership School.

All these strengthening strategies contributed to improving the organizational climate and trust between EPM's executives and Gente EPM stakeholder.

Cultural evolution

Within the framework of cultural evolution, discussions are about the emerging future, the transitions from egosystem to ecosystem, resistance to adaptation with responsibility, common purpose, and inner place. More than 100 conversation circles have been organized with members of the board of directors, the management committee, executives, and other public servants under the scheme of pioneers and enablers who shall be multipliers of these practices within a process of systemic intervention.

In 2018 and 2019, the company encouraged to open mind, heart, and willingness to operate from the emerging future. EPM advances in understanding that cultural evolution is always an individual process of realizing, finding meaning, and taking charge of one's own contribution in the organization.

Prototypes have been made on relevant issues of the organization, which are reviewed and adjusted, fostering participation and feedback to obtain results with a high degree of adoption by public servants.

Within this framework, the measurement of conversational capital for EPM was carried out, which establishes the level of development of the conversational network within the organization.

Within the concept of diversity, a pilot program was launched, involving 28 people with various types of disabilities.



Likewise, progress was made in the search for synergies and points of connection in the 35 business development projects through articulation conversations between leaders and sponsors, while the Network of Agents of Change at EPM and at the affiliates of Grupo EPM was created.

Corporate governance

Grupo EPM's corporate governance has consolidated in response to the challenges posed by the public nature of EPM, growth, and consolidation as a group. In 2019, EPM's Board of Directors approved the updating of the governance code of EPM and Grupo EPM, which compiles the practices applied in this area and, among other matters, defines corporate governance as "The system by which Grupo EPM's companies are run, managed, and controlled through a balance between ownership and management, in order to guarantee their sustainability and growth, the rights of their investors, transparency and ethics in their actions, and access to information for their stakeholders."

Corporate Governance Plan

— Long-term initiatives

Long-term initiatives seek to maintain a constant evolution in terms of corporate governance.

For the year, it is worth highlighting the compilation and structuring of corporate governance practices in the updating of the governance code of EPM and Grupo EPM. This is a relevant milestone that allows for the consolidation of a systemic vision of corporate governance and the strengthening of its dissemination in Grupo EPM's companies.

- As a decentralized entity of the municipality of Medellín, EPM participated in the mayoral transition to provide information on fundamental aspects for sustainability (present and future of EPM and Grupo EPM) as well as to facilitate the mayor elect of Medellín to exercise his role as owner.
- The Guide for the nomination of EPM's board members was developed in response to a request from the commission appointed for the mayoral transition by the mayor elect for the period 2020-2023. This document compiled the existing definitions or guidelines for the formation of the board of directors.
- EPM's governance statute, which is incorporated into EPM and Grupo EPM's governance code, was updated. It was approved by the board of directors and a training plan was designed for its dissemination, in coordination with Universidad Grupo EPM, with the support of a supplier with experience in virtual training.

- The regulations for the boards of directors of the international companies ENSA, Ticsa, and HET were approved.
- For the affiliates of the water supply business, the interaction agreement for the adoption of guidelines for execution and management of minutes of the governance agreement was prepared. In addition, an online course was designed in coordination with Universidad Grupo EPM, in order to strengthen the dissemination of the governance agreement in Grupo EPM's companies.
- A training on risk management as a tool for decision making was conducted for the members of the Management Committee of EPM's Board of Directors.
- The strategic risk maps in the national energy companies (power transmission and distribution and power generation businesses) were updated and validated by the respective management committees.
- The assessment of EPM's internal control system was carried out through the Standard Form of Progress Report to Management (abbreviated FURAG as per its acronym in Spanish) established by the Administrative Department for Public Service (abbreviated DAFP as per its acronym in Spanish).

— Practices implemented and framework for action of corporate governance

Corporate governance practices applied annually within the framework for action.

It is worth noting the commitment to compliance with corporate governance practices and the compliance with the principles and obligations of the Relations Framework Agreement signed between the Municipality of Medellín and EPM, which are monitored in the governance report published every year.

- As part of the plan for openness of information during the elections, information on corporate governance was provided with emphasis on the framework agreement that governs the owner-company relationship.
- In October 2019, in accordance with the electoral process, the results of the local elections of the Municipality of Medellín for the period 2020-2023 were announced. Daniel Quintero Calle was elected by popular vote as Mayor of Medellín, and in his capacity as representative of the Municipality of Medellín, he will exercise the role of owner of EPM during the aforementioned period. In the context of the mayoral transition, information was provided to the commissions designated by the incoming municipal administration, through the fulfillment of an exhaustive agenda that was held during 6 days, starting Monday, November 25, 2019, with the presence of the mayor elect.



The following subjects were addressed during the face-to-face sessions:

- Group context
- EPM context
- Visit and context of Ituango hydroelectric project
- Strategy and growth
- Power transmission and distribution business
- Water supply and sanitation business
- Power generation business
- Natural gas business
- Commercial management
- Human resource and technology management
- Legal Affairs and general secretary
- Financial management
- Investment portfolio management (ISA, Adasa, Electricaribe, UNE, among others)
- Corporate governance
- Infrastructure projects
- Communications and corporate relationships management
- Corporate auditing management
- Supply chain management and shared service center
- Innovation and development
- Vision 2025

The management reports of the manager and the board of directors for the 2016-2019 period were submitted, as well as the manager's report in compliance with the law.

- In the formation of the EPM's Board of Directors, there were two updates as of December 31, 2019, with the resignations of Carlos Raúl Yepes Jiménez and Claudia Jiménez Jaramillo. They were accepted by the Mayor of Medellín as of January 1, 2020 through Decree 2412 of December 2019.
- The management of the board of directors for the 2019 period is summarized in the annual corporate governance report, which includes a specific chapter for this purpose.
- As part of the corporate governance practices implemented, the annual assessment of the board of directors was carried out. For the 2019 period, the assessment was assisted by an external consultant.
- With regard to Grupo EPM's shareholding composition, EPM's Board of Directors approved in August 2019 the merger of the affiliate EP RÍO SAS E.S.P. This decision was formalized and registered on December 31, 2019. In September 2019, EPM Chile S.A., an affiliate of EPM in that southern country, agreed to sell its shares at its affiliates Parque Eólico Los Cururos SpA and EPM Transmisión Chile S.A. to AES Gener S.A. and its affiliate Norgener Renovables SpA. EPM completed the purchase on November 27, 2019.
- As for the management of the affiliates, in 2019, the following appointments were confirmed by the board of directors of each affiliate:
 - John Fredy Restrepo Sánchez, Manager of Aguas del Oriente Antioqueño S.A. E.S.P. He started in the position on May 27 to cover the vacancy created by resignation.
 - Juan Carlos Restrepo Perea, President of Tecnología Intercontinental SAPI de CV (Ticsa). Before his appointment, he had four years and eight months of experience at companies of Grupo EPM (his last position had been finance director at Ticsa). As of October 1st, he assumed the position to cover the vacancy created by the appointment of the previous president as vice president of EPM natural gas.
 - Mario Alberto Naranjo Echeverri, Manager of Empresa Eléctrica de Guatemala S.A. (Eegsa). Prior to his appointment, he had 22 years and 8 months of experience at companies of Grupo EPM. As of December 1, he assumed the position to cover the vacancy created by the retirement of the former manager at this affiliate of Grupo EPM. Furthermore, during the term, the administrative structure of the affiliate was reformed. The positions of CEO and deputy CEO were unified; it is worth noting the career of the leaders who held these positions, who, on average, had 22 years of service at the company.

Fundación EPM

In 2019, Fundación EPM made an investment of COP 28,900 million to generate presence and closeness to the communities in the area of influence of Grupo EPM, through social and environmental management actions that improve the quality of life of communities. These initiatives benefited more than 4 million people in the departments of Antioquia, Atlántico, Cundinamarca, and Chocó.

In 2019, thanks to our work with communities and public and private entities, we were able to install 45 water purification solutions in rural education centers through our Agua para la Educación, Educación para el Agua (Water for Education, Education for Water) program, benefiting 4,988 children. Since 2011, the program has installed 722 water purification solutions in 5 departments in Colombia.



During the second half of the year, we implemented the Ambiente para la Vida (Environment for Life) project, whereby we provided socio-environmental support to the Ituango hydroelectric project through the implementation of social and educational actions in the communities downstream of the project, benefiting 42,840 people.

We supported EPM in its commitment to improve communication with the customers and users stakeholder through the Education to Customers and EPM Community project, as well as in the implementation of some programs of the Environmental Management Plan (abbreviated PMA as per its acronym in Spanish) and the Monitoring and Tracking Plan (abbreviated PMS as per its acronym in Spanish) of Nueva Esperanza and Sierra Cocorná projects.

We strengthened our purpose by working together with Emvarias affiliate to develop environmental education activities for the adequate integrated management of solid waste, as well as with Aguas de Malambo affiliate by standardizing the service for 3,530 users, thus promoting access to drinking water and contributing to a payment culture and legality.

We operate the following programs: Unidad de Vida Articulada (Articulated Life Unit—abbreviated UVA as per its acronym in Spanish), Water Museum, EPM Library, and Parque de los Deseos and Casa de la Música, offering educational, cultural, and recreational activities to promote social adoption of knowledge and care for natural resources.



Antioquia Higher Education Scholarship Fund program benefited 542 young people from Antioquia by awarding them a scholarship that covers the cost of tuition and maintenance for higher education studies (associates and bachelor's degrees). This program is developed in partnership with the Government of Antioquia and the Institute for the Development of Antioquia (abbreviated IDEA as per its acronym in Spanish).

Fundación EPM	
Program or project	2019
Agua para la Educación, Educación para el Agua	4,988
EPM Library	395,139
Education to customers and EPM community	157,773
Malambo Source of Life Fund	3,530
EPM Water Museum	97,517
Parque de los Deseos and Casa de la Música	1,800,195
UVA (14)*	1,774,118
Ambiente para la Vida	42,840
Cultura Ciudadana del Aseo (Civic Culture on Cleaning)	18,542
La Sierra Cocorná PMA and PMS	131
Puertas Abiertas (Open Doors)	2,013
Agua Hecha Raíces (Water Takes Root)	885
Antioquia Higher Education Scholarship Fund**	542
Library Network	N.A.
Basic sanitation	N.A.
ICT social adoption	N.A.
Medellín es Memoria Viva (Medellín is Living Memory)	N.A.

* The figures of the Antioquia Higher Education Scholarship Fund correspond to the 2019 scholarship holders. In partnership with the Government of Antioquia and IDEA, the total number of students reached 11,617 in the entire department. Of this number, 1,993 receive support with resources provided by Fundación EPM to the Corporation for the Promotion of Higher Education.

** The information corresponds to the education and culture component of Fundación EPM.

Financial results

Macroeconomic behavior

Grupo EPM operates in Central and South America regions, which have been characterized by changing economic and political environments, as well as tax and regulatory reforms that have affected the financial results of companies.

In 2019, the Colombian economic activity registered a positive performance that consolidated it as one of the best performing economies in the region, reaching a growth of 3.3%, supported by a greater dynamism in domestic demand, mainly in the components of investment in machinery and equipment, favored by the Financing Act and by the high execution of civil works (4G Toll Road Program); as well as in the component of private consumption, driven by relatively low interest rates and a strong growth in remittances. In line with greater dynamism of the economy, the demand for electrical energy grew 4.02% compared to the year 2018. The expansion of GDP occurs in a context of rising unemployment rates, political tensions, widening current account and fiscal deficits as a percentage of GDP, moderation in the growth of the global economy due to the trade dispute between the United States, China, and Europe, and a slowdown in the growth of trading partners, due to idiosyncratic events in some economies of the region.

Regarding inflation, the Consumer Price Index (CPI) registered an annual variation of 3.80%, within the target range established by the Central Bank of Colombia (2%-4%). The increase in prices was mainly due to supply shocks, which affected food prices to a greater extent, as well as to moderate pressures on tradable goods, derived from depreciation of the Colombian peso and an increase in public utilities fees. On the other hand, fuel prices maintained a downward trend due to lower oil prices.

In terms of exchange rates, 2019 was marked by high levels of volatility in the financial markets, which led to the exchange rate of the Colombian peso against the US dollar at historically high levels as a result of the following events: i) external uncertainty associated with political and social conflicts, ii) search for safe haven assets due to the risks of a global economic slowdown in the face of trade tensions with China, iii) a marked current account deficit, iv) social protests in the last quarter, and to a lesser extent, due to the Brexit and the behavior of oil prices. In this way, the exchange rate of the Colombian peso closed the year at COP 3,277 per dollar and registered an annual depreciation of 0.84%.

With respect to the other countries where Grupo EPM operates, economic growth in Chile, Panama, and Mexico was strongly affected by political tensions during the last quarter, by less dynamic domestic demand resulting from the deterioration of business and consumer confidence, and by a contraction in investment, global trade, and the construction sector, particularly in Panama. Guatemala and El Salvador maintained a stable growth path. With regard to inflation, there was a significant drop in prices, mainly due to the slower pace of economic activity and the moderation in oil prices, which led to a reduction in interest rates by several central banks. The behavior of the currencies against the dollar was influenced, as in Colombia, by episodes of volatility in the international financial markets associated with political and social conflicts.

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

Concept	Colombia	México	Panama	Chile	El Salvador	Guatemala
CPI (annual variation)	3.80%	2.83%	0.06%	3.00%	-0.01%	3.41%
PPI/WPI (annual variation)	4.66%	0.84%	NA	6.12%	-0.12%	NA
Exchange rate (end of the year)	3,277.1 COP/USD	18.86 MXN/COP	NA	744.62 CLP/USD	NA	7.70 GTQ/USD
Devaluation/ revaluation (annual)	0.84%	-4.00%	NA	7.03%	NA	-0.49%

CPI: Consumer Price Index.

PPI: Producer Price Index.

WPI: Wholesale Price Index.

NA: Not applicable.

Under this external scenario and a different internal dynamic, Grupo EPM succeeded in maintaining an adequate financial performance as a result of actions that have made it possible to mitigate risks.

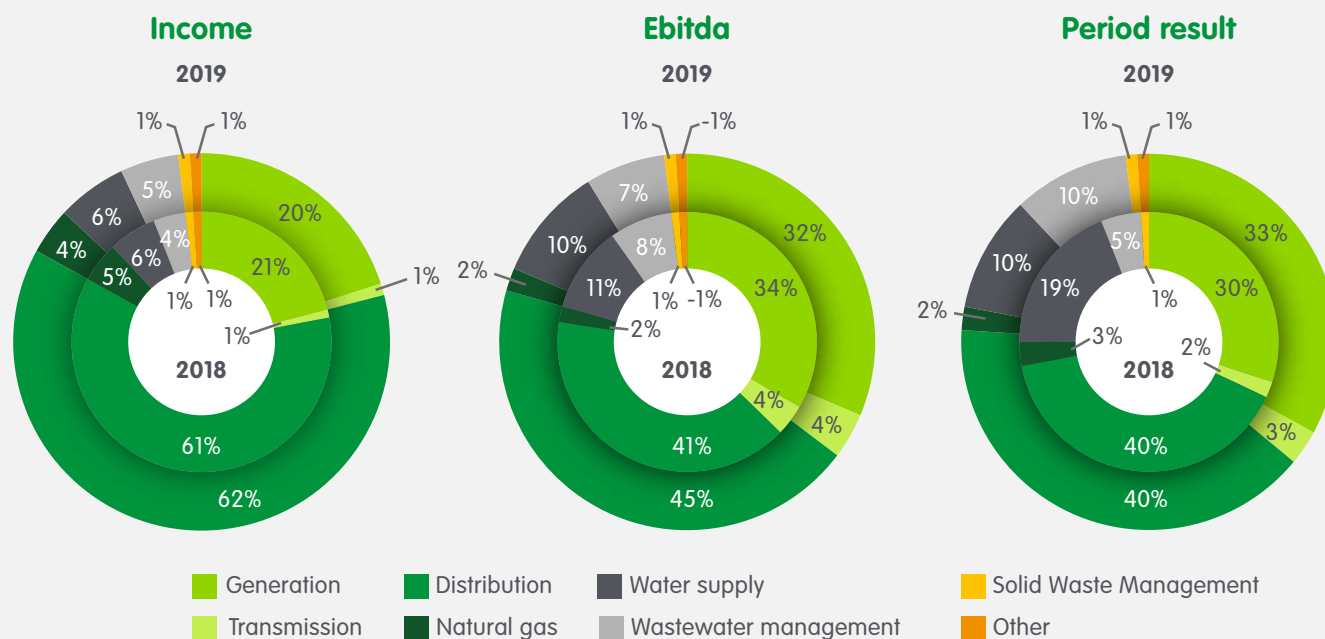
Grupo EPM's results

Grupo EPM has assumed important challenges and has continued with the strategy of guaranteeing financial strength by optimizing sources of financing, prioritizing the sustainability of the core businesses, complying with the investment plan, covering the needs generated by the contingency of the Ituango project, and achieving operational efficiencies.

Grupo EPM obtained COP 18.4 trillion in income, with a 12% growth; COP 6.0 trillion in EBITDA, 17% higher than in 2018; and a period result of COP 3.2 trillion, which shows a 31% increase.

In relation to the approved budget for 2019, there was an overspending of 10% in income, 15% in EBITDA, and 51% in net income.

In addition, EPM parent company obtained COP 8.8 trillion in income, with an 8% growth as well as COP 3.8 trillion in EBITDA, which is 15% higher than in 2018, and COP 2.7 trillion in net profit, which represents a 15% increase.



Regarding income, the share structure by business is maintained. Power distribution contributes 62%, followed by power generation with 20%, water supply with 11%, and the remaining percentage includes natural gas, solid waste management, and other businesses. This same structure is maintained in EBITDA and in the period result.

It is important to note that EPM's results drive Grupo EPM's consolidated financial statements.

In 2019, **power generation segment** presented different dynamics in the hydrological contributions of sources. In the first half of the year, contributions were at 100% of the historical average and, consequently, made it possible to meet the estimated generation levels. Between August and December, mean contributions was 71% of the average, which caused a decrease in hydraulic generation, especially between September and December, as a preventive measure to increase the reserves of reservoirs and reach optimal conditions for the summer of 2020.

Under this scenario, at the end of 2019, power generation segment reported 102% fulfillment in income, which was higher by COP 61,149 million; costs and expenses reported 84% fulfillment, equivalent to COP 445,559 million less; EBITDA reached 114% fulfillment, COP 247,577 million more; and the result of the year fulfilled 152%, with COP 353,074 million of overspending.

Grupo EPM's power generation segment obtained an EBITDA of COP 1.9 trillion, with 9% growth compared to 2018. This is explained by the increase in income in view of the higher energy sales prices in Grupo EPM's companies, since last year, the market was operating under the effects of La Niña, while this year, it was under the effects of El Niño, in the first and fourth quarters. The other income was higher by COP 78,295 million due to the reversal of the asset retirement in 2018 corresponding to the Ituango project. On the other hand, actual costs and expenses decreased due to lower service provision costs, lower restriction payments due to higher stock market prices, availability of system networks that were interrupted in the previous period for the Atlantic Coast, and lower power transmission costs due to fewer units sold to the nonregulated market.

Power distribution segment shows the widest range of operations both nationally and internationally. For this reason, its results are affected by the market dynamics of each of the countries where it operates. It is important to note that the connection of new customers, the increase in prices, the application of the methodology of CREG Resolution 015 of 2018, and the effects of the macroeconomic scenario affected the results for 2019.

Regarding budget, income fulfilled 109%, higher by COP 1.0 trillion; costs and expenses fulfilled 110%, equivalent to COP 933,855 million more; EBITDA met 105%, which is COP 133,237 million more; and the result of the year fulfilled 103%, with an overspending equivalent to COP 39,983 million.

EBITDA in the power distribution segment stood at COP 2.8 trillion compared to the previous year, with a growth of 29% and a variation equivalent to COP 627,063 million, explained mainly by EPM and the affiliate ENSA; by EPM Distribution due to the increase in income from marketing as a result of higher units at a higher price, caused by the retroactive effect of Resolution 015 of 2018 and the recovery of EADE's litigation; and by ENSA due to the combined local effect that favors growth in gross profit, lower growth in operating expenses, and a higher exchange rate. In the other affiliates, the positive variations are mostly explained by the increase in energy demand and the application of Resolution 015 of 2018.

Power transmission segment reported 103% fulfillment in its income, which is higher by COP 8,724 million compared to the budget; costs and expenses showed 98% execution, equivalent to COP 2,425 million less; EBITDA fulfilled 103%, which is COP 7,081 million more; and the result of the year reported 131% of budget performance, with overspending equivalent to COP 24,601 million.

EBITDA in the power transmission segment grew by COP 37,263 million due to the effect of income growth at both EPM and Trelec. For EPM, income growth was the result of the higher PPI and the recognition by the Colombian Ministry of Mines and Energy of the remuneration of assets in the STN; while for Trelec, the increase over the previous year is the result of the exchange rate differential and the increase in the annual transmission fee due to automatic adjustment as well as royalty income, which began to be received in September 2019.

Natural gas segment reported a budget performance of 111%, which is higher by COP 90,868 million; costs and expenses showed an execution of 107%, with overspending equivalent to COP 49,182 million; EBITDA met 159%, which is COP 42,825 million higher; and the result of the year reported a budget performance of 178%, with overspending equivalent to COP 27,440 million.

In comparison with the previous year, EBITDA stood at COP 115,173 million, with a decrease of 5% and a variation equivalent to COP 6,108 million less. This is mainly explained by higher sales to the nonregulated market (NRM) and to the secondary market in 2018, due to the increase in demand for thermal energy in the Atlantic Coast, not only to thermal energy agents, but also to other marketers at higher prices, which resulted in a higher margin.

A relevant fact in the water business is the consideration of budget given the disinvestment of Adasa (Aguas de Antofagasta) that did not materialize due to the social environment in Chile, which largely explains the variations in its indicators.

Water provision segment achieved 169% fulfillment in income, representing COP 501,561 million more; costs and expenses met 160%, with overspending equivalent to COP 303,989 million; EBITDA fulfilled 197%, with COP 292,507 million more; and the result of the period showed 307% execution, with overspending equivalent to COP 207,335 million.

For the **water supply segment**, EBITDA increased 4% in relation to 2018, representing COP 22,413 million. This increase is explained by higher income of EPM derived from greater consumption and the application of the fee path, which also explains the behavior in the wastewater segment.

Wastewater segment reported higher implementation of income by COP 166,037 million, and EBITDA was higher than budget by COP 13,874 million. With respect to 2018, this segment obtained COP 10,247 million more in EBITDA, which is equivalent to a 3% growth.

Solid waste management segment records operations with Emvarias affiliate, which during 2019 reported a higher implementation of income by COP 13,831 million, mainly in the collection service due to the incorporation of 39,923 customers as part of the standardization of users with Grupo EPM's databases. Costs and expenses reported lower implementation by COP 6,875 million due to lower depletion costs due to the extension of the Altaír landfill cell service life. EBITDA shows a higher execution by COP 11,649 million, which is mainly explained by higher income. Period result presents a higher execution by COP 18,229 million due to higher EBITDA and lower financial expenses. Segment's EBITDA grew 85%, which is COP 33,069 million more as a result of higher income and lower costs.

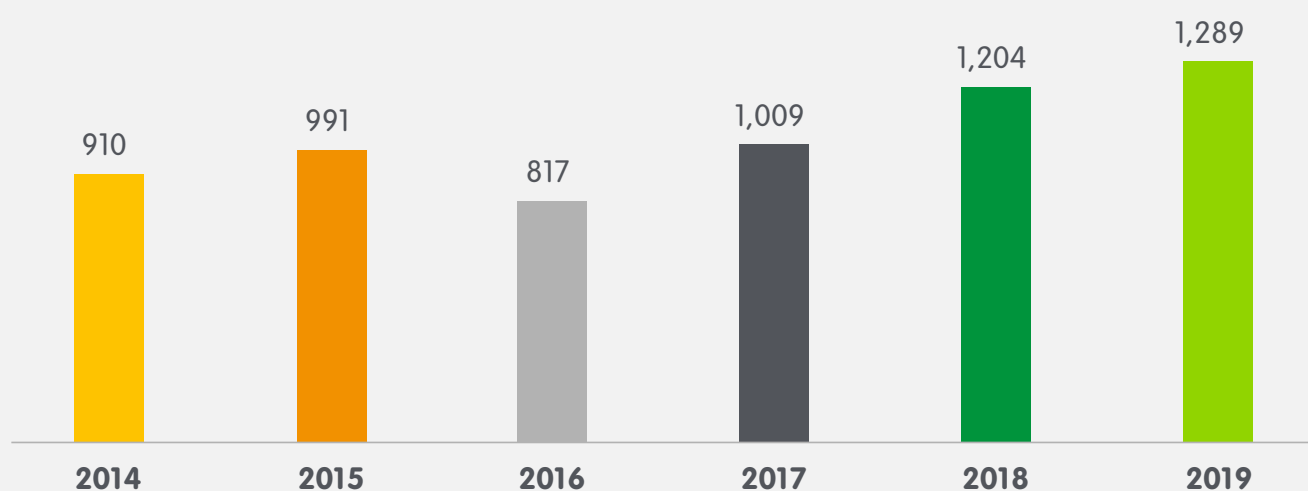
In the comprehensive income for the period, it is worth highlighting income from investments in affiliates and the efficiency in the recovery of income and wealth taxes. Affiliates contribute COP 2.3 trillion to EBITDA, of which international affiliates have a 55% share, and domestic affiliates a 45% share. The structure by business shows a contribution of 86% from energy companies and 14% from water supply companies.

Grupo EPM's net profit was COP 3.2 trillion, with 31% growth, equivalent to COP 738,438 million. This is mainly explained by the net effect of a positive variation in EBITDA by COP 895,115 million, higher non-effective results due to recoveries, lower expenses due to exchange difference, lower costs and expenses to respond to the Ituango contingency, higher income tax expenses, higher financial expenses, and expenses for regulatory assets in the affiliate of the distribution segment in Panama.

— Transfers to the Municipality of Medellín

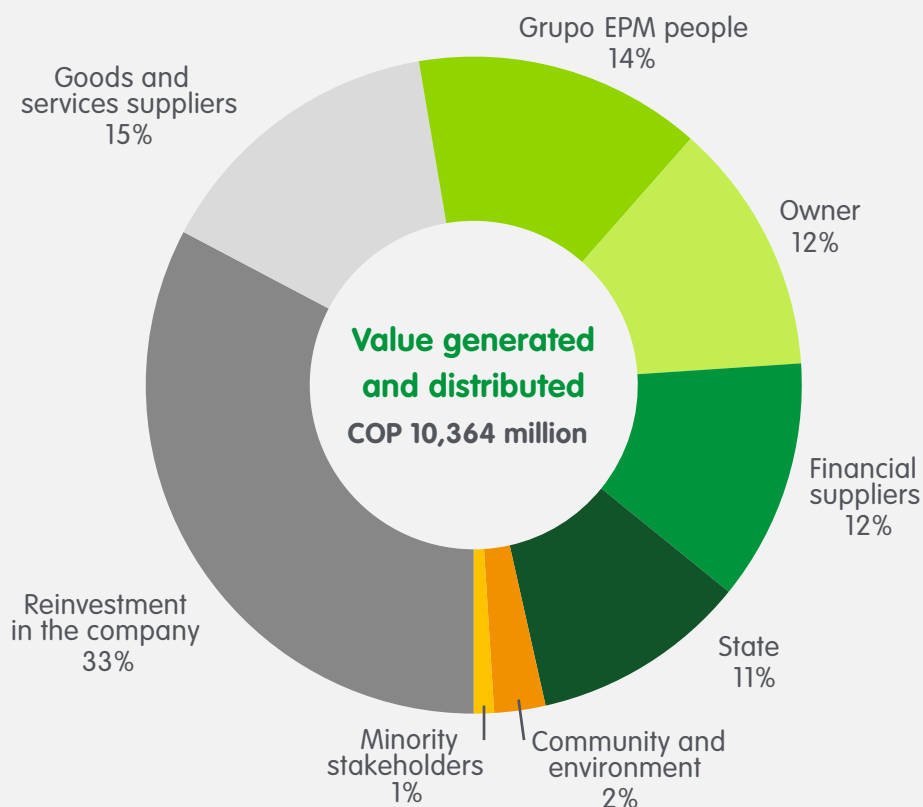
The transfers to the Municipality of Medellín in 2019 amounted to COP 1.3 trillion, of which COP 703,446 million corresponds to ordinary transfers and COP 586,205 million to extraordinary transfers. The variation with respect to the previous year in terms of ordinary and extraordinary transfers is 7%, which is equivalent to COP 85,000 million.

Transfers to the municipality of Medellín
Figures in billion COP



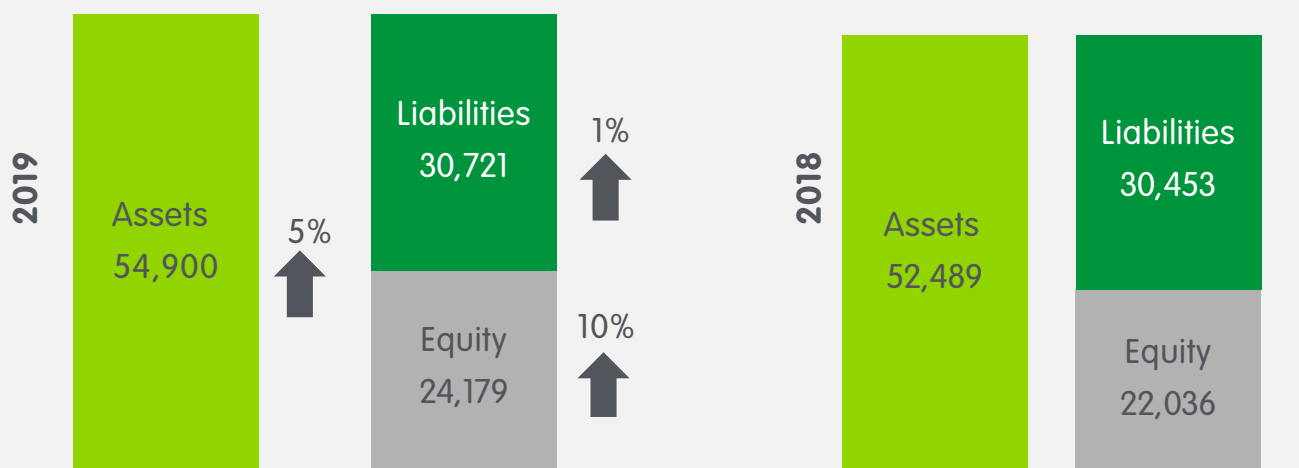
— Value generated and distributed

Grupo EPM generated COP 10.4 trillion in added value during the period, which means a contribution to the development of the territories in which it operates. It should be noted that suppliers of goods and services received COP 1.5 trillion, which is reflected in job creation and economic growth. Likewise, it is important to mention that COP 261,000 million was allocated to communities and to environmental improvement.



— Statement of financial position

Statement of financial position of Grupo EPM Figures in billion COP



Grupo EPM's assets grew by 5%, going from COP 52.5 trillion to COP 55 trillion; liabilities grew by 1%, going from COP 30.5 trillion to COP 30.7 trillion; and equity grew by 10%, going from COP 22 trillion to COP 24 trillion.

Grupo EPM's non-current assets grew by 4%, mainly due to EPM, which represents 92% of the total for this category. With respect to infrastructure projects, Grupo EPM invested a total of COP 3.2 trillion in 2019, of which EPM executed COP 2.2 trillion, national affiliates COP 514,568 million, and international affiliates COP 539,376 million. Ituango hydroelectric project continues to be Grupo EPM's main investment, followed by projects associated with compliance with the service and efficiency standards required by the regulatory authority in the water supply business and in the power transmission business.

With respect to the national energy affiliates, it is worth highlighting the investments that contribute to the improvement of quality and coverage of service, through the construction and modernization of substations and lines, and through the expansion and replacement plan of the system. Similarly, it is worth noting the investments that the affiliates have been making to increase coverage in rural areas.

Regarding the international energy affiliates, investments were oriented to the implementation of projects for substations and lines, loss reduction, coverage expansion, and quality improvement for new customers and users.

In line with established liquidity strategies, liability management, especially that associated with debt, became a key issue for Grupo EPM. It is worth highlighting that EPM successfully made its fifth venture into the international capital market with the placement of bonds equivalent to USD 1,382 million, including bonds for USD 1,000 million and Global COP bond for COP 1.2 trillion. With these resources, EPM prepaid an amount of USD 1,035 million in credit balances with international commercial banking, in addition to the advance repurchase of COP 1.1 trillion, corresponding to the international bond issue executed in January 2011 and maturing in 2021. This resulted in an improvement of debt profile by passing the average life of debt portfolio from 5.41 to 7.08 years.

Derived from the debt management operation, the early settlement of financial derivatives amounting to USD 535 million was carried out, which generated actual income of USD 38 million.

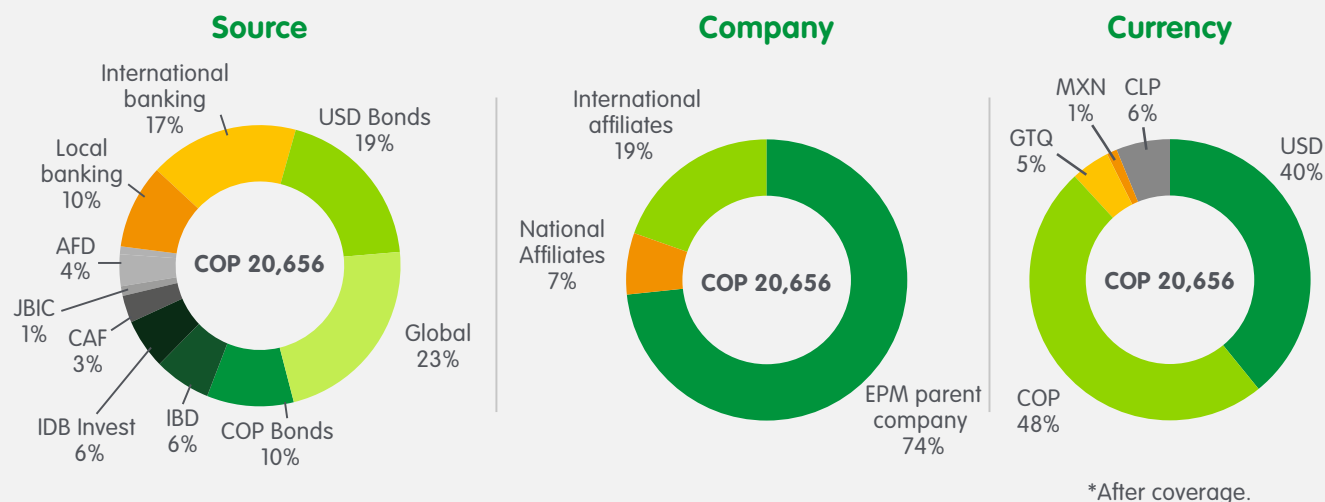
It is also worth noting the advance payment of the USD Bond maturing in July 2019 for USD 500 million, as well as the improvement in financial conditions, in some credits in force with local and international commercial banking.

Additionally, the financing requirements for Grupo EPM's affiliates were managed opportunely, especially the operation in Guatemala of Grupo Deca for USD 100 million and in local affiliates for COP 173,500 million.

Regarding credit risk rating agencies, in 2019, EPM continued with its practice of keeping them widely informed in order to provide them, in a transparent and comprehensive manner, with the elements that would allow them to develop their decision making in a clear way and thus keep their trust in the company. The international investment grade level was maintained by both rating agencies, Moody's at Baa3 with a negative outlook and Fitch Ratings at BBB international level and AAA national level, both on rating watch negative.

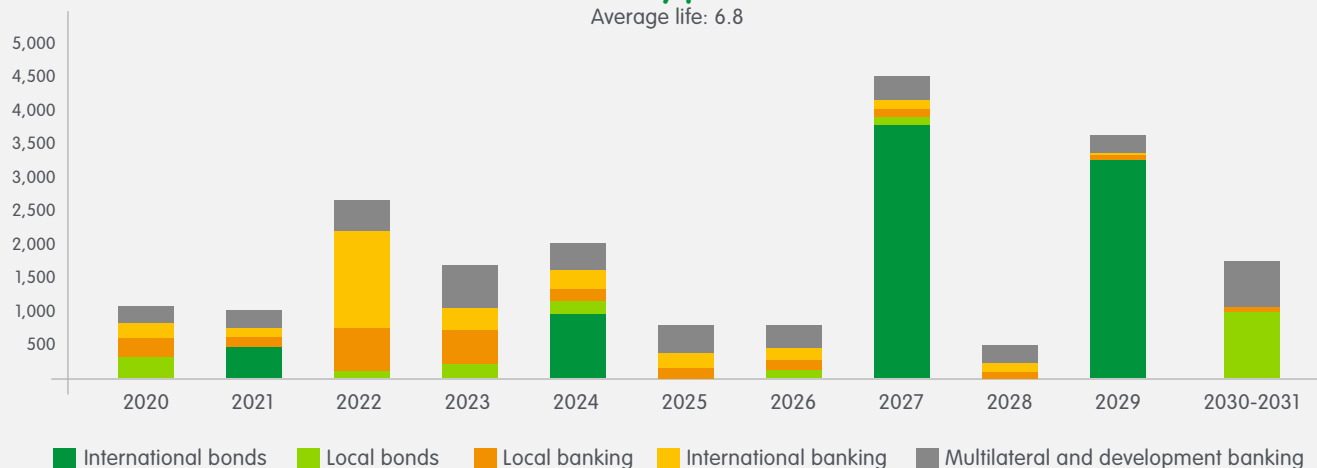
Local affiliates and Adasa performed positively as the ratings were maintained at AAA for the local energy affiliates, A for Aguas Regionales, and AA- for the local rating in Chile for Adasa. In addition, Emvarias rating was again obtained, reaching a level of AA+ with a stable outlook.

Debt profile



Maturity profile

Average life: 6.8



Grupo EPM's liabilities grew by 1%, with EPM representing 74%. By December 2019, EPM Business Group's Debt/EBITDA indicator rose to 3.49 and thus fell within the established limit of 3.5, improving on the value obtained in 2018 (3.86), since Grupo EPM's EBITDA exceeded COP 6 trillion, which is the highest figure in its history, with a growth of 17.5%. With this EBITDA, the company would take 3.5 years to pay its current financial debt, which is close to COP 21 trillion.

— Financial indicators

Indicator	Previous	Implemented	Budget	Execution %	Var. %
Liquidity					
Current ratio	0.77	0.99	1.26	78	28
EBITDA	5,115,430	6,010,545	5,243,810	115	17
Covenant	3.86	3.49	3.53	99	-10
Return					
Return on equity	11.6%	14%	9%	151	24
EBITDA margin	31%	33%	31%	106	6
Operating surplus	3,593,899	4,969,746	3,881,950	128	38
Operating margin	22%	27%	23%	116	23
Net margin	15%	17%	13%	137	16
Indebtedness					
Indebtedness index	58%	56%	55%	101	-4
Financial indebtedness	41%	40%	38%	104	-3

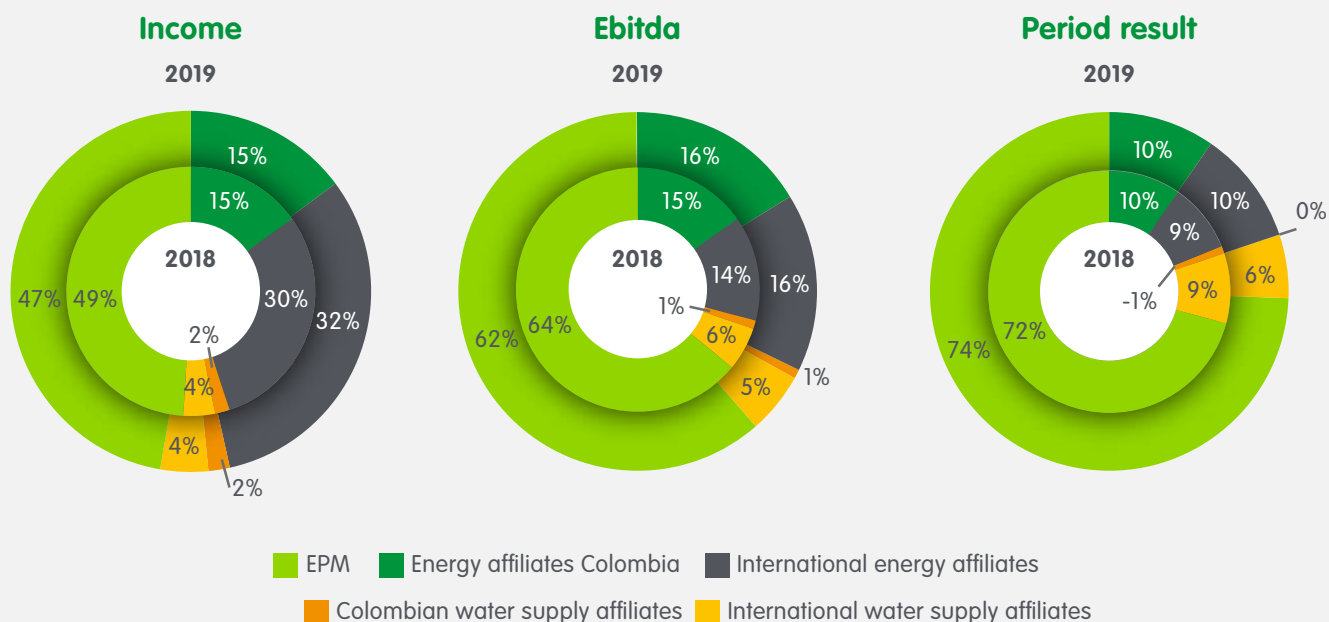
— Performance and evolution of investments

EPM received resources amounting to COP 752,305 million from its affiliates and subsidiaries, of which controlled companies paid dividends worth COP 654,583 million and those non-controlled COP 97,722 million.

The carrying value of portfolio investments at controlled and non-controlled companies amounts to COP 11.8 trillion at the end of 2019.

During 2019, EPM capitalized HET by COP 178,469 million, EPM Mexico by COP 74,661 million, Aguas de Malambo by COP 12,000 million, and Aguas de Oriente by COP 1,211 million.

With regard to Grupo EPM's EBITDA, 62% is generated by EPM and 38% by Grupo EPM's national and international companies.



Grupo EPM continued to consolidate its core businesses and affiliates. The merger of EPRio by EPM stands out as a beneficial synergy strategy for the Eastern Antioquia market.

— Taxes and contributions

For EPM, tax compliance is a minimum legal requirement. EPM understands that meeting mandatory commitments is the basis for acting in a socially responsible manner.

The following table presents EPM's contribution to the nation, municipalities, departments, and monitoring and control entities, among others, with taxes and contributions, during the 2019 and 2018 periods:

Tax or contribution	2018	2019
Income and ancillary taxes (current and deferred)	605,235	174,292
Income tax for equity (CREE)	0	-25,936
Tax surcharge CREE	0	0
Equity tax	0	0
Wealth tax	0	0
Valuation	1,358	4,694
Industry and commerce tax	47,878	50,014
Tax on financial transactions	43,447	37,094
Control and auditing fee	18,504	17,923
Unified property tax	13,991	12,167
Motor vehicle tax	12	14
Contributions	21,504	20,809
Environment – Act 99 of 1993	89,328	81,325
Use of natural resources tax	4,081	3,662
Pollution of natural resources tax	8,482	9,442
Fund for the Electrification of Non-interconnected Areas (abbreviated Fazni as per its acronym in Spanish)	28,013	28,729
Fund for the Electrification of Interconnected Rural Areas (abbreviated Faer as per its acronym in Spanish)	0	0
Gas promotion fee	4,085	3,742
Ministry of Communications and/or Communications Fund	183	170
Stratification Committee - Act 505 of 1999	962	1,373
Motorway toll	437	433
Other taxes and contributions	13,706	10,286
Total	901,205	430,234

Adjustment and calculation of the provision for income for the taxable year 2019 was carried out in accordance with the tax legislation in force for that period.

The breakdown of the income tax provision, by current and deferred income tax, is COP 600,558 million and COP 4,678 million, respectively.

In this regard, among other aspects, this provision considers the following:

- The amendments introduced by the Financing Act, Act 1943 of 2018, which was in force during 2019.
- The Colombian holding company (CHC) regime, incorporated in the aforementioned Act 1943, which implies that dividends received from international affiliates shall be considered as exempt income.
- In 2018, the recovery of deferred tax due to the decrease in income rates in future years, determined in said Financing Law.
- Apply the tax benefits indicated in the tax statute for investments in science, technology and innovation, capitalization of water supply and sewerage companies in the region, as well as for power generation from nonconventional sources, which contributes to reducing the tax burden of the entity within the framework of the law.
- The particular conditions granted by the legal stability agreement for the activity of power generation in tax regulations in force for 2008-2028. One of the most significant of these conditions is the stability of the regulation that allows for the exceptional use of 40% of investments in fixed assets as a deduction in the income tax return, the income tax rate, and the equity tax, among others.
- Situations associated with the contingency of the Ituango hydroelectric project and its tax impact.

— Engagement with investors

EPM maintained its practices of transparency before the international financial market. During the year, it provided updated information on the company.

Some of the most representative practices in this sense include: Quarterly teleconference for the presentation of financial results in two versions (Spanish and English), annual plenary meeting with local and international financial public, and continuous attention to the concerns of local and international investors. In addition, for the seventh consecutive year, the IR (Investor Relations) recognition was achieved for voluntarily adopting the best practices in disclosure and investor relations required by the Colombian Securities Exchange.

Financial strength

EPM has sought to maintain its financial indicators at levels that will allow the company to maintain its strength. This principle has been preserved, even with the changing levels of risk that the company has been facing.

In 2018, EPM faced a different internal dynamic, derived from the contingency of the Ituango hydroelectric project, which changed the company's risk scenario and generated a perception of uncertainty in aspects associated with EPM's financial sustainability. This situation forced a rethinking of the established goals.

The strategic redefinition continues to focus on financial strength. A new road map was established to ensure sources of resources. For this purpose, a combination of sources was defined that incorporates credits, optimizations within Grupo EPM, and alienation of some of the assets acquired in the past in order to maintain adequate liquidity levels, so that the company can replace the postponement of the entry of income from the Ituango project, as well as cover the additional investment needs derived from it, the assistance to the affected population, and the fulfillment of financial obligations. In addition, these resources will be used to make the infrastructure investments required to ensure the continuity of business operations, control indebtedness indexes, and maintain the investment grade by the risk rating agencies.

— Liquidity strategy

Grupo EPM's liquidity strategy focused on undertaking actions such as debt rescheduling, disinvestment of assets in Chile (Parque Eólico Los Cururos and EPM Transmisión Chile), claiming the Ituango policy, optimizing costs and expenses, and postponement of non-priority investments, in order to guarantee sources of resources that will enable the company to cover the needs arising from normal business operations and ensure the implementation of the infrastructure investment plan, with the aim of continuing to provide quality public utilities.

In 2019, Grupo EPM obtained an internal generation of funds (abbreviated GIF as per its acronym in Spanish) by COP 6.2 trillion and EPM by COP 3.9 trillion. These resources come from the dynamics of its operation and other sources that have allowed the financing of the investment plan and other obligations of Grupo EPM.

Claim for policies

In 2019, the renewal of Grupo EPM's insurance program reflected the impact on the cycles of the global reinsurance market, with strong increases in rates, especially for high claims policies, both worldwide and in our own case, with strong increases of up to 40%. The actions carried out made it possible to obtain compensations derived from the event at Central Playas for a value of nearly USD 6 million, out of a total of USD 35 million paid by the insurer. It is estimated that by 2020, the claim can be closed for an additional value of nearly USD 3 million.

As for the compensation received during 2019 for claims under the other policies of the program, approximately COP 7,000 million were received for EPM and COP 6,400 million for the national affiliates.

For the Ituango project contingency, an advance payment was received in May for the claims of affected third parties under the noncontractual civil liability policy amounting to COP 6,168 million.

With respect to the all-risk construction and assembly policy, on September 16, 2019, coverage was confirmed for damage to the project's works and equipment. Therefore, on December 4, 2019, Mapfre insurance company made a first advance payment of USD 150 million corresponding to consequential damage in civil works.

Disinvestments

At the request of EPM's Board of Directors, an analysis of EPM's investment portfolio (shareholdings) in Colombia and abroad was carried out to determine those disinvestments that should eventually be made and thus generate resources for EPM in the context of the contingency of the Ituango hydroelectric project.

EPM's Board of Directors authorized the initiation of the necessary procedures to alienate Grupo EPM's shareholdings in ISA, Adasa, Parque Eólico Los Cururos, EPM Transmisión Chile S.A., Río Aures, and other minority shareholdings such as Promioriente and Gasoriente.

Upon authorization by the board of directors, the procedure was carried out before the Council of Medellin for the alienation of EPM's shareholdings in Colombia, which concluded with its approval through Agreement 090 of 2018.

Disinvestment in Adasa:

Although binding offers were received in November 2019, the sale process was suspended.

Disinvestment in Parque Eólico Los Cururos SpA and EPM Transmisión Chile S.A.:

In 2019, the transaction was closed for USD 142.8 million, of which USD 138 million was received in November 2019 and USD 4.8 million in February 2020, derived from the price adjustment agreed with the buyer.

Disinvestment in ISA:

14,881,134 shares were sold, whereby EPM received a total amount of COP 233,633 million. The number of shares awarded is equivalent to 1.34% of ISA's shareholding.

Disinvestment process of Aguas de Antofagasta – Adasa

- During the first half of 2019, studies were carried out comprising due diligences (financial, accounting, tax, legal, technical, regulatory, and market), which provided inputs for the modeling and implementation of the disinvestment process.
- The most suitable non-binding offers submitted by interested investors were selected. They were given access to the data room in addition to a management presentation and site visit.
- Although binding offers were received in November 2019, the sale process was suspended.

Disinvestment process of Parque Eólico Los Cururos and EPM Transmisión Chile.

- In September 2019, after a competitive process, EPM Chile S.A. signed a promise to purchase agreement with Norgener Renovables SpA and AES Gener S.A. for the shares of Parque Eólico Los Cururos and EPM Transmisión Chile. At the end of November, the transaction was completed for an amount of USD 138 million (in February 2020, USD 4.8 million were received as a result of the price adjustment agreed with the buyer).

Disinvestment process of ISA

- During the first stage of the alienation process of EPM's shareholding in ISA, aimed at special conditions recipients, 14,881,134 shares (1.34% of ISA's shareholding) were sold, for which a total amount of COP 233,633 million was received.
- In the second stage, 8.66% of the shareholding in ISA was offered for sale and the pre-qualification conditions and the auction mechanism were established so that potential investors could submit their bids. However, the potential investors withdrew from the process due to the political and social uncertainty in certain countries where ISA operates, requiring a longer deadline than December 31, 2019, to carry out the necessary analysis and decide on the submission of a bid. Nevertheless, this was the maximum time frame provided for this disinvestment as established in Agreement 090 of 2018 of the Council of Medellin. For this reason, on December 31, 2019, EPM completed the program for the alienation of its shareholding in ISA.

Disinvestment process of Gasoriente and Promioriente

- In accordance with the strategy defined for alienation, EPM acquired all of the shares that its affiliate Electricidad de Santander (ESSA) held in Gasoriente y Promioriente, and subsequently initiated the sale process in accordance with the provisions of Act 226.
- The first stage of the alienation of shares in Gasoriente began in June and ended in August. In this stage, 50,000 shares were sold, equivalent to COP 144.6 million. Subsequently, the auction corresponding to the second stage of the alienation program was held in November and all the shares offered were sold for approximately COP 35,000 million.
- Regarding Promioriente, the first stage of the alienation program began in October. A total of 50,000 shares were sold for COP 24.4 million. The market was informed of the program completion, taking into account that this stage ended on December 30 and that the deadline for executing the alienation program was December 31.

Integrated Model of Planning and Management

2019 is the second year in which EPM makes progress in the process of closing the gaps identified in the self-assessment for the implementation of the Integrated Model of Planning and Management (MIPG for its acronym in Spanish). The gaps that obtained a rating of 60 points or less in the self-assessment received special management attention.

Additionally, during the first quarter of 2019, using the FURAG II² tool, the first measurement of progress in the implementation of MIPG based on 2018 was carried out. In this measurement, EPM stands out as a benchmark entity among the peers in its comparison group.

With a score of 77 in FURAG II, EPM is the benchmark company in the peer group to which it was compared. The following chart shows the FURAG II rating obtained by EPM as seen by the 7 dimensions of MIPG:

SIGEP code	4256		
Index	Score by entity	Peer group average	Peer group average
Institutional performance index	77	55.1	77
D1: Human resources			
D2: Strategic planning	72.6	52.5	72.6
D3: Result-oriented management with values	77.6	54.7	77.6
D4: Result assessment	72.1	52.3	72.1
D5: Information and communication	79	53.6	79
D6: Knowledge management	79.2	53.6	79.2
D7: Internal control	75	41.5	75

It is observed that EPM continues to be a benchmark among the peer group to which it was compared in the MIPG dimensional view. Dimension 1, Human Resources, was not assessed in FURAG because EPM does not apply the public office career. Despite the comparative results, EPM is aware that there are significant opportunities for improvement in some of its policies.

² FURAG: Standard Form of Progress Report to Management.

Some of the organization's progress on the MIPG are summarized below:

1. Harmonization of EPM code of ethics vs. MIPG code of integrity.
2. Structuring of the outline of defense lines at EPM.
3. Harmonization of the concepts of stakeholders and value groups of MIPG with EPM's stakeholders.
4. Analysis and proposal for the definition of digital government and document management policies at EPM.
5. Development of the survey for ITA³ to EPM.
6. Completion of FURAG 2019.
7. Creation and activation of the Integrated and Coordinated Meeting (abbreviated RIC in Spanish) of MIPG, as a mechanism for the coordination and progress of MIPG work plan.
8. Development of the MIPG training plan by EPM's public servants.
9. Benchmarking presentation of the implementation of MIPG before the Management Committee (Institutional Committee for Management and Performance).
10. Structuring and implementation of MIPG communications plan with the business organization.
11. Clarification of the scope of MIPG with the Administrative Department for Public Services (abbreviated DAFP in Spanish).
12. MIPG in sessions, Management Committee (Institutional Committee for Management and Performance) and the Management Committee (Institutional Committee for Internal Control Coordination), roles and responsibilities regarding MIPG, definition of the scope of the Management Committee in document management.
13. Articulation of the integrated planning cycle to MIPG and harmonization of MIPG policies with the different instruments of the regulatory model equivalent for EPM.

Improvement plans: Avanza application has registered 12 plans with a self-assessment origin (MIPG). Four of these plans have been completed, which are related to audit planning for integrity strategies, attention to gaps in public disclosure (ATC), plan for closing gaps in human development activities and in information technologies and accountability. Furthermore, eight plans are being implemented in relation to:

- Procedure indicator, public offering (abbreviated OPA in Spanish), and services.
- Inventory of information components.
- Global audit opinions.
- Complete human resource training plan.
- Incomplete registration of information in SIGEP.
- Improve aspects related to organizational culture.

³ *Transparency and Access to Information Index.*

- Document retention schedules.
- Migration of the IP addressing scheme to IPv6, which is more scalable and extensive.

The following are the relevant results obtained for each of the dimensions:

Human resource dimension

This dimension was not assessed under the FURAG II measurement. However, actions have been implemented based on the self-diagnosis and its overall rating was higher than 60 points out of 87.4. It comprises the following policies:

— Policy of human resource strategic management

Points for improvement were identified in the planning and admission actions. During 2019, communication strategies have been carried out in the planning process about the responsibility in updating the information on the resumes in SIGEP. In 2019, for the admission process, progress was made in updating data on public servants in the HCM tool through self-service, in order to improve traceability in the work history.

According to the information registered in the HCM⁴ tool, as of January 30, 2020:

- Active staff: 7,970
- Active apprentices and interns: 395
- Active public servants: 7,575
- Public servants with registered degrees: 5,215
- Percentage of public servants with registered degrees: 65%
- Public servants (2,360) and apprentices and interns (395) without registered degrees: 2,755
- Percentage of public servants (30%) and apprentices and interns (5%) without registered degrees: 35%
- Average number of registered degrees per public servant: 2

In the areas associated with **information management**, key staff indicators were defined for admissions, turnovers, promotions, transfers, assignments, secondments, study leaves, absenteeism, demographic data, pre-retirements, and reinstatements. There are employees responsible for these indicators and the periodicity of their measurement has been defined.

⁴ HCM: Human Capital Management.

The **training** plan included topics associated with citizen service (customer service), online governance (digital transformation), financial management, organizational culture, human rights, sustainability, information technology management, innovation, planning, and public procurement. Similarly, the training plan included the reorientation of public servants through the development of topics defined by mechanisms such as Naturalmente (Naturally) or El Valor de lo que Hacemos⁵ (The Value of What We Do). In these spaces, public servants have been trained in matters related to the organization and its endeavor, as well as aspects related to the public servant.

In 2019, internal events were held that seek to incorporate public service into EPM culture through the design of the **plan for cultural transformation**, such as conversation circles for executives, pioneers, enablers, and other audiences, in which topics discussed include the public servant, the measurement of the conversational capital indicator, and the incorporation of innovation strategies through the Creando Ando (Creating) initiative, among others. Activities were also developed in relation to the Bilingualism Act (Act 1651 of 2013) and Estado Joven (Young State) program.

Finally, the structure of the exit interviews was defined, as well as the repository for preserving the information that has been documented in each one of them. By 2019, 48% of the population that has left the organization during this period has been reached.

— Policy of integrity

No improvement actions were generated to be addressed by the organization. On the contrary, progress is being made in the action plan related to the internalization of the code stipulated at EPM.

Strategic planning dimension

The result of this dimension through the FURAG II assessment was 72.6, while the self-diagnosis obtained a score of 96.3. This dimension is comprised of the planning policies and the anti-corruption plan; its results are detailed below:

⁵ Some of the topics addressed include updating the strategic planning components, which is being developed from each of the businesses around operational safety, the balance of the Ituango hydroelectric project during the first year under the defined dimensions, as well as other projects that the organization is currently developing under its future vision. In addition, online courses have been developed, including the "Integrated Model of Planning and Management (MIPG)" and "Work Inclusion" courses, which must be taken by all EPM's public servants.

— Policy of planning

Between 2018 and 2019, the company worked on the review and adjustment of the corporate risk map and of the strategic planning as a result of the impacts generated by the contingency of the Ituango hydroelectric project. The purpose of this action was to ensure business continuity and sustainability of Grupo EPM. Both the risk map and the strategic planning will be continuously reviewed and adjusted according to the evolution of the situation and the business context.

As for the involvement of citizens and stakeholders in the diagnosis and formulation of plans, programs, or projects of the entity that are of interest to citizens, it is found that, due to the nature of the company subject to competition, an open exercise with citizens is not considered. However, it is applicable in the case of plans and projects related to the territorial integration model and public hearings for the development of projects.

— Policy of the anti-corruption plan⁶

The score obtained in the application of the 2018 self-diagnosis was 94.3. Although FURAG II did not show results for it, EPM made progress in the following aspects in 2019:

- Presentation of the corruption risk map to the Audit Committee on February 22, 2019. An assessment of corruption risks is being carried out by the Vice Presidency of Corporate Auditing, which is included as a regular internal audit activity of the entity.
- Structuring and periodic monitoring of the Anti-corruption and Citizen Services Plan, as well as its publication. Management is carried out through the different control and attention mechanisms available for the detection of corruption events (Disciplinary Control Office, Corporate Audit, Work Coexistence Committee, Compliance Unit, and ethics hotline: Transparent Contact).

⁶ The Anti-Corruption and Citizen Services Plan (PAAC) (in compliance with Article 73 of Act 1474 of 2011).

Result-oriented management with values dimension

The result obtained in FURAG II for this dimension was 77.6, and that of the self-diagnosis tool indicates a score of 89.8. This dimension includes policies related to: Organizational strengthening and process simplification, digital security, regulatory improvement, budget management, digital government, legal defense, citizen service, procedure rationalization, and citizen participation. The management carried out in 2019 is summarized below:

— Policy of organizational strengthening and process simplification

A process model for EPM is currently available. The last update was approved on September 9, 2019 by the Corporate Core Committee, driven, among other aspects, by the requirement of control entities and the implementation of MIPG. For the design and management of processes, the methodology for the design and adjustment of processes has been applied, based on the international reference BPM⁷, whose purpose is to guide the management by processes to enable the achievement of the business strategy.

During this period, the functions manual by department and its approval by EPM's Board of Directors were documented.

Furthermore, adjustments were made to the organizational structure to respond to the contingency of the Ituango project, while the variation in the composition of the job structure and the dynamics of process management led to the need to design and/or adjust job descriptions. For instance, the creation of exclusive positions for the occupational medical reinstatement of public servants, the creation of a business advisor position, as well as positions for the implementation of the Work Inclusion within the Organization program.

— Policy of budget management and efficiency of public expenditure

- The budget management carried out by EPM is consistent with the principles of efficiency and effectiveness of public expenditure, in line with the actual value of contracts and the corresponding budget, amounts, and deadlines.
- For a correct registration of economic facts, a training plan on the IFRS accounting standards is being developed, which applies to all the company's public servants.

⁷ BPM: Business Process Management.

- In order to comply with Article 14 of Act 1474 of 2011, the information associated with budget management process was updated on the Transparency section of the entity's website, with the publication of budget modifications made during 2019.

— Policy of digital security

Some milestones stand out in the framework of the Centinela (Sentinel) project, which aims to manage information security and cybersecurity for Grupo EPM, in order to securely deliver services and information to its different stakeholders and to enable their integration and growth. These milestones include the definition and creation of the new process called Digital Security and Continuity of Technology Services, and the dimensioning of staff for the new process and its document structure. In terms of policies, it is worth noting the following progress in 2019:

— Policy of digital government

Entity's procedures and other administrative procedures (OPAS) associated with the mission processes were refined.

In the management and planning of information components, the information components were conceptualized in line with the model and the road map of information management.

In the transition plan from IPv4 to IPv6 protocol, the diagnosis for the transition from Internet Protocol version 4 to Internet Protocol version 6 was made. Based on this, the IPv6 design proposal for the Demilitarized Zone (DMZ) was prepared, as well as the next steps for the implementation of dual stack.

— Policy of legal defense

Sessions of the Conciliation Committee were held at least twice a month or whenever required during the year. The committee is comprised of public servants at the management level who are appointed for this purpose. The study and assessment of the legal proceedings against the entity was also carried out, identifying the causes of the conflicts and proposing corrective measures.

— Policy of regulatory improvement

EPM's internal regulatory model was updated to limit it to the directives defined by the Corporate Core for Grupo EPM and, in turn, to determine the applicability scope of the business policies, guidelines, and rules.

— Policy of citizen service

- Regarding disclosure of information to citizens, the information suggested by the MIPG was published in visible places and in formats other than the electronic one.
- Information was disclosed to citizens regarding offices and opening hours, defined hotlines, transactions over the web and phone, free issuance of certificates using the self-service modules, contact emails, links to access information on public accountability, current information about EPM, department responsible for addressing RCCs⁸, and schedule of activities in the services.
- Educational videos were shared regarding access to prepaid water and energy programs, use of EPM app and supported transactions, explanation of investments made in sanitation in the metropolitan area and their repercussions on rate variation, and key messages on bill changes. Moreover, a solution to doubts called **chatbot EMA**, was implemented in EPM's website. This solution is an automatic assistant that helps users with their procedures and addresses inquiries regarding values in bills and coupon for bill payment.
- Certification was obtained in Clear Language, a course taught by the DNP⁹, thus complying with the four-step procedure design, in accordance with the provisions of the DAFP¹⁰, and with the required structure to make them available on the website of procedures and services.

— Policy of procedure rationalization

The company's formalities and other administrative procedures (OPAS as per its acronym in Spanish) associated with its mission processes were refined.

⁸ RCCs: Requests, complaints, and claims.

⁹ DNP: National Planning Department.

¹⁰ DAFP: Administrative Department for Public Service.

Through consultancy services, advice has been received for the interpretation and due application of CREG Resolution 080 of 2019, “by which general market behavior regulations are established” and the following behavior standards are defined: compliance with the purposes of said regulation, market transparency, prioritization of users’ interests, independence in decision-making, free access to essential commodities, competition in the market, and adequate provision of the service. The resulting information is being studied to be later implemented in the company’s processes and thus in all impacted procedures.

— Policy of citizen participation

With respect to progress made in the implementation and maintenance of this policy, the diagnosis of citizen participation has been shared with those directly responsible for the engagement plans.

Result assessment dimension

— Policy of institutional performance monitoring and evaluation

Progress was made in the following activities:

- Through the development of the Alignment initiative, the company has been working on aligning EPM’s indicators from the operational to the strategic level.
- The percentage of compliance with the business objectives was calculated based on the BSC results.
- The efficiency and effectiveness of the business plan initiatives were evaluated.
- The strategy map and its indicators were reviewed and adjusted in accordance with the strategic planning defined as a consequence of the contingency that occurred in the Ituango hydroelectric project.

In response to the gaps, improvement actions were documented. These actions account for aspects to be improved which were defined based on accountability and each of the five phases established in the Single Accountability Manual (version No. 2 of February 2019) issued by the DAFP. Thanks to the actions taken, the following was achieved:

- The integral procedure for carrying out the accountability exercise was defined.
- The roles and those responsible for the comprehensive coordination of the accountability exercise (government) were established.
- The Review Guideline was adjusted by the Directorate of Systems Management at EPM.

As for the improvement plans, the indicators for each vice presidency related to plan effectiveness, deadline, delay, and reformulation were established, in order to raise more awareness among those responsible for the organization's continuous improvement.

Information and communication dimension

Progress made in 2019 is mainly focused on document management. As part of the Document Management Consolidation project, a new version of the Pinar¹¹ was developed. This new version was adjusted to the technical and legal terms required by this document. Regarding policies, progress was made mainly in:

— Policy of document management

The progress made regarding the planned actions is summarized below.

- EPM's document management policy was analyzed and a proposal was developed, in accordance with the guidelines set forth in the Integrated Model of Planning and Management.
- The updated Document Retention Schedules (TRD as per its acronym in Spanish) was submitted to the Departmental Council on Archives for its review.
- The Document Management Consolidation project was structured and started to be executed. Under this project, the necessary actions to close the identified gaps will be executed by adjusting the components of the business architecture from the following dimensions: processes, technology, information, organization, and people.
- The Vice Presidency of Corporate Auditing provided support, through consulting actions, in terms of risk assessment, control, and governance of the Document Management project, and the archival improvement plan, which was signed at the General Archive of the Nation, was monitored quarterly.

¹¹ PINAR: *Institutional Archive Plan*

— Policy of transparency and access to information

Currently, there is an institutional guideline for intercultural engagement and dialogue with ethnic communities. Such guideline was developed by the Sustainable Development Management within the framework of Corporate Social Responsibility (CSR) and Human Rights for the proper engagement of the companies of Grupo EPM with ethnic communities. It is currently being shared and validated. As a case example, EPM, through its affiliate Aguas Nacionales, is developing water supply projects; and in Manaure (La Guajira), for instance, there is a well water project, and a Wayúu indigenous was hired as a translator.



Knowledge management dimension

Although a tool has not yet been developed for the self-assessment of the policy associated with this dimension (knowledge management policy), the benchmark score of 79.2 was obtained through the FURAG II evaluation.

Internal control dimension

Progress made in this dimension includes:

- The assessment of the company's ethics management plan was established as a mandatory task for the Vice Presidency of Corporate Audit to be included in the annual audit plan. In their assessments, one of the reviewed topics corresponds to strategies to promote integrity in public servants (focus: training and awareness).
- From the Vice Presidency of Corporate Audit, the proposal for the issuance of global opinions was developed, by consolidating governance, risk, and control issues.
- In the results of the 2018 FURAG II evaluation, the need to strengthen the lines of defense within the organization was identified, in accordance with the scheme proposed by the MIPG. During 2019, the dependencies within the company acting as a second line of defense were identified, and based on this, a work plan will developed for the officialization of, socialization of, and culture awareness on this aspect.
- The 2019 Anti-corruption and Citizen Services Plan (PAAC as per its acronym in Spanish), which is part of the MIPG and proposes actions in coordination with the different EPM processes, was published. It aims to strengthen the results of the risk analysis and the integrated planning cycle, taking into account the analysis of the environment.
- The psychosocial risk at EPM was assessed.
- The company's ethical management plan and the role of public servants was constantly promoted through different communication, awareness and/or training strategies. These strategies are part of the Integrated Ethical Management Plan.
- Discussion panels, whose aim is to leverage cultural transformation by strengthening conversations among employees and, thus, achieve the development of organizational capacities, were held.
- The employee development plan was defined based on the "actions" that have been established within the organization.
- The corporate risk map and strategic planning was reviewed and adjusted as a result of the impacts caused by the contingency that occurred in the Ituango hydroelectric project.
- EPM's corruption risk map was updated and dully published on the website.
- The company's risks were monitored, and reports were prepared for the respective committees.
- Within the framework of the company's regulatory cycle, policies, guidelines, business rules and procedures were defined. Responsibilities regarding the application of controls were assigned.

- The company's transparent contact hotline was shared with external groups through the communication means defined at EPM.
- The annual work plan of the internal audit exercise at EPM was executed, where opportunities for improvement were identified, which will be addressed by those responsible for the organization's processes.
- The improvement plans that are being executed within the company and which emerged after different evaluation exercises were followed up.



Awards and honors

EPM

- **Seals of Excellence in Digital Governance:** In 2019, the Colombian Ministry of Information and Communications Technologies awarded EPM five seals of excellence: three for open data related to energy, water, and gas rates that were made available for use by citizens; one for citizen participation thanks to the exercises carried out in digital media (open governance); and one for the e-bill service. With this honor, entities owned by the Colombian state certify the high quality of procedures, services, and products provided by digital means, as well as a public entity's skills in the management of information technologies.
- **Recognition in the Social Innovation category of the IDB's Ideas into Action Awards:** the Acueducto Aéreo y Senderos de Vida (Overhead Water Supply and Life Paths) project, developed by EPM and its affiliate Aguas Regionales in Turbo's Port District, in Antioquia's Urabá region, ranked second among the most innovative water and sanitation companies from Argentina, Brazil, Chile, Costa Rica, Mexico, Peru, and Paraguay, according to a call by the Inter-American Development Bank (IDB).
- **Colciencias** (the Administrative Department for Science, Technology, and Innovation in Colombia) granted 100 of 100 points to EPM's Consolidación de Centros de Control (Consolidation of Control Centers) project in the Innovation category. This initiative contributes to the development of the country and the achievement of the Sustainable Development Goals (SDGs).
- **Certification on compliance with the International Internal Auditing Standards and the Auditor's Code of Ethics:** after a thorough work that involved conducting interviews and surveys to EPM's executives, reviewing documents, and evaluating assurance and consultancy tasks, a external evaluator from the International Institute of Auditors (IIA) ratified, for the second time, the "Generally Conforms" rating for the company.

CHEC

- **Third-level certification on the semantic interoperability framework for the information exchange service:** within the framework of the implementation of good practices regarding Digital Governance Policy, CHEC received recognition from the Colombian Ministry of Information Technologies and Communications (Min TIC) in the spheres of interoperability and clear language.
- **Lace of the Manizales Festival:** EPM's affiliate received this honor as a symbol of commitment and contribution to the development of the capital city of Caldas.

EDEQ

- Recognition to the Restaurar los Bosques para Conservar la Vida (Restoring Forests to Preserve Life) program: the Corporación Quindío Competitivo (CQC) recognized EDEQ for its contribution to the program, through which 86 hectares have been reforested in the department.
- First recognition by the Superintendency of Residential Public Utilities (Superservicios) and Andesco on best user service practices: Superservicios, through the National Association of Public Utilities and Communication Companies (Andesco), granted EDEQ an award, in the "Operation of the Requests and Resources Offices" category (medium-sized company), on its practices in the provision of public utilities.
- 2019 ACIEM Award on Maintenance Engineering: the Colombian Association of Engineers (ACIEM) ranked EDEQ third for its "Armonía electro-vegetal" (Electro-vegetation harmony) initiative within the framework of the 21st International Congress of Maintenance and Asset Management.

CENS

- Recognition on best user service practices: the Superintendency of Residential Public Utilities (Superservicios), through the National Association of Public Utilities and Communication Companies (Andesco), granted CENS this award, highlighting its strategies implemented in the operation of its requests and resources offices. A total of 80 public utilities companies applied in different categories, and the best ones were acknowledged by these two entities. This represents a great achievement for CENS, which has become a national benchmark in best user service practices.
- Business Merit Award: the Universidad Simón Bolívar recognized CENS's work (among 181 companies from 12 departments of Colombia) in three categories. This is the highest recognition awarded to companies and entrepreneurs every year in Colombia.

The three categories include:

- Customer service at the national level: This category highlights what has been done in terms of customer service through strategies, such as strengthening of staff, improvement plans, management systems, and implementation of ICTs in services, which, day by day, strengthen customer satisfaction.
- Corporate social responsibility at the regional level: This category recognizes service vocation in the generation of favorable, dignified, and inclusive environments, and the care and protection of the environment.

- Entrepreneur of the year: recognition granted to José Miguel González Campo, CEO at CENS, for his career and permanent leadership in the development of projects that contribute to the development of the territory.

ESSA

- Energy Hero Medal: award granted by the Colombian Ministry of Mines and Energy for participating in the 2019 Renewable Energy Auction. ESSA received this recognition on November 9, 2019, in the municipality of Barichara in the department of Santander, during the 41st Construyendo País (Building Country) workshop of the Presidency of the Republic of Colombia.
- People of Their Word recognition: award granted by the Corporación Festival de Cuenteros (Corfescu) to ESSA as a sign of gratitude for supporting the 24th International Word Festival held on October 25, 2019 in Bucaramanga.
- Recognition for participating in the Soñamos y Sonreímos por Santander (We Dream and Smile for Santander) calendar: award granted by the Volver a Sonreír (Smile Again) German and Colombian Foundation to ESSA, in December 2019, in Bucaramanga, for supporting various of their initiatives. This foundation is committed to working on the development of children, adolescents, and their families who live in vulnerable conditions, are subjected to a high social risk, and whose rights are threatened and/or violated.
- Centennial recognition, A la Vanguardia awards: the Vanguardia Liberal newspaper, in commemoration of its 100th anniversary, granted a special award to ESSA, on May 30, 2019, for its 128-year history, throughout which it has been characterized by its excellent provision of residential public utilities and its commitment reflected in its effort to achieve the highest indicators.

Emvarias

- 2019 WasteExpo Award: recognition granted by the Colombian Association of Environmental Engineering (Acodal) to Emvarias for being a leading company in waste collection in the region and for promoting a comprehensive solid waste management. It was awarded in Medellín on November 14, 2019 within the framework of the International WasteExpo Seminar.

External assurance

See the external assurance certificate for the 2019 Management Report figures that are part of the 2019 EPM Sustainability Report in: [Independent assurance report](#).

The following financial figures were audited by KPMG for external assurance, through the financial statements of EPM and Grupo EPM. The reports by the independent auditors are available in: [EPM certificates](#) and [Grupo EPM certificates](#).

Financial information	Chapter and subchapter of the CEO's 2019 management report	Data submitted for verification	Figure verified	Page
Financial results	Grupo EPM results	Grupo EPM revenue	Grupo EPM had a revenue of COP 18.4 trillion . Figures validated through substantive testing and matching the consolidated financial statements.	110
	Grupo EPM results	Grupo EPM period result	Grupo EPM obtained a period result of COP 3.2 trillion , which shows a 31% increase. Figures validated matching the financial statements.	110

Financial information	Chapter and subchapter of the CEO's 2019 management report	Data submitted for verification	Figure verified	Page
Financial results	Grupo EPM results	EPM revenue	The EPM parent company achieved a revenue of COP 8.8 trillion , for an 8% increase. Figures validated through substantive testing and matching the separate financial statements.	110
	Grupo EPM results	EPM period result	EPM achieved a net profit of COP 2.7 trillion , which means an increase of 15%. Figures validated through substantive testing and matching the financial statements.	110
	Grupo EPM results	Grupo EPM assets	The Grupo EPM assets grew by 5%, going from COP 52.5 trillion to COP 55 trillion . Figures validated through substantive testing and matching the consolidated financial statements.	116

Financial information	Chapter and subchapter of the CEO's 2019 management report	Data submitted for verification	Figure verified	Page
Financial results	Grupo EPM results	Grupo EPM liabilities	The liabilities grew by 1%, going from COP 30.5 trillion to COP 30.7 trillion. Figures validated through substantive testing and matching the consolidated financial statements.	116
	Grupo EPM results	Grupo EPM equity	The equity grew by 10%, going from COP 22 trillion to COP 24 trillion. Figures validated through substantive testing and matching the consolidated financial statements.	116
	Grupo EPM results	Capitalizations	During 2019, EPM capitalized HET by COP 178,469 million , EPM Mexico by COP 74,661 million , Aguas de Malambo by COP 12 billion , and Aguas de Oriente by COP 1,211 million. Figures validated through the consolidated financial statements.	119

Sustainability Report 2019

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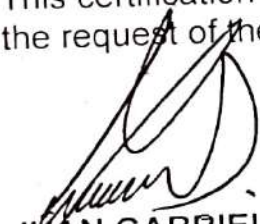
The undersigned Secretary of the Board of Directors of Empresas Públicas de Medellín E.S.P.

HEREBY CERTIFIES

At the meeting held on March 26, 2020, the Board of Directors approved the CEO's Management Report corresponding to the year 2019, according to Minutes 1685.

The minutes referenced above, along with the respective annexes, are subject to the corresponding procedure of review and signatures.

This certification has been issued to the Financial Superintendence of Colombia, at the request of the EPM Directorate of Accounting and Costs.



JUAN GABRIEL ROJAS LÓPEZ
General Secretary

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Empresas Públicas de Medellín E.S.P. and Subsidiaries

**Consolidated Financial Statements and Notes
31 December 2019 and 2018**

Certification of EPM's Legal Representative and Accountant

March 26, 2020

**To the Board of Directors of
Empresas Públicas de Medellín E.S.P.**

We, the undersigned, in our capacity as the Legal Representative and Accountant of Empresas Públicas de Medellín E.S.P., hereby certify that the balances of the Consolidated Financial Statements of Empresas Públicas de Medellín E.S.P. and its subsidiaries at December 31, 2019 and 2018, were faithfully taken from the accounting books, which are prepared in accordance with the Accounting and Financial Reporting Standards accepted in Colombia (NCIF, for the Spanish original) and adopted by the General Accounting Office of Colombia through Resolution 037/2017 and Resolution 049/2019. These accounting and financial reporting standards are based on the International Financial Reporting Standards adopted in Colombia and issued by the International Accounting Standards Board (IASB), as well as interpretations issued by the Interpretations Committee.

We certify that the statements contained in the aforementioned Consolidated Financial Statements were verified for accuracy in relation to:

- a) All economic events that have occurred during the reporting period have been properly recorded for their due recognition in the appropriate amounts and accounts, measured at fair value and adequately disclosed.
- b) The economic events are classified, presented and disclosed in accordance with the provisions of the Accounting and Financial Reporting Standards accepted in Colombia (NCIF) and adopted by the General Accounting Office of Colombia through Resolution 037/2017 and Resolution 049/2019.
- c) All assets, liabilities and equity in the Consolidated Financial Statements represent the existence of assets, rights and obligations of Empresas Públicas de Medellín E.S.P. and its subsidiaries and have been valued in the appropriate amounts.
- d) The accounting notes or disclosures are prepared clearly and in accordance with the Accounting and Financial Reporting Standards accepted in Colombia (NCIF) and adopted by the General Accounting Office of Colombia through Resolution 037/2017 and Resolution 049/2019.

The Consolidated Financial Statements do not contain any defects, inaccuracies or misstatements that would prevent the true financial position and financial performance of the Entity and its subsidiaries from being known.


Álvaro Guillermo Rendón López
Legal Representative


John Jaime Rodríguez Sosa
Public Accountant
Professional License No. 144842-T

estamos ahí.



INDEPENDENT AUDITOR'S REPORT

To the Board of Directors
Empresas Públicas de Medellín E.S.P.:

Opinion

We have audited the consolidated financial statements of Empresas Públicas de Medellín E.S.P. (the Group), which comprise the consolidated statement of financial position as of 31 December 2019, the consolidated statement of profit or loss and other comprehensive income, changes in equity and cash flows for the year that ended and their respective notes, including a summary of significant accounting policies and other explanatory information.

In our opinion, the accompanying consolidated financial statements, present fairly, in all material respects, the consolidated financial position of the Group as at 31 December 2019, and its consolidated financial performance of its operations and its consolidated cash flows for the year that ended, in accordance with the Accounting and Financial Reporting Standards accepted in Colombia adopted by the Nation's General Accounting Office through resolution 037 of 2017 and resolution 049 of 2019, applied uniformly with the previous year, except for the application of IFRS 16 – Leases.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing accepted in Colombia (ISA). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the consolidated Financial Statements section of our report. We are independent of the Group, in accordance with the Code of Ethics for Accounting Professionals issued by the International Ethics Standards Board for Accountants (IESBA) included in the Information Assurance Standards accepted in Colombia together with the ethical requirements that are relevant to our audit of the consolidated financial statements established in Colombia and we have fulfilled our ethical responsibilities in accordance with these requirements and the aforementioned IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of a matter

We draw attention to note 4 to the consolidated financial statements, which describes the events that occurred at the Ituango Hydroelectric Project and their impact on the financial statements. The root causes of the events mentioned are still being evaluated by the Company and the relevant control and surveillance agencies, therefore the final result cannot be determined at present and consequently no further effect on the Group consolidated financial statements is foreseen. Our opinion is not modified because of this matter.



Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period.

These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon we do not provide a separate opinion on these matters.

Evaluation of Impairment of Cash Generating Unit – Electricity Generation (See notes 2.24 and 8.2 to the consolidated financial statements)	
Key Audit Matter	How our audit addressed the key audit matter
<p>The Group's consolidated statement of financial position includes property, plant and equipment, net and intangibles in non-current assets for \$17,880,484 million COP associated with the Cash Generating Unit (CGU) Electricity Generation of the Holding company.</p> <p>The evaluation of the impairment of the CGU is calculated by the Financial Planning Department through the configured HSF-Oracle application; the base information for the determination of the financial projections of the businesses is approved by the respective Vice President and annually taken to the Board of Directors for ratification. At the end of the year, the Value in Use report for the non-financial assets is generated and compared with the recorded value of the CGU to decide whether impairment should be recognized in the financial statements.</p> <p>We considered the evaluation of the Cash Generation Unit – Electricity Generation as a key audit matter as it involves complex judgments by the Holding company in assessing impairment, and there was significant judgment and audit effort to evaluate the audit evidence obtained related to (i) the value in use methodology; (ii) asset value calculations and (iii) key inputs and assumptions used in the model such as (1) historical baseline figures for the projection;</p>	<p>Our audit procedures to evaluate the impairment assessment of the cash generating unit – Electricity Generation included, but were not limited to, the following:</p> <ul style="list-style-type: none"> - Verification of the approval of projected financial figures by the Vice President of each business. - Review of the approval by the Board of Directors of the financial projections of businesses. - Evaluation of the design, implementation and operating effectiveness of the key controls established by the Holding company to determine the key assumptions used in the impairment testing, with the involvement of professionals with experience and knowledge in valuation. This included controls related to the determination of the macroeconomic assumptions and variables used for the estimation of the discount rates applied in the determination of the recoverable value of the cash-generating unit. - Valuation professionals assisted us in (i) evaluating the value in use methodology; (ii) performing independent recalculations; and (iii) analyzing and evaluating the key inputs used in the model such as (1) historical baseline figures for the projection; (2) variables for changes in volumes, prices and



<p>(2) projected figures for changes in volumes, prices and margins; (3) insurers' claims; (4) rates applied to discount of future cash flows; and (5) growth rate gradient in perpetuity.</p>	<p>margins; (3) sensitizing the insurance claim model by eliminating estimated amounts receivable in 2021, (4) evaluating the rates applied to discount future cash flows, (5) the range of discount rates for the cash generating unit with market parameters and (6) challenging the growth rate gradient in perpetuity by comparing the rates used by the Holding company with public market sources.</p>
<p>Assessment of the sufficiency of lawsuit provisions and appropriate assessment of contingent liabilities (See notes 27.1.3 and 27.3 to the consolidated financial statements)</p>	
<p>Key Audit Matter</p>	<p>How our audit addressed the key audit matter</p>
<p>The Company's consolidated statement of financial position includes provisions for Lawsuits of \$275,820 million COP and contingent liabilities for \$1,701,087 million COP.</p> <p>The valuation of said provisions and contingent liabilities requires the Group to perform complex estimates and to apply certain judgments and assumptions for the probability of unfavorable outcomes of legal proceedings and, therefore, to determine and recognize the payment obligation, the estimate of the amounts to be paid based on the claims and estimated dates of payment.</p> <p>We have considered the adequacy of the sufficiency of said provisions for lawsuits and contingencies as a key audit matter because of the complexity of assigning amounts to the key assumptions considered and because the valuation of such assumptions could have a material impact on the consolidated financial statements of financial position and profit or loss and other comprehensive income.</p>	<p>Our audit procedures for assessing the sufficiency of the provisions for contingent liabilities and lawsuits included, but were not limited to, the following:</p> <ul style="list-style-type: none"> - Understanding of the processes established by the Group for the estimation of provisions and contingent liabilities, including the evaluation of the design and implementation and effectiveness of relevant controls, which included controls related to: definition of probability, classification into labor, administrative, civil, and fiscal, average duration, application of case law, and uniformity in value estimation criteria. - Reading of the Board of Directors' minutes to verify the follow-up and approval of the Legal Department's decisions on the Group's lawsuits. - Obtaining the list of lawsuits prepared by the Group's Legal Department and verifying the amounts recorded and disclosed in the consolidated financial statements. - Obtaining confirmation from the Group's internal and external legal advisors on the probabilities of verdicts and current status of the process.



	<ul style="list-style-type: none"> - Selection of a sample of the main lawsuits to analyze the supporting documentation with the involvement of our professionals with experience and knowledge in labor and administrative law who assisted us in: <ul style="list-style-type: none"> • Legal analysis of the documents supporting the claims, the probability of a verdict against the Group and the estimated amount. • Analysis of the possibility for the Group to file an appeal against the court ruling, according to the current situation of each of the selected cases. - Review of the disclosures made in the notes to the consolidated financial statements in accordance with the applicable financial reporting framework.
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Responsibility of management and of personnel responsible for the corporate governance of the Group for the consolidated financial statements.

Management is responsible for the preparation and reasonable presentation of this consolidated financial statements in accordance with Accounting and Financial Reporting Standards accepted in Colombia adopted by the Nation's General Accounting Office through resolution 037 of 2017 and resolution 049 of 2019. This responsibility includes devising, implementing and maintaining such internal control as management deems necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable under the circumstances.

In preparing the consolidated financial statements, Management is responsible for assessing the Group's ability to continue as going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting, unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.



The personnel responsible for the corporate governance are responsible for overseeing the Group's financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements.

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISA will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with ISA, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit 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.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the Management's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the consolidated financial statements give a true and fair view.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated



financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with corporate governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

A handwritten signature in black ink, followed by the text 'KPMG S.A.S.' in a similar handwritten style.

Gonzalo Alonso Ochoa Ruiz —
Partner
26 March 2020
Medellín

EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As of 31 December 2019 and 2018

Figures stated in millions of Colombian pesos



	Notes	2019	2018
Assets			
Non-Current Assets			
Property, plant and equipment, net	5	35,605,655	34,488,599
Investment property	6	140,354	91,382
Goodwill	7	2,895,451	3,032,267
Other intangible assets	7	2,350,612	2,315,958
Right-of-use assets	14	609,412	-
Investments in associates	10	1,758,462	1,746,487
Investments in joint ventures	11	82	82
Deferred tax assets	39	220,026	249,700
Trade and other receivables	12	1,013,685	929,475
Other financial assets	13	2,541,567	2,312,368
Other assets	16	106,914	112,192
Cash and cash equivalents (restricted)	18	46,415	22,343
Total non-current assets		47,288,635	45,300,853
Current assets			
Inventories	17	391,244	409,665
Trade and other receivables	12	4,072,661	3,284,742
Current income tax assets	39	169,185	118,400
Other financial assets	13	867,998	1,234,305
Other assets	16	438,592	453,411
Cash and cash equivalents	18	1,664,151	1,576,039
Total current assets		7,603,831	7,076,562
Total assets		54,892,466	52,377,415
Debit balances of deferred regulatory accounts	30	-	111,868
Deferred tax assets related to deferred regulatory account balances	30	7,683	-
Total assets and debit balances of deferred regulatory accounts		54,900,149	52,489,283

EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As of 31 December 2019 and 2018

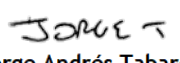
Figures stated in millions of Colombian pesos



	Notes	2019	2018
Equity			
Issued capital	19	67	67
Treasury shares		(41)	-
Reserves	19	2,337,862	2,560,657
Accumulated other comprehensive income	20	3,304,761	2,894,627
Accumulated profit	19	14,518,224	13,392,190
Net profit for the year	19	2,985,182	2,258,293
Other components of equity		68,333	(23,323)
Equity attributable to owners of the company		23,214,388	21,082,511
Non-controlling interests	19	964,572	953,707
Total equity		24,178,960	22,036,218
Liabilities			
Non-current liabilities			
Loans and borrowings	21	17,671,539	16,029,141
Trade and other payables	22	601,393	502,769
Other financial liabilities	23	916,917	491,571
Employee benefits	25	931,492	858,515
Income tax payable	39	33,701	33,701
Deferred tax liabilities	39	2,243,327	2,556,008
Provisions	27	491,930	474,148
Other liabilities	28	116,440	119,527
Total non-current liabilities		23,006,739	21,065,380
Current liabilities			
Loans and borrowings	21	2,984,466	4,805,659
Trade and other payables	22	2,534,254	2,698,694
Other financial liabilities	23	416,661	347,100
Employee benefits	25	247,466	251,260
Income tax payable	39	363,584	91,264
Taxes, contributions and rates	26	222,368	191,281
Provisions	27	589,977	778,219
Other liabilities	28	330,064	190,648
Total current liabilities		7,688,840	9,354,125
Total liabilities		30,695,579	30,419,505
Credit balances of deferred regulatory accounts	30	25,610	-
Deferred tax liabilities related to balances of deferred regulatory accounts	30	-	33,560
Total liabilities and credit balances of deferred regulatory accounts		30,721,189	30,453,065
Total liabilities and equity		54,900,149	52,489,283

The accompanying notes are an integral part of the financial statements.


Álvaro Guillermo Rendón López
 General Manager
 Certification Attached


Jorge Andrés Tabares Ángel
 Executive Vice-President Finances and Investments


John Jaime Rodríguez Sosa
 Director of Accounting and Costs
 Professional Card No. 144842-T
 Certification Attached

EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME


For the period from 1 January to 31 December 2019 and 2018

Figures stated in millions of Colombian pesos




	Notes	2019	2018
Continuing operations			
Sale of goods	31	24,222	18,266
Rendering of services	31	17,612,673	15,834,371
Leases	31	111,824	83,110
Other income	32	609,319	325,878
Revenue		18,358,038	16,261,625
Profit on sale of assets	31	1,576	7,311
Total income		18,359,614	16,268,936
Costs of goods sold and services rendered	33	(11,557,807)	(10,689,982)
Administrative expenses	34.1	(1,596,792)	(1,720,698)
Impairment loss on trade receivables	34.2	(77,801)	(69,461)
Other expenses	35	(157,467)	(197,647)
Finance income	36.1	370,837	270,836
Finance expenses	36.2	(1,290,282)	(1,049,793)
Net foreign exchange difference	37	(55,883)	(264,117)
Equity-accounted investees	10 and 11	11,793	(18,017)
Gain on equity investments	38	9,727	65,167
Income for the year before tax		4,015,939	2,595,223
Income tax	39	(810,199)	(210,606)
Profit for the year after taxes from continuing operations		3,205,740	2,384,616
Discontinued operations, net of income tax	40	48,245	(4,034)
Net profit for the year before net movement in balances of deferred regulatory accounts		3,253,985	2,380,582
Net movement in balances of net regulatory accounts related to profit for the year	30	(139,997)	52,884
Net movement in deferred tax related to deferred regulatory accounts related to profit for the year	30	41,988	(15,928)
Net profit for the year and net movement in balances of deferred regulatory accounts		3,155,976	2,417,538
Other comprehensive income			
Items that will not be reclassified to profit or loss:			
Remeasurement of defined benefit plans	20	(72,364)	(2,422)
Equity investments measured at fair value through equity	20	465,395	(3,990)
Income tax related to components that will not be reclassified	20 and 39	149,678	8,567
Equity accounted investees - share of OCI	10 and 20	(243)	(444)
		542,466	1,711
Items that may be reclassified subsequently to profit or loss:			
Cash flow hedges	20	28,841	3,283
Recognized profit for the year		(54,338)	171,581
Reclassification adjustment		83,179	(168,299)
Exchange differences on translation of foreign operations	20	(216,050)	100,380
Income taxes related to components that can be reclassified	20 and 39	19,268	(67,928)
Equity accounted investees - share of OCI	10 and 20	(55)	(615)
		(167,996)	35,120
Other comprehensive income, net of taxes		374,470	36,831
Total comprehensive income for the year		3,530,446	2,454,369
Profit for the period attributable to:			
Owners of the company		2,985,182	2,258,293
Non-controlling interest		170,794	159,245
		3,155,976	2,417,538
Total comprehensive income attributable to:			
Owners of the company		3,358,619	2,288,787
Non-controlling interest		171,827	165,582
		3,530,446	2,454,369

The accompanying notes are an integral part of the financial statements


Álvaro Guillermo Rendón López
 General Manager
 Certification Attached


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 Executive Vice-President Finances and Investments


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 Director of Accounting and Costs
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EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

For the period from 1 January to 31 December, 2019 and 2018

Figures stated in millions of Colombian pesos



	Other comprehensive income													
	Issued capital	Treasury shares	Reserves	Accumulated other comprehensive income	Other components of equity	Equity investments	Defined benefit plans	Cash flow hedging	Exchange differences on translation of foreign operations	Reclassification of properties, plant and equipment to investment property	Accumulated share of other comprehensive income of associates and joint ventures	Attributable to owners of the company	Non-controlling interests	Total
	Note 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 at 1 January 2018	67	-	3,479,283	13,692,151	(25,118)	2,173,346	(29,557)	(5,789)	716,674	12,079	(2,581)	20,010,555	857,654	20,868,209
Profit for the period	-	-	-	2,258,293	-	-	-	-	-	-	-	2,258,293	159,245	2,417,538
Other comprehensive income for the period, net of income tax	-	-	-	-	-	(5,111)	1,032	(64,714)	100,377	-	(1,059)	30,525	6,306	36,831
Comprehensive income for the period	-	-	-	2,258,293	-	(5,111)	1,032	(64,714)	100,377	-	(1,059)	2,288,818	165,551	2,454,369
Surpluses or dividends declared	-	-	-	(1,203,504)	-	-	-	-	-	-	-	(1,203,504)	(106,956)	(1,310,460)
Movement in reserves	-	-	(918,626)	918,626	-	-	-	-	-	-	-	-	-	-
Purchase and sale of non-controlling interests	-	-	-	2	(35)	-	-	-	-	-	-	(33)	33	-
Transfers to retained earnings	-	-	-	(51)	-	69	-	-	-	-	-	18	-	18
Income tax related to transactions with owners	-	-	-	(341)	-	-	-	-	-	-	-	(341)	(326)	(667)
Equity-accounted investees for changes in equity	-	-	-	-	1,837	-	-	-	-	-	-	1,837	-	1,837
Other movement of the period	-	-	-	(14,693)	(7)	-	144	-	-	(283)	-	(14,839)	37,751	22,912
Balance at 31 December 2018	67	-	2,560,657	15,650,483	(23,323)	2,168,304	(28,381)	(70,503)	817,051	11,796	(3,640)	21,082,511	953,707	22,036,218
Balance at 1 January 2019	67	-	2,560,657	15,650,483	(23,323)	2,168,304	(28,381)	(70,503)	817,051	11,796	(3,640)	21,082,511	953,707	22,036,218
Profit for the period	-	-	-	2,985,182	-	-	-	-	-	-	-	2,985,182	170,794	3,155,976
Other comprehensive income for the period, net of income tax	-	-	-	-	-	587,736	(48,637)	48,116	(213,480)	-	(298)	373,437	1,033	374,470
Comprehensive income for the period	-	-	-	2,985,182	-	587,736	(48,637)	48,116	(213,480)	-	(298)	3,358,619	171,827	3,530,446
repurchase of shares	-	(41)	-	-	-	-	-	-	-	-	-	(41)	(40)	(81)
Surpluses or dividends declared	-	-	-	(1,289,652)	-	-	-	-	-	-	-	(1,289,652)	(139,590)	(1,429,242)
Movement in reserves	-	-	(222,651)	222,651	-	-	-	-	-	-	-	-	-	-
Purchase and sale of non-controlling interests	-	-	(144)	(40,216)	14,926	(1,090)	(107)	803	(2,806)	-	-	(28,634)	(31,561)	(60,195)
Transfers to retained earnings	-	-	-	(8,994)	-	8,477	537	-	-	-	-	20	-	20
Income tax related to transactions with owners	-	-	-	1,955	-	-	-	-	-	-	-	1,955	1,866	3,821
Equity-accounted investees for changes in equity	-	-	-	(162)	3,752	-	-	-	-	-	24	3,614	-	3,614
Other movement of the period	-	-	-	(17,841)	72,978	30,978	(557)	-	-	438	-	85,996	8,363	94,359
Balance at 31 December 2019	67	(41)	2,337,862	17,503,406	68,333	2,794,405	(77,145)	(21,584)	600,765	12,234	(3,914)	23,214,388	964,572	24,178,960

The accompanying notes are an integral part of the financial statements

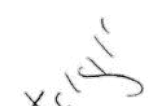
Álvaro Guillermo Rendón López
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Executive Vice-President Finances and Investments

John Jaime Rodríguez Sosa
Director of Accounting and Costs
Professional Card No. 144842-T
Certification Attached

	Notes	2019	2018
Cash flows from operating activities:			
Net profit for the period		3,155,976	2,417,538
Adjustments to reconcile the net profit for the period to the net cash flows used in operating activities:			
Depreciation and amortization of property, plant and equipment, right-of-use assets and intangible assets	33 and 34	1,140,099	992,108
Impairment of property, plant and equipment, right of use assets and intangible assets	8	2,254	6,052
Impairment of receivables	34.2	230,343	122,614
Reversal of loss of receivables	34.2	(152,542)	(53,153)
Net foreign exchange difference gains	37	55,883	264,117
Proceeds from valuation of investment property	32	(51,808)	(4,352)
Proceeds from valuation of financial instruments and hedge accounting	36.1 and 36.2	(33,066)	24,479
Provisions, post-employment and long-term defined benefit plans	34	240,896	541,557
Government subsidies applied	32	(1,023)	(2,091)
Deferred income tax	39.3	(233,502)	(357,497)
Current income tax	39.3	1,043,701	574,890
Share of loss of equity-accounted investees	10	(11,793)	18,017
Proceeds from interest	36.1	(248,044)	(214,351)
Interest expenses	36.2	1,214,993	929,969
Proceeds from disposition of property, plant and equipment, right-of-use assets and intangible assets	31 and 35	(1,538)	(3,148)
Proceeds from disposition of financial instruments	38	47,534	3,043
Dividends from investments	38	(57,262)	(68,209)
Other non-cash income and expenses, net	32 and 35	(167,844)	38,816
Net changes in operating assets and liabilities:		6,173,257	5,230,399
Change in inventories		18,878	2,386
Change in trade and other receivables		(217,220)	(514,522)
Change in other assets		99,965	105,108
Change in trade and other payables		(139,144)	197,318
Change in employee benefits		(53,052)	(32,979)
Change in provisions		(368,479)	(38,476)
Change in other liabilities		376,587	(21,268)
Interest paid		(1,612,421)	(1,268,260)
Income tax paid		(804,930)	(741,178)
Income tax refund		1,255	374,974
Net cash from operating activities		3,474,696	3,293,502
Net cash from investing activities:			
Acquisition and capitalization of subsidiaries or businesses		(20)	-
Disposition of subsidiaries and businesses		471,808	-
Acquisition of property, plant and equipment	5	(3,260,864)	(3,704,438)
Disposition of property, plant and equipment	5	18,589	138,953
Acquisition of intangible assets	7	(316,068)	(90,759)
Disposition of intangible assets	7	44,096	19,433
Disposition of investment property	6	2,165	-
Acquisition of investments in financial instruments		(452,875)	(1,604,528)
Disposition of investments in financial instruments		1,074,060	612,789
Interest received		3,335	4,498
Dividends received from subsidiaries		(92)	-
Dividends received from associates and joint ventures	10	41,600	-
Other dividends received	13	56,132	64,488
Compensation received	4	531,607	-
Other cash from investing activities		(64,517)	95,823
Net cash used in investing activities		(1,851,044)	(4,463,741)
Cash from financing activities:			
Acquisition of own shares		(81)	-
Obtaining of loans and borrowings	21	9,297,603	6,700,282
Payment of loans and borrowings	21	(9,425,148)	(3,455,320)
Transaction costs by issuance of debt instruments		(13,146)	(65,212)
Payment of finance lease liabilities		(40,883)	(1,040)
Dividends or surpluses paid to owners (Municipio de Medellín)	19.3	(1,289,652)	(1,503,504)
Dividends or surplus paid to non-controlling interests	7	(103,162)	(126,389)
Capital grants		154	353
Payments of capital of derivatives designated as cash flow hedges	24	156,514	-
Net purchases from non-controlling interests		(60,197)	-
Payment of pension bonds		(26,091)	-
Other cash from financing activities		43,570	83,899
Net cash flows (used in) / provided by financing activities		(1,460,519)	1,633,069
Net increase in cash and cash equivalents		163,133	462,830
Effects of movements in exchange rates on cash and cash equivalents		(50,948)	(55,663)
Cash and cash equivalents at beginning of the year	18	1,598,381	1,191,214
Cash and cash equivalents at end of the year		1,710,566	1,598,381
Restricted resources	18	196,072	173,375

The accompanying notes are an integral part of the financial statements


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General Manager
Certification Attached


Jorge Andrés Tabares Ángel
Executive Vice-President Finances and Investments



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Notes to the consolidated financial statements of the EPM Group for the years ended 31 December 2019 and 2018

(In millions of Colombian pesos, except when indicated otherwise)

Note 1. Reporting Entity

Empresas Públicas de Medellín E.S.P. and subsidiaries (hereinafter, "EPM Group") is the holding company of a multi-latin Enterprise group made up of 45 companies and a structured entity¹, that have presence in the provision of public utilities in Colombia, Chile, El Salvador, Guatemala, Mexico and Panama.

Empresas Públicas de Medellín E.S.P. (hereinafter EPM), holding of the EPM Group, 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 of municipal order through Decision 069 of December 10, 1997 of the Medellín Council. Due to its legal status, EPM is endowed with administrative and financial autonomy, and its own equity according to Article 85 of Law 489 of 1998. The share capital with which the company was constituted and currently operates, as well as its equity, is of public nature, being 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 utilities of water, sewage electricity and natural gas distribution. It can also provide the domiciliary public utility of waste management, treatment and disposal of solid waste, as well as the supplementary activities related to each and every one of the mentioned public utility services.

The EPM Group offers its services through the following business units:

- Energy: comprised by the Electricity Generation, Electricity Transmission, Electricity Distribution and Natural Gas Distribution and Commercialization segments.
- Water: includes the Water Supply, Wastewater Management and Solid Waste Management segments.
- Others segment: Consisting of the investment vehicles, Distribución Eléctrica Centroamericana II S.A. (DECA II), EPM Capital Mexico S.A. de C.V., EPM Chile S.A., EPM Inversiones S.A., EPM Latam S.A., Inversiones y Proyectos Hidrosur SpA (former Inversiones y Asesorías South Water Services SpA) ², Panama Distribution Group S.A. (PDG). It additionally includes Maxseguros EPM Ltd., captive reinsurer established to negotiate, contract, and provide reinsurance services.
- Furthermore, EPM participates in the telecommunications business, in which it has significant influence since August 2014, through UNE EPM Telecomunicaciones S.A. and its affiliates: Edatel S.A. E.S.P, Orbitel Servicios Internacionales S.A. (OSI), Cinco Telecom Corporation (CTC) and Colombia Movil S.A.; and Inversiones Telco S.A.S. and its affiliate Emtelco S.A.; providing voice, data and Internet utilities, professional services, and data center, among others.

The consolidated financial statements of the Group corresponding to the year ended 31 December 2019, were authorized by the Board of Directors to be published on 26 March 2020. The main activities of the Group are described in Note 46 Operating segments.

¹ Autonomous Equity *Financiación Social*. Under International Financial Reporting Standards -IFRS, it is considered a structured entity that is part of the consolidation perimeter of the EPM Group's financial statements.

² It changed its company name on November 26, 2018, through public deed No. 34.861-2018 of Notary 27 of Santiago de Chile.

Legal and Regulatory Framework

The activities developed by the EPM Group, i.e. domiciliary public utilities, are regulated in Colombia, Chile, El Salvador, Guatemala, Mexico, and Panama. The most significant regulatory matters that apply are:

1. Legislation for Colombia

The rendering of public home utilities is regulated in Colombia mainly by Law 142, Public Utilities Act, and Law 143 of 1994, Electricity Act.

The functions of control, inspection and supervision of the entities that provide public home utilities are exercised by the Office of the Superintendent of Domiciliary Public Utilities (SSPD, for its Spanish initials).

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 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 public home 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 rates for energy sales and the aspects related to the operation of the Wholesale Energy Market (MEM, for its Spanish initials) and to the provision of electric power, natural gas and liquid fuel services.
- Regulatory Commission of Drinking Water and Sanitation (CRA, for its Spanish initials), regulates the rates of water, sewage and solid waste management, a technical body attached to the Ministry of Housing, City and Territory.

1.2 Regulation by sector

1.2.1 Activities of the water, sewage and waste management sector

Law 142, Public Utilities Act, defined the water, sewage and waste management services:

Water: Also called drinking water domiciliary public utility. Activity consisting of the municipal distribution of water, which is fit for human consumption, including its connection and measurement. It includes supplementary activities such as water catchment and its processing, treatment, storage, conduction and transportation.

Sewage: Activity that consists of the municipal collection of waste, mainly liquid, through piping and conduits. It includes the supplementary activities of transportation, treatment, and final disposal of such waste.

Waste management: Activity that consists of the municipal collection of waste, mainly solid waste. It includes the supplementary activities of transportation, treatment, disposal, and final disposal of such waste.

For the Water and Sewage utilities, the rate framework is established in Resolutions CRA 688 of 2014 and CRA 735 of 2015 issued by the Drinking Water and Sewage Regulation Commission (CRA, for its Spanish initials). For the Waste management public utility, in resolution CRA 720 of 2015. These rules establish quality and coverage indicators, provide incentives to meet targets and define remuneration mechanisms to collateral the company's financial sufficiency.

1.2.2 Electric sector activities

Law 143 of 1994 segmented the electric power utility 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 to tend to an efficient, secure and reliable operation of the sector.

Generation: It consists of 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 (hereinafter STN, for its Spanish initials). It encompasses the set of lines, with its corresponding connection equipment that operate in voltages greater than or equal to 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 said activity.

Distribution: It consists of transporting electric power through a set of lines and substations, with the associated equipment, that operate at voltages lower than 220 KV.

Commercialization: An activity that consists of 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.

1.2.3 Activities of the natural gas sector

Law 142 of 1994 defined the legal framework for the provision of domiciliary public utilities, field in which natural gas is defined as a public utility.

Gas: It is the set of activities targeted to the distribution of gas fuel, 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 supplementary activities of commercialization from the production and transportation of gas through a main gas pipeline, or through other means, from the generation site and to that where it connects to a secondary network.

2. Legislation for Chile

2.1 Electric sector activities

The activities of generation, transmission and distribution regulated by the Electric Services General Act (LGSE, for its Spanish initials) are identified in the Chilean electric market.

There are four interconnected electrical systems in Chile: two small systems serving the south of the country, the Aysén System and the Magallanes System, which concentrate 0.29% and 0.62% of the country's installed capacity respectively, and two large systems, the Sistema Interconectado Norte Grande (SING) and the Sistema Interconectado Central (SIC) which concentrate 28.06% and 71.03% of the installed capacity respectively and have a coordinated load dispatch operating since 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 Government involvement.

2.2 Sanitation service activities

The Sanitation Sector is made up by the group of entities which functions relate to the services of production and distribution of drinking water and collection and disposal of wastewater, that is, the

companies in charge of providing those services and the Superintendence of Sanitation Utilities, regulatory and overseeing entity of this sector.

2.3 Regulatory framework

Electric: According to the Electric Services General Act (“Ley General de Servicios Eléctricos - LGSE”), the National Energy 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 mainly consists of:

- Decree with Force of Law (DFL) No. 1 of 1982. The Electric Services General Act 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 No. 19.940 of 2004 (Short Act I “Ley Corta I”), that reformed the regulatory framework of the Transmission, and Law No. 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, Electric Services General Act, on the subject of electric power.
- Law No 20.257 of 2008. It introduces modifications to the Public Utilities General Act (LGPS) in respect to the generation of electric energy with renewable non-conventional energy sources.
- Law No. 20.402 of 2009. Creates the Ministry of Energy, establishing modifications to Decree Law No. 2.224 and to other legal bodies.
- Law No. 20,936 of 2016. Amends Law No. 20,018 of 2005, establishes a new electricity transmission system and creates an independent coordinating body for the national electricity system.

Sanitation: In the regulation scheme in effect, where the regulatory and monitoring function of the State is separated from the producing function, the Superintendence of Sanitation Utilities 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 emphasizes 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 function of the Superintendence of Sanitation Utilities applying and enforcing the provisions for the respective legal bodies: Decree with Force of Law No. 70 of 1988, Rates Act and Decree with Force of Law No. 382 of 1988, Sanitation Utilities General Act.

The legal framework of the Chilean sanitation sector mainly composed of:

- Law of the Superintendence of Sanitation Utilities - Law 18.902 of 1990 (Modified by Law No. 19.549 of 1998 and Law No. 19.821 of 2002): creates the Superintendence of Sanitation Utilities 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 Superintendence of Sanitation Utilities will correspond the monitoring of the providers of sanitation utilities, of the compliance with rules related to sanitation utilities and the control of industrial liquid waste connected to the rendering of services of sanitation companies, capable of,

either officially or at the request of any interested party inspecting the sanitation infrastructure works made by the providers.

- Regulations of the Sanitation Utilities General Act, Supreme Decree (D.S.) of the Ministry of Public Works (M.O. P.) No. 1199, Dec/2004 Published in the Official Diary on November 9, 2005: approves the regulations of sanitation concessions of production and distribution of drinking water and collection and disposal of wastewater and the regulations on the customer service quality to the users.
- Sanitation Utilities Rates Act: Decree with Force of Law MOP No. 70 of 1988 - Published in the Official Diary on March 30, 1988.
- Waters Code and its modifications: the Decree with Force of Law No. 1.122 regulates the property and the right-of-use of water. The latest modifications are: Law No. 20.017 of 2005 and Law No 20.099 of 2006.
- Regulation of the Sanitation Utilities General Act- Supreme Decree MOP No. 1199, Dec/2004: approves the regulations of the sanitation concession of production and distribution of drinking water and of collection and disposal of wastewater and of the regulations on the customer services quality to the users.

2.4 Regulatory entities

Some of the main regulatory entities for the energy service in Chile are:

- Ministry of Energy: It is the higher 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 (“Comisión Nacional de Energía - CNE”) is attached to the Ministry of Energy.
- National Energy Commission (“Comisión Nacional de Energía - CNE”): The National Energy Commission (CNE) is a public decentralized entity with its own equity and full capacity to acquire and exercise rights and obligations that relate to the President of the Republic through the Ministry of Energy. In particular, the National Energy Commission leads the rates setting 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 expected operation of the energy sector, through the issuance of the works scheme that constitutes an indicative guide for a ten-year expansion of the system. It also proposes to the Ministry of Energy the legal and regulatory norms that are required in the matters of its competence.
- Superintendence 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, natural gas and fuels utilities, 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, natural gas and electricity, to verify the quality of services provided to users is the one stated in those decisions and technical norms and that the operations and use of the energy resources do not constitute a hazard to the people or their property. The institutional framework of SEC is Law 18.410 of 1985, modified by Law 20.402 of 2009.
- Independent Coordinator of the National Electricity System (Coordinador Independiente del Sistema Eléctrico Nacional): Law 20.936 created this coordinator, who is responsible for preserving the safety of the service in the electric system, guaranteeing economic operation, guaranteeing open access to the transmission systems, and coordinating and determining 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 (Panel de Expertos): is an autonomous collegiate body created in 2004 by Law No. 19.940, whose function is to rule on differences of understanding, conflicts or disagreements resulting from the application of the electricity legislation between electricity companies and other entities and which the latter submit to its consideration. The rulings of this entity are binding on the parties.

Some of the main regulatory bodies for the sanitation sector (drinking water and sewage) in Chile are:

- Ministry of Public Works (“Ministerio de Obras Públicas - MOP”): grants the concessions and promotes the supply of water and the sanitation in rural zones through its Sanitation Programs Department. Besides to its proper functions, in respect to the sanitation sector it is charged with the administration of legislation on the subject of water resources, the assignment of water rights and the approval of the concession rights to establish, construct and exploit sanitation utilities.
- Superintendence of Sanitary Service (“Superintendencia de Servicios Sanitarios - SISS”): Chilean State entity that regulates and monitors the companies that render the drinking water supply and the collection and treatment of wastewater utilities to the urban population.
- Ministry of Health: monitors water quality in the sanitation utilities not under jurisdiction of the Superintendence (which are not public sanitation utilities) and officializes the quality standards studied under the provisions of the National Standardization Institute.
- Ministry of Economy, Development and Reconstruction (Ministerio de Economía, Fomento y Reconstrucción): 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 industry, services and commerce. Its major lines of action are related to the design and promotion of Innovation and Entrepreneurship Policies. Regarding the sanitation sector its main function is the setting of regulated prices, at the proposal from the Superintendence.

3. Legislation for El Salvador

A restructuring process of the electrical sector was developed in El Salvador, which materialized in a juridical and institutional framework that aims to promote the competition and necessary conditions 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.

3.1 Regulatory framework

The legal framework of the Salvadorian electric sector is comprised by the General Superintendence of Electricity and Telecommunications (“Superintendencia General de Electricidad y Telecomunicaciones” -SIGET”) Creation Act, issued through Legislative Decree 808 of September 12, 1996, that gave juridical life to the regulatory entity; as well as the Electricity General Act (“Ley General de Electricidad - LGE”), issued through Legislative Decree 843 of October 10, 1996, and by the Bylaws of the Electricity General Act, established through Executive Decree 70 of July 25, 1997, including its modifications.

As a result of the restructuring process of the electrical sector the Transaction Unit (“Unidad de Transacciones S.A. - UT”), that manages the Wholesale Market of Electric Energy, and the Empresa de Transmisión de El Salvador (ETESAL) were created, at the same time that the electricity distribution and thermal generation companies were privatized. Further, the hydro-electrical and geothermal generation activities were separated.

3.2 Regulatory entities

Some of the main regulatory entities at 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 production, productivity, and the rational use of resources. Among its responsibilities it has to define the commercial policy of the country, the follow-up and promotion to the Central American economic integration, and to lead the Energy National Council (Consejo Nacional de Energía). It also contributes to the development of competition and competitiveness of productive activities, both for the domestic and external markets.
- **General Superintendence of Electricity and Telecommunications (“Superintendencia General de Electricidad y Telecomunicaciones - SIGET”):** It is a not-for-profit public service autonomous institution. Its autonomy includes administrative and financial matters, 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 (“Unidad de Transacciones - UT”):** Has among its functions the transparent and efficient managing of the wholesale electrical energy market and operating the transmission system, maintaining its security and quality, and providing market operators with satisfactory responses for the development of its activities. Likewise, it coordinates with the Regional Operator Entity (“Ente Operador Regional - EOR”) the energy transactions that El Salvador carries out with other countries at the Central American and international levels. Finally, it determines responsibilities in case of failures in the systems.
- **National Energy Council (“Consejo Nacional de Energía - CNE”):** is the superior, governing and regulatory authority for energy policy, whose objectives are to draw up the National Energy Policy and short-, medium- and long-term energy planning; to foster the existence of regulatory frameworks to promote investment and development in the energy sector; to monitor the proper functioning of energy markets; to promote rational energy use; to develop and expand renewable energy resources; and to promote the integration of regional energy markets.

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 on the interest of the private initiative.

4.1 Regulatory framework

With the Political Constitution as a legal handle, in 1996 the General Electricity Act was declared (Decree No. 93-96), through which the fundamental juridical norms to facilitate the acting of the different sector of the electrical system were established.

4.2 Regulatory entities

Some of the main energy regulatory entities in Guatemala are:

- **Ministry of Energy and Mines:** The 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 coordinating policies between the National Commission of Electric Energy (CNEE) and the Manager of the Wholesale Market (AMM). This government office also has the authority to grant authorization permits for the operation of the distribution, transmission and generation companies.
- **National Electrical Power Commission (“Comisión Nacional de Energía Eléctrica - CNEE”):** 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 directorate is five years.

- Wholesale Market Administrator (“Administrador del Mercado Mayorista - AMM”): is the entity in charge of managing the Guatemalan wholesale market, a private entity created by the General Electricity Act, that coordinates operation of generating facilities, 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 dispatch and managing the electricity resources, in such a way that it minimizes the operating costs, including failure costs, 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 dispatch of electricity. AMM’s bylaws are subject to the 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.

5. Legislation for Mexico

5.1 Regulatory framework for water and sanitation

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 sewage utilities are mainly derived from a series of initiatives promoted by the National Water Commission (“Comisión Nacional de Aguas - CONAGUA”) in the 90’s.

The National Water Commission (CONAGUA) is a decentralized administrative agency of the Ministry of the Environment and Natural Resources, created in 1989, whose responsibility is to manage, regulate, control, and protect national water resources in Mexico.

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 sewage is:

- Reforms in 1983 to Article 115 of the constitution, with which the municipal character of the water and sewage utilities was ratified and strengthened, which forced to channel the state authorities’ role in this matter to charge them with 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 with the administrative and financial autonomy necessary for the efficient provision of utilities, together with the introduction of participatory schemes for the private sector.
- Greater involvement of the state authorities in the management of national water resources, through agreements that, pursuant to the provisions of Article 116 of the constitution, can be entered into by the federation with the state governments so that the latter can undertake or exercise different tasks or attributions, of exclusive competence of the federal government. This possibility was reinforced even more with the amendments and additions to the National Water Act that entered into force and effect in 2004.

5.2 Regulatory entities

Some of the main sanitation regulatory entities in Mexico are:

- Secretariat of the Environment and Natural Resources (“Secretaría de Medio Ambiente y Recursos Naturales - SEMARNAT”): in the different environments of society and public function, it incorporates criteria and instruments that assure the optimal protection, preservation, and use 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 involvement that shall correspond to other offices and entities.

- National Water Commission (“Comisión Nacional del Agua - CONAGUA”): With the interest of the society, it manages and preserves the national water resources 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 water resource and its inherent public goods and protects the water bodies to guarantee a sustainable development and the preservation of the environment.
- Social Development Secretariat (“Secretaría de Desarrollo Social - SEDESOL”): Defines the commitments of the management 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 way with the society.

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 Public Utilities National Authority (“Autoridad Nacional de los Servicios Públicos - ASEP”), and also creates a transparent process for setting the tariffs for energy sale to regulated clients.

6.1 Regulatory framework

The regulatory regime mainly consists of the following norms:

- Law 6 of February 3, 1997: dictates the regulatory and institutional framework for the provision of the electricity public utility. It establishes the regime to which the electrical energy distribution, generation, transmission and commercialization activities shall be subject.
- Law 57 of October 13, 2009 makes several modifications to Law 6 of 1997, among them there are: the obligation for the generating companies to participate in the energy or power purchase processes, the compulsoriness for Empresa de Transmisión Eléctrica S.A. (ETESA) for 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 establishes the right of the clients to refrain from paying for the portion they may claim and grants a 30-day term to claim before the regulator in case of not being satisfied with the answer given by the distributing company.
- Law 58 of May 30, 2011 modifies the articles related to rural electrification, among which are: the modification of the calculation of subsidy that the Rural Electrification Office (“Oficina de Electrificación Rural - OER”) must pay to 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 comprised by the contributions of market agents selling electric energy and shall not exceed 1% of their net profit before taxes.

6.2 Regulatory entities

Some of the main energy regulatory entities 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 assuring supply safety, the rational and efficient use of the resources and energy in a sustainable way, according to 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 grid with greater and more varied renewable and clean resources (wind, gas, among others).

- The National Authority for Public Utilities (“Autoridad Nacional de los Servicios Públicos - ASEP”): Established according to the law of the regulatory entity of public utilities of 1996. It is an autonomous Government entity responsible of regulating, controlling, and auditing the provision of the water and sewage, telecommunications, radio and television, electricity and natural gas utilities.

On February 22, 2006, through Decree Law 10, the Public Utilities 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 of the regulatory entity but with a general manager 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 final stage of the administrative process.

- The Planning Unit of the Electric Transmission Company (“Unidad de Planificación de la Empresa de Transmisión Eléctrica - ETESA”): develops the reference expansion plans and projects the global requirements of energy and the means to satisfy those requirements, including the development of alternative sources and establishing programs to preserve and optimize the use of energy. The public utilities companies are called to prepare and present their expansion plans to ETESA.
- The National Dispatching Center (“Centro Nacional de Despacho - CND”): operated by ETESA, plans, supervises and controls the integrated operation of the National Interconnected System (“Sistema Interconectado Nacional”). Receives offers from generators who participate in the energy sale market (spot), determines the spot prices of energy, manages the transmission network, and provides the settlement values between suppliers, producers, and consumers, among others.
- The Rural Electrification Office (“Oficina de Electrificación Rural - OER”): is responsible for promoting the electrification in unserved, unprofitable and non-concessional rural areas.

Note 2. Significant accounting policies

2.1 Basis for preparation of financial statements

The EPM Annual Consolidated Financial Statements were prepared in accordance with the Accounting and Financial Reporting Standards accepted in Colombia (NCIF, for its Spanish initials) and adopted by the Nation's General Accounting Office through Resolution 037 of 2017 and Resolution 049 of 2019 (hereinafter “IFRS adopted in Colombia”). These accounting and financial reporting standards are based on the International Financial Reporting Standards (hereinafter “IFRS adopted in Colombia”) issued by the International Accounting Standards Board (hereinafter, IASB), as well as the interpretations issued by the International Financial Reporting Standards Committee (hereinafter, IFRIC). These financial statements are harmonized with the generally accepted accounting principles in Colombia as set forth in the Annex to Decree 2420 of 2015 and its subsequent amendments.

The Group's consolidated financial statements are prepared in accordance with the current International Financial Reporting Standards (hereinafter “IFRS”) issued by the International Accounting Standards Board (hereinafter “IASB”) and the interpretations issued by the International Financial Reporting Interpretations Committee (“IFRIC”).

The presentation of financial statements in conformity with IFRS adopted in Colombia requires making estimates and assumptions that affect the amounts reported and disclosed in the financial statements, without undermining the reliability of the financial information. Actual results may differ from said estimates. Estimates and assumptions are constantly revised. Revision of accounting estimates is recognised for the period in which the estimates are revised if the revision affects such period or in the revision period and future periods. The estimates made by the Management when applying the IFRS adopted in Colombia, 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 on Note 3. Significant accounting judgments, estimates, and causes of uncertainty in the preparation of financial statements.

EPM and each of its 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. 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, some equity investments at fair value through equity, as well as all finance derivatives, assets and liabilities recognised that are designated as hedged items in a fair value hedging, which recorded value is adjusted with the changes in fair value attributed to the risks object of the hedging.

Consolidated financial statements are presented in Colombian pesos and their figures are stated in millions of Colombian pesos.

2.2 Consolidation Principles

The consolidated financial statements include the financial statements of EPM and of its subsidiaries as of 31 December 2019 and 2018. Using the global integration method, EPM consolidates the financial results of the companies on which control is exercised, which are detailed in Note 9. Investment in subsidiaries.

Control is obtained when any of the companies of the Group controls the relevant activities of the subsidiary, generally operating and financing activities, it is exposed, or has the right, to the variable returns of the subsidiary and has the capacity to leverage its power over the subsidiary to influence its returns.

The general presumption is that a majority of voting rights results in taking control. To support this presumption, and when the Group has less than the majority of the voting or similar rights on an investee, the Group considers all the pertinent facts and circumstances to evaluate whether it has the power over an investee, including contractual agreements with other vote holders in the investee, rights arising from other contractual agreements, and voting rights of the Group as potential voting rights. If the facts and circumstances suggest that one or more of the three control elements change, the Group must reassess whether it controls the investee.

The consolidated financial statements of the Group are presented in Colombian pesos, which is the functional and presentation currency of EPM, holding of the Group. Each subsidiary of the Group determines their own functional currency and includes the items in their financial statements using that functional currency.

The information of all companies of the Group was prepared using the same Group's accounting policies, under IFRS adopted in Colombia.

For consolidation purposes, the financial statements of the subsidiaries are prepared under the Group accounting policies and are included in the consolidated financial statements from the acquisition date to the date when the Group loses control.

Intragroup assets, liabilities, equity, revenue, costs, expenses and cash flows are eliminated in the preparation of the consolidated financial statements; i.e., those related to transactions between the Group Companies, including unrealized internal profits and losses, 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. 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 the Group loses control over a subsidiary, the assets (including goodwill), liabilities, non-controlling interests, and other components of the net equity are derecognised; any residual participation it may retain is measured at fair value, the profit or loss that arise from this measurement are recognised through profit or loss for the period.

Non-controlling interests in the consolidated net assets of subsidiaries are presented separately from the Group's equity. The profit or loss for the period and the other comprehensive income are also attributed to the non-controlling and controlling interests.

Changes in the participation share of the Group in subsidiaries that do not result in the loss of control, are recorded as equity transactions. The recorded value of the Group's non-controlling and controlling interests are adjusted to reflect the changes in their relative participation 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, and directly recognised in net equity.

Whenever the Group loses control over a subsidiary, the profit or loss is recognised and is calculated as the difference between: the sum of the fair value of the received consideration and the fair value of any retained participation, and the previous recorded value of assets (including goodwill) and liabilities of the subsidiary and any non-controlling participation. All amounts related to the subsidiary, previously recognised through 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). The fair value of the retained investment 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 or 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 held for negotiation purposes or it is expected to be realized over a term not exceeding one year, after the period being reported or it is cash and cash equivalents that is not subject to restrictions for exchange or use 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 held for negotiation purposes or when it is expected to be settled over a term not exceeding one year after the period being reported, or when the Group does not have an unconditional right to postpone its settlement 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 assessment of facts and circumstances (i.e., the underlying contractual cash flows):

- When the 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) for it to correspond 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 allocation can be made in a reliable manner.

2.4 Cash and cash equivalents

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 months or less from their acquisition date. Callable bank overdrafts that are an integral part of the cash

management of the 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, the 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 recognised as expenses when incurred and are included in administrative expenses.

Identifiable acquired assets and assumed liabilities are recognised at fair value on the acquisition date, except that:

- Deferred tax assets or liabilities and assets or liabilities related to employee benefit arrangements shall be recognised and measured in conformity with IAS 12 Income taxes adopted in Colombia and IAS 19 Employee Benefits adopted in Colombia, respectively.
- Liabilities or equity instruments related to payment arrangement based on shares of the acquired entity or payment arrangement based on the Group's shares made as replacement of the arrangements with payment based on shares of the acquired entity are measured in conformity with IFRS 2 Share-based payment at the date of acquisition.
- The assets (or group of assets for disposal) that are classified as held for sale in conformity with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations are measured in conformity with such Standard.

When EPM Group acquires a business, the financial assets acquired 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 measured. This includes the separation of implicit derivatives in contracts hosted by the acquired entity.

The Group recognises an intangible asset acquired in a business combination, regardless of goodwill, provided that such intangible asset meets the recognition criteria, is identifiable, or arises from contractual and legal rights; it measures the value of a reacquired right recognised 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 participation is reevaluated as of their acquisition date at fair value and any resulting profit or loss is recognised. The accounting treatment of what is recorded in the Other comprehensive income (OCI), 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 recognised in other comprehensive income, are reclassified into the profit or loss 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 presentation period 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 recognised adjustments to the provisional amounts or recognises additional assets or liabilities necessary to reflect the new information obtained on facts and circumstances that existed on the acquisition date and, had been known, would have affected the measurement of the amounts recognised on that date.

The transferred consideration is measured at fair value, on the acquisition date, of the delivered assets, the incurred in or assumed liabilities and the equity instruments issued by the 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 assets acquired, liabilities and contingent liabilities assumed on the acquisition date. The resulting profit or loss on the measurement of the participation previously maintained is recognised in the profit or loss for the period or in the other comprehensive income. When the transferred consideration is lower than the fair value of the net assets of the acquired entity, the corresponding gain is recognised in the results for the period, on the acquisition date.

Any contingent consideration from a business combination is classified as asset, liability or equity and is recognised at fair value on the acquisition date and is included as part of the consideration transferred in a business combination. Changes to fair value after the measurement period of a contingent consideration, classified as financial asset or liability, are recognised in the profit or loss for the period, or in the case of concrete liabilities designated at fair value through changes in profit and loss, the amount of change in fair value that is attributable to changes in the credit risk of the liability are recognised in the other comprehensive income; it will not be remeasured when classified as equity and its subsequent settlement is recognised within equity. If the consideration does not classify as a financial liability it is measured in conformity with the applicable IFRS adopted in Colombia: an asset or liability is remeasured 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 consideration 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 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 (CGU) of the Group expected to benefit from the combination, regardless of whether other assets or liabilities of the acquired entity are assigned to those units. Goodwill that arises from a business acquisition is recorded at cost on the acquisition date less the accumulated impairment losses, if any.

For impairment assessment purposes, goodwill is assigned to each CGU (or groups of CGUs) of the Group that expects benefit from the synergies of that combination.

CGUs that are assigned the goodwill are subject to annual impairment assessments, or with higher frequencies if there is indication that the unit may have suffered impairments. If the recoverable amount of the CGU is less than the carrying amount of the unit, the impairment loss is assigned first in order to reduce the carrying amount of goodwill assigned to the unit and then to the other assets of the unit, proportionately, based on the carrying amount of each asset in the unit. Any impairment loss for goodwill is directly recognised in profits or losses. The impairment loss recognised for goodwill purposes cannot be reverted in the following period.

When 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 recorded value of the transaction when determining the gain or loss for the disposal of the operation. Derecognised goodwill is determined based on the sold portion of the operation, which is the ratio between the carrying value of the sold operation and the carrying value of the CGU.

If the initial recognition of a business combination is incomplete at the end of the accounting period when the combination takes place, the Group discloses the provisional values of the items with incomplete recording. These provisional values are adjusted during the measurement period and additional assets and liabilities are recognised, to reflect the new information obtained on facts and circumstances that existed on the date of acquisition that would have affected the values recognised on that date.

Business combinations under common control are recorded using the pooling-of-interest method as a reference. Under this method, assets and liabilities involved in the transaction are reflected at the same values used in the consolidation of the financial statements of the controlling entity of the companies under common control, any difference between the paid amount and the recorded value of the assets acquired and transferred liabilities is recognised as an equity transaction; revenue, costs and expenses

of the combined companies (after Elimination of Inter-Segment Transactions) are combined from the beginning of the period in which the combination occurs until the date the combination of entities under common control takes place.

2.6 Investments in associates and joint ventures

An associate is an entity on which the Group has significant influence over the financial and operation policy decisions, without getting to have their control or joint control.

A joint venture is an arrangement in which the Group has joint control, under which the Group has rights over the net assets of the arrangement, rather than rights over its assets and obligations for its liabilities.

On the acquisition date, the surplus of the acquisition cost over the share of the net fair value of the identifiable assets acquired, liabilities and contingent liabilities assumed of the subsidiary is recognised as goodwill. Goodwill is included in the recorded value of the investment and is neither amortized nor individually subject to value impairment testing.

Investment in associates and joint ventures is measured in the consolidated financial statements by the 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 acquisition, by the portion of the net assets of the entity that corresponds to the investor. The profit or loss for the period for the Group includes its participation in the profit for the period of the investee and the other comprehensive income includes its participation in the other comprehensive income of the investee. When there are variations in the percentage of ownership in the subsidiary that do not imply a loss of control, the effect of these changes is recognised directly in equity. When ownership of the Group in the loss of an associate or joint venture exceeds ownership of the Group thereon (which includes any long-term ownership that, in substance, forms part of the net investment of the Group in the associate or joint venture), the Group ceases to recognise its ownership in future losses. Additional losses are recognised 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 company resumes recognition of its ownership therein only after its share in the aforementioned profit equals the share of unrecognised losses.

Investments in associates and joint ventures are accounted for using the equity method from the date on which the investee becomes an associate or joint venture.

All dividends received from the associate or joint venture are recognised as a reduction in the value of the investment when the right of the company to receive payment is established.

The Group periodically analyses the existence of impairment indicators and if necessary, recognises losses for impairment in the investment of the associate or joint venture. Impairment losses are recognised through profit or 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 necessary costs for its sale, and its recorded value.

When significant influence over the associate or the joint control over the joint venture is lost, the Group measures and recognises any residual investment that may keep in it its fair value. The difference between the recorded value of the associate or joint venture and the fair value of the retained residual investment, with the value resulting from its sale, is recognised in the profit or loss for the period.

The Group discontinues the use of the Equity Method from the date on which the investment ceases to be an associate or joint venture, or the date on which the investment is classified as held for sale. Additionally, the Group records all amounts previously recognised in other comprehensive income with relation to that associate or joint venture on the same basis that would have been required if said associate or joint venture had directly sold the financial assets or liabilities. Therefore, if a profit or loss previously recognised in other comprehensive income by the associate or joint venture had been reclassified into profits or losses at the moment of the sale of the related assets or liabilities, the Group

would reclassify the profit or loss from equity into profits or losses (as a reclassification adjustment) upon discontinuation of the usage of the Equity Method.

2.7 Joint operations

Is a joint arrangement whereby the parties that have joint control of the arrangement have the right to the assets and obligations related to the liabilities, related to the arrangement.

In joint operations the Group recognises 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 income from the sale of its share in the product that arises from the joint operation; its share in income 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. The Group records the assets, liabilities, income, and expenses related to its ownership in a joint operation according to the guidelines applicable in particular to the assets, liabilities, income and expenses.

2.8 Functional and foreign Currency

The financial statements of the Group are presented in Colombian pesos, the functional and presentation currency of the holding.

Transactions 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 at the period's closing date, 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 on the date of the original transactions.

All exchange differences are recognised in profit or loss, except for amendments arising from capitalizable interest costs and those arising from loans in foreign currency to the extent that they are considered as adjustments to interest costs.

For the presentation of the consolidated financial statements of the Group, the assets and liabilities of the businesses overseas, including 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. Income, costs and expenses and cash flows are translated using the average exchange rates of the period.

Foreign exchange differences that arise from the conversion of businesses overseas are recognised in other comprehensive income, as well as the exchange differences of the long-term receivables or payables that are part of the net investment made abroad. In the disposition of foreign business, the item of other comprehensive income that relates to the foreign business is recognised through profit or loss for the period.

Adjustments corresponding to goodwill and fair value over identifiable assets acquired and liabilities assumed 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 foreign exchange difference that may arise shall be recognised in other comprehensive income.

Additionally, regarding the partial disposition of a subsidiary (which includes a business overseas), 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 recognised in profit or loss. In any other partial disposition (i.e., partial disposition 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 profit or loss only the proportional part of the accumulated amount for foreign exchange differences.

2.9 Revenue

Revenue basically corresponds to the result of the Group's main activity, which is the rendering of public home utilities of electric power, natural gas, water supply and sewage, and is recognised when the service is rendered or at the time of the delivery of the goods, to the extent that the Group's performance obligations are met. When the service has been provided and not invoiced, revenue is recognised as an estimate. Revenue is measured at the value of the consideration received or receivable, excluding taxes and other obligations. Discounts, compensations for quality of service and financial components granted are recorded as adjustments to revenue. The financing component is only recognised if the contract with customers has a duration longer than one year.

The most representative revenue from the electric power business in Colombia are the following:

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 steady power for reliability charge (ENFICC, for its Spanish initials), which guarantees compliance with the Steady Power Obligation (OEF, for its Spanish initials) assigned in auction for the assignment of steady power obligations or the mechanism replacing it.

Long-term contracts: a contract for the sale of electric energy between traders and generators which is settled in the energy exchange market, under this modality of energy contract generators and traders freely agree on quantities and prices for the purchase and sale of electric energy for periods longer than one day. For long-term power purchase contracts, with price lower than that of the market and whose intention is not to use the energy purchased in the operation but to resell it in a market to obtain profit, it is considered that it does not comply with the Exception for own use.

Secondary market of steady power or secondary market: A bilateral market in which generators negotiate among themselves a back-up contract to ensure, for a given period, partial or total compliance with the steady power obligations acquired by one of them.

Non-regulated market energy sales: Is the electric energy sold in the market to customers whose maximum demand exceeds a value in MW (megawatts) or a monthly minimum energy consumption in MWh (megawatt-hour), 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. Such electricity purchases are made at freely agreed prices between buyer and seller.

Regulated market energy sales: Is the electric energy sold to customers whose monthly consumption is less than a predetermined value and is not entitled to negotiate the price paid for it, since both concepts are regulated; usually uses power for its own consumption or as an input for its manufacturing processes and not to undertake marketing activities with it.

Automatic generation regulation (AGC): is a system for the control of the secondary regulation, used to accompany the variations of load through electricity 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.

Steady Power (or Firm Energy): 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.

Natural gas revenue comes from the distribution and sale of natural gas to the regulated and non-regulated markets.

In the water business, revenue comes from the provision of water and sewage utilities.

Each other countries where the Group renders services, including energy, have their own regulation, which is described for each country in Legal and regulatory framework of note 1.

At the time of income recognition, the Group assesses, based on specific criteria, whether it acts as a principal or as a commission agent and thus determines whether gross or net income must be recognised for marketing activities.

2.10 Contracts with Customers

When contract results can be reliably measured, the Group recognises revenue and expenses associated to contracts with customers, measuring the advance level in the fulfilment of the performance requirements using the resource method, as a function of the ratio represented by the costs earned by the work conducted to that date and the estimated total costs up to its completion.

The incurred cost includes the costs, including borrowing costs directly related to the contract, until the work has been completed. Administrative costs are recognised through profit or loss for the period.

Incremental costs incurred by the Group to obtain or fulfill contracts with customers are recognised as an asset in the statement of financial position within the Other assets item and are amortized on a linear basis over the life of the contract, provided that the term of the contract is greater than one year. Otherwise, the Group recognises it directly in the profit or loss for the period.

Payments received from customers before the corresponding work has been performed, are recognised as a liability in the Statement of financial position as other liabilities.

The difference between revenue recognised in the statement of income for the period and the billing is presented as asset in the statement of financial position named Trade and other receivables, or as liability named Other liabilities.

For the initial recognition of a receivable from a contract with a customer, the difference between the measurement of the receivable and the value of the corresponding revenue is presented as an expense in the statement of comprehensive income called Impairment of receivables.

2.11 Written premiums and acquisition cost

Written premiums comprise the total premiums receivable for the period of coverage. Income from written premiums is recognised proportionally, throughout the duration of the coverage; income from these premiums is reduced by cancellations and nullifications; for cancellations, it corresponds to the amount of the premium accrued up to the time of cancellation due to expiration of the payment deadline.

Income from premiums accepted in reinsurance is 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 part of the written premiums.

2.12 Deferred reinsurance commission Income

In the Group, deferred commissions are recorded from undertaking its reinsurance activity, where income collected from commissions is deferred to the reinsurers by the premium cessions made each month. The reinsurer pays the transferor a commission on the premiums it receives in order to offset the costs of capturing the business and maintaining the portfolio, the value of the commission is established as a percentage of 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 company (reinsurer), in which the insurance company relinquishes, totally or partially, to the reinsurer, the risks assumed with its insureds.

Premiums corresponding to the ceded reinsurance are recorded according to the conditions of the reinsurance contracts and under the same criteria of the direct insurance contracts.

All receivables and payables generated in the relationship with the reinsurer are managed independently and are not subject to compensation.

2.14 Government grants

Government grants are recognised at fair value when there is reasonable certainty of the grants being collected and that all the conditions laid down shall be met. Grants that pretend to offset costs and expenses already incurred in, without subsequent related costs, are recognised through profit or loss for the period in which they become enforceable. When the grants relate to an asset, it is recorded as deferred income and is recognised through profit or loss for the period on a systematic basis throughout the estimated lifespan of the corresponding asset. The benefit of a government loan at an interest rate below market is treated as a government grant, 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 the Group companies are located, the regulatory frameworks and the plurality of operations that the companies undertake make each enterprise a taxable entity, i.e. a payer of taxes, rates and contributions on a national and territorial basis. These are liabilities generated from the central government, the states/departments, municipal entities and other active subjects, once the conditions foreseen in the corresponding acts and laws issued are met.

Amongst the most relevant taxes the income tax and the value-added tax are detailed.

Income Tax

- **Current:** 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 recognised through current tax according to the cleaning made between the fiscal income and the recorded profit or loss affected by the income tax rate of the current year and pursuant to the provisions of the tax rules of the country. Tax rates and rules used for computing those values are those enacted or substantially approved at the end of the period being reported, in the countries where the Group operates and generates taxable profits.

Tax income differs from profit for the period as income and expense items imposable 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 tax authority and if there is the intention to settle them for the net value or to realize the asset and settle the liability simultaneously.

- **Deferred:** deferred income tax is recognised using the balance sheet method calculated on the temporary differences between the fiscal bases of the assets and liabilities and their recorded values. Deferred tax liabilities are generally recognised for all imposable temporary differences, while deferred tax assets are recognised 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 realized. Deferred taxes are not discounted.

Deferred tax assets and liabilities are not recognised 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, did not affected neither the book gain nor the tax income or loss; and for deferred tax liabilities, whenever it arises from the initial recognition of goodwill.

Deferred tax liabilities related to investments in subsidiaries, associates and participation in joint ventures, are not recognised when the revision opportunity of temporary differences can be controlled, and it is probable that said differences will not be reversed in the near future. Deferred tax assets related to investments in subsidiaries, associates and participation in joint ventures, shall be recognised only if a reversal in temporary differences for the near future is probable, and that

availability of future taxable profit against which those deductible differences will be imputed is also probable.

The recorded value of deferred tax assets is reviewed in each presentation date and is reduced to the extent that enough taxable profits are available for use as a whole or in part of the deferred tax asset is no longer probable. Deferred tax assets that are not recognised are reassessed on each presentation date and are recognised to the extent that it is probable that future taxable gains profits allow their 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 settled, based on tax rates and rules that were approved on the presentation date, or which approval procedure is close to completion for such date. Measurement of deferred tax assets and liabilities will reflect the tax consequences to be derived from the way in which the entity expects, at the end of the period being reported, to recover or settle the recorded value of its assets and liabilities.

Deferred tax assets and liabilities must be presented as non-current.

Deferred tax assets and liabilities are offset if there is a legally enforceable right for it and if they are related to the same tax authority.

Deferred tax is recognised through profit or loss for the period, except that related to items recognised outside profit or loss; in the latter case it will be presented in the other comprehensive income or directly in equity.

With the purpose of measuring deferred tax assets and liabilities for investment properties measured using the fair value model, the recorded value of those properties is presumed to be fully recovered through their sale, unless that presumption is challenged. The presumption is challenged when the investment property is depreciable and is kept within a business model which object is to consume, substantially, all the economic benefits that are generated by the investment property through time, and not through 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 which objective is to consume, substantially, all economic benefits generated by investment properties over time rather than through the sale. Therefore, management have determined that the presumption of "sale" established in the modifications to IAS 12 Income tax, is applicable.

Whenever current tax or deferred tax arises from the initial recording of business combination, the tax effect is considered within the recording of the business combination.

Value-Added Tax - VAT

The companies of the Group located in Colombia, which sell tangible movable goods and some real estate; sell or transfer rights on intangibles associated with industrial property; provide services in Colombia or from abroad; import goods; operate gambling services or sell tickets to gambling games, are responsible for the common regime of this tax. The tax generated is recognised as a value to be paid to the tax administration, from which the tax paid on the purchase or acquisition of inputs is discounted; but when the company generates both income excluded from VAT and income that is exempt and taxed, it must make an apportionment of the tax paid to determine what percentage of this is to be discounted.

Currently, in Colombia the provision of energy, water, sewage and domestic natural gas utilities are excluded from this tax; therefore, the VAT paid on purchases is part of the cost.

The general rate for this tax in Colombia is 19% and exists a differential rate of 5% and some goods and services exempt (0%).

In Panama the Tax on the Transfer of Material Goods and Services (ITBMS, for its Spanish initials), is generated by the transfer of movable tangible goods and the rendering of services in Panama. The general rate of the tax is 7%, but there are also rates of 10% and 15%.

In Guatemala, the sale of personal property, the rendering of services, imports, leasing of personal and real estate property, dation in payment of personal and real estate property, self-consumption of goods and other operations with real estate property, such as the first sale of those, generate Value Added Tax. The general rate is 12%; but it is reduced to 5% in the sales of small taxpayers, there are exempt goods with 0% rate and in the sale of used vehicles a fixed amount is charged. The tax period is monthly, and its effect is translational to the final consumer.

The value added tax in El Salvador has a general rate of 13% and there are exempted goods (0% rate); the tax is levied on the transfer of tangible personal property and the provision of services; the import of services; the import and export of tangible personal property; and the self-consumption of inventories or the transfer of tangible property for promotional purposes. However, the transfer of fixed assets that have been used for four years or more is not subject to the tax.

In Mexico, the Value Added Tax is caused in its territory by acts or activities such as sale of goods, provision of independent services, temporary use or enjoyment of goods and import of goods and services. The general rate is 16%; however, there are acts that are taxed at 0%, exempt and not subject to the tax.

Value added tax (VAT) in Chile is levied on sales and other transfer operations of tangible personal property and real estate, except land; on the rendering of services, provided or used in the country; on the import of goods; on withdrawals of inventory, contributions in kind and leasing of personal property; and on the recurrent or habitual sale of real estate, but land is exempt, so that it must be subtracted from the taxable base for VAT purposes. The general tax rate is 19%.

2.16 Assets classified as held for sale and discontinued operations

Non-current assets and groups of assets for disposition are classified as held for sale if their recorded value will be recovered through a sale transaction rather than through continuing use. These assets or groups of assets are presented separately as current assets and liabilities in the statement of financial position at the lower between the recorded value or the fair value less selling costs and are not depreciated or amortized from the date of classification.

This condition is met if the asset or group of assets is available, in its current condition, for immediate sale, the sale transaction is highly probable and is expected to be completed within one year from the date of classification.

When the Group is committed to a plan of sale that involves the sale of an investment, or a portion of an investment, in an associate or joint venture, the investment or the portion of the investment to be sold is classified as held for sale when the criteria described above are met, and the Group discontinues the use of the equity method in relation to the portion that is classified as held for sale. Any retained portion of an investment in an associate or joint venture that is not classified as held for sale continues to be accounted using the equity method. The Group discontinues the use of the equity method at the time of sale when the sale results in the Group losing significant influence over the associate or joint Venture.

After the sale is made, the Group accounts for any retained interest in the associate or joint venture in accordance with IFRS 9 Financial Instruments, unless the retained interest is still an associate or joint venture, in which case the Group uses the equity method.

Income, costs and expenses from a discontinued operation are presented separately from those from continuing operations, in a single item after income tax, in the consolidated statement of comprehensive income for the current period and the comparative period of the previous year, even when the Group retains a non-controlling interest in the company that was once a subsidiary after the sale.

2.17 Property, Plant and Equipment

Property, 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 necessary place and conditions to operate in the way foreseen by the Group, borrowing costs for projects under construction that take a substantial period to complete, if the recognition

requirements are met, and the present value of the expected cost of decommissioning the asset after use, if the recognition criteria for a provision are met.

Constructions in progress are measured at cost less any impairment loss recognised and includes indispensable expenditure 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. Said constructions in progress are classified in the proper categories of property, 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.

The Group capitalizes as greater value of the assets, additions or improvements made thereof, provided that any of the following conditions is met: a) They increase their lifespan, b) They increase their productive capacity and operating efficiency thereof and c) They reduce costs to the Group. All other repair and maintenance costs are recognised through the statement of comprehensive income as incurred.

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 the other property, plant and equipment. They depreciate considering the permanence time in the storage and the technical lifespan of the asset once its use begins.

Depreciation begins when the asset is available for use and is calculated in a straight-line basis throughout the estimated lifespan of the asset as follows:

Plants, pipelines and tunnels	
Civil work	50 to 100 years
Equipment	10 to 100 years
Networks, lines and cables	
Electric transmission network	30 to 40 years
Electric distribution network	30 to 40 years
Water network	40 to 80 years
Sewerage network	30 to 80 years
Gas network	60 to 80 years
Buildings	50 to 100 years
Communication and computer equipment	5 to 40 years
Machinery and equipment	7 to 40 years
Furniture, fixtures and office equipment	10 to 15 years
Land ⁽¹⁾	10 to 20 years

⁽¹⁾ Corresponds to the affiliate Emvarias that depreciates the land on which it performs the final disposal activity due to the detriment it suffers with the disposal of solid waste, environmental degradation and period of recovery that goes beyond 20 years.

Lifespans 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 should have different lifespans. The depreciation method used is the straight-line; the residual value calculated for the assets is not part of the depreciable amount.

A component of property, plant and equipment and any significant part initially recognised, is derecognised once disposed of or when it is not expected to obtain future economic benefits from its use or disposition. Profit or loss at the moment of derecognising the asset, calculated as the difference between the net value of the disposition and the recorded value of the asset, is included in the statement of comprehensive income.

Assets temporarily classified as idle or out-of-service continue to depreciate and are tested for impairment within the CGU to which they are assigned.

Depreciation methods, useful lives and residual values, are reviewed at each reporting date and adjusted if appropriate.

2.18 Leases

Determination of whether an arrangement constitutes or contains a lease is based upon the essence of the arrangement at its initial date, if compliance with the agreement depends upon the use of a specific asset and if it transfers the right-of-use of said asset for a timespan in exchange for a consideration.

At the initial date of the lease contract, the Group acting as lessee recognises an asset for right-of-use and a lease liability, except for leases with a duration of less than 12 months or those which value at new of the underlying asset is less than 15 (fifteen) Current Monthly Minimum Legal Wage (SMMLV).

The Group acting as lessor classifies the lease as operating or finance. A lease is classified as a finance lease when the risks and rewards incidental to ownership of the leased asset are substantially transferred to the lessee; otherwise, it is classified as an operating lease.

EPM Group as a Lessee

Assets delivered under finance lease are recognised and presented as assets in the statement of financial position at the beginning of the lease, for the fair value of the leased asset 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 finance lease liability.

Right-of-use assets are recognised and presented as assets in the statement of financial position at the beginning of the lease, at cost. The corresponding liability is included in the statement of financial position as a lease liability.

Right-of-use assets are amortized over the lifespan of the asset using the straight-line method, if ownership of the underlying asset is transferred at the end of the contract or if a purchase option is exercised. If ownership of the underlying asset is not transferred at the end of the lease term or if no purchase option on the asset is exercised, the asset is depreciated only up to the end of its lifespan or the lease term, whichever comes first.

Lease payments are divided between financial expenses and debt amortization. Finance charges are recognised through profit or loss for the period unless directly attributable to qualifying assets, in which case they are capitalized according to the Group's policy for borrowing costs. Variable lease payments, which depend on an index or rate, are included in the valuation of the lease liability. Leases with a duration of less than 12 months or those whose value at new of the underlying asset is less than 15 (fifteen) SMMLV are recognised as operating leases in the profit or loss for the period over the term of the lease.

EPM Group as a Lessor

Assets leased under finance leases are not presented as property, plant and equipment since the risks associated with the property have been transferred to the lessee, instead a receivable is recognised for an amount equal to the net investment in the lease.

When a lease contract includes land and building components together, the Group assesses the classification of each component separately as a finance or operating lease. If the lease payments cannot be allocated reliably between these two components, the entire lease is classified as a finance lease,

unless it is clear that both components are operating leases, in which case the entire lease is classified as operating lease.

Income from variable leases, dependent on an index or rate, are included in the valuation of the net investment at lease.

Initial direct costs such as commissions, fees, legal, and internal costs that are incremental and directly attributable to negotiating and arranging the lease are included in the measurement of the net investment in the lease at inception and are reflected in the calculation of the implicit interest rate.

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. Income 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 the Group regarding 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 cost of loans applicable to general loans outstanding during the period) to expenditure made in that asset.

Capitalization of borrowing costs begins on the date when the following conditions are met:

- Expenditure made in relation to the asset.
- Borrowing costs are incurred, and
- Necessary activities to prepare the asset for the intended use or for sale are performed.

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 relevant technical or administrative actions are being undertaken. Neither is capitalization of borrowing costs suspended when a temporary delay is required as part of the process of preparing an asset qualified for its use or sale.

Capitalization of borrowing costs is terminated when all activities necessary to prepare the asset for its use or sale have been substantially completed. 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 property

Investment property, are lands or buildings or part of a building or both, held to obtain rentals or capital revaluations (including the investment property under construction for said purposes). Investment properties are initially measured at cost, including transaction costs. The recorded 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 initial recognition, investment properties are measured at fair value reflected by market conditions on the presentation date. All profit or loss arising from changes in the fair values of the investment properties are included in the statement of comprehensive income in profit or loss when they arise.

Investment properties are derecognised, either at the moment of disposition, 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 disposition and the recorded value of the asset is recognised in the statement of comprehensive income in profit or loss in the period when it was derecognised.

Transfers to or from investment property are conducted only when there is a change in their use. In the case of a transfer from an investment property to property, plant and equipment, the cost considered for its subsequent posting is the fair value on the date of use change. 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 recorded value shall be recorded as revaluation surplus applying the IAS 16 Property, plant and equipment.

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, intangible assets are recorded 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, expenditure must be reflected in the statement of comprehensive income in the period in which they incurred.

Lifespans of intangible assets are determined as finite or indefinite. Intangibles assets with finite lifespans are amortized throughout their economic lifespan in a straight-line and assessed to determine if they presented any impairment, whenever there are indications that the intangible asset may have suffered such impairment. The amortization period and the amortization method for an intangible asset with a finite lifespan are reviewed at least at the end of each year. Changes in the expected lifespan or in the expected pattern of consumption of the future economic benefits of the asset are recorded if the amortization period or method changes, as applicable, and are treated as changes in accounting estimates. The amortization expense of intangible assets with finite lifespans is recognised through profit or loss in the statement of comprehensive income in the expense category consistent with the function of the intangible asset.

Intangibles assets with indefinite lifespans are not amortized, but they are subject to annual tests to determine whether they suffer any impairment, either individually or at the cash-generating unit level (CGU). Assessment of the indefinite lifespan is revised on an annual basis to determine whether such indefinite lifespan continues to be valid. If that is not the case, the change of lifespan from indefinite to finite is made prospectively.

Lifespans of intangible assets are:

Concessions and similar rights	As contract effective term
Easements	Indefinite
Capitalized development expenses	Indefinite
Software and IT applications	Indefinite/ finite 3 to 5 years
Licenses	Indefinite/ finite 3 to 5 years
Rights	As contract effective term
Other intangible assets	Indefinite/ finite 7 to 15 years

An intangible asset is derecognised upon disposition, or whenever future economic benefits are not expected from their use or disposition. Arising profits or losses are measured as the difference between the value obtained in the disposition and the recorded value of the asset, and it is recognised through profit or loss in the statement of comprehensive income.

Research and development costs

Research costs are recorded as expenses as incurred. Development outlays in an individual project are recognised as intangible assets whenever the Group can demonstrate:

- The technical feasibility of completing the intangible asset so that it is available for use or sale.
- Its intention of completing 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 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 complete the asset and to use and sell it.
- The capacity of reliably measuring the expenditure during development.

In the statement of financial position, the development expenditure asset is recognised from the moment the element meets the aforementioned conditions for its recognition, and its cost less accrued amortization and the value impairment accrued losses are recorded.

When the development of an intangible asset related to an electricity 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 for use. It is depreciated throughout the period of the expected future economic benefit. During the development period the asset is subject to annual tests to determine whether it has experienced impairment of its value.

Research costs and development costs that do not qualify to capitalization are recorded as expenses through profit or loss in the statement of comprehensive income.

Goodwill

Goodwill represents the difference between the cost of a business combination and the fair value at the moment of acquisition of the assets acquired, liabilities assumed, and contingent liabilities of the acquired party.

Goodwill is not depreciated, it is measured at cost less any value impairment accrued loss and is subject to annual impairment testing, or more frequently when impairment indicators exist. Impairment losses are recognised in profit or loss in the statement of comprehensive income.

For the Cash Generating Units (CGU), which have been assigned goodwill, impairment is assessed annually, 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.

2.22 Financial Instruments

A financial instrument is a contract that gives rise to a financial asset in one entity and simultaneously to a financial liability or equity instrument in another entity.

Financial assets and liabilities are recognised in the statement of financial position when the Group becomes a party according to the contractual conditions of the instrument.

2.22.1 Financial Assets

The Group recognises its financial assets at fair value at the outset. Transaction costs directly attributable to the financial asset are added to or deducted from its fair value if subsequently measured at amortized cost or fair value through other comprehensive income or are recognised immediately in the statement of comprehensive income if the assets are measured at fair value through profit or loss.

For subsequent measurement, financial assets are classified at amortized cost or fair value (through other comprehensive income or through profit and loss) depending on the Group's business model for managing the financial assets and the characteristics of the instrument's contractual cash flows.

– **Financial assets at fair value through profit or loss**

Financial assets at fair value through profit or loss are assets whose contractual cash flows are highly liquid. The Group classifies a financial asset in this category if it is acquired mainly for the purpose of being sold in the short term.

This includes investments made to optimize surplus liquidity, i.e. all those resources that are not immediately allocated to the development of the activities that constitute the company's corporate purpose. The investment of surplus liquidity is made under the criteria of transparency, security, liquidity and profitability, under the guidelines of adequate control and under market conditions without speculative purposes (EPM General Management Decree 2015-DECGGL-2059 of February 6, 2015). Profit or losses arising from changes in fair value are included in the statement of comprehensive income under the heading of financial income or expense, in the period in which the aforementioned changes in fair value occur.

Dividend income is recognised when the Group's right to receive payment is established.

At the same time, the Group can irrevocably allocate a financial asset as measured at fair value through profit or loss.

– **Financial assets at fair value through other comprehensive income**

Debt instruments are classified as assets measured at fair value through other comprehensive income if they are held under a business model whose objective is achieved by obtaining the contractual cash flows and selling the instruments and the instrument also provides, on specific dates, cash flows that correspond solely to payments of principal and interest on the outstanding principal value.

Changes in the fair value of the investment are recorded in other comprehensive income, except for impairment losses or recoveries, interest income and foreign exchange gains and losses which are recognised in profit or loss for the period.

The Group has made an irrevocable decision to present subsequent changes in the fair value of certain investments in equity instruments that are not held for trading in other comprehensive income. Dividends from such investments are recognised in profit or loss when the right to receive payment is established.

On disposition of equity investments at fair value through other comprehensive income, the accumulated value of gains or losses is transferred directly to retained earnings and is not reclassified to profit or loss for the period.

– **Financial assets at amortized cost**

A financial asset is subsequently measured at amortized cost using the effective interest rate³ if the asset is held within a business model whose objective is to maintain it in order to obtain the contractual cash flows and contractual terms of the asset that provide, on specific dates, cash flows that are solely payments of principal and interest on the outstanding principal value.

³ The effective interest rate method is a method of calculating the amortized cost of a financial asset and allocating income over the relevant period. The effective interest rate is the rate that exactly discounts future cash flows from a financial asset (including all fees, commissions and points paid or received that are an integral part of the effective interest rate, transaction costs and other premiums and discounts) over the expected life of the instrument, or if appropriate, a shorter period, to its carrying amount at initial recognition.

Impairment of financial instruments

At each reporting date, the Group recognises 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 lifespan of the asset.

Expected credit loss is estimated considering the probability that an impairment loss by uncollectability may or may not occur and is recognised as profit or loss in profit or loss in the Statement of comprehensive income, reducing the value of the financial asset. The Group assesses the credit risk of accounts receivable on a monthly basis at the time of presenting the reports in order to determine the value correction for expected credit loss on financial assets.

The Group assesses on a collective basis the expected losses for financial assets that are not individually relevant. When the collective assessment of expected losses is performed, receivables are gathered by similar credit risk characteristics, allowing identification of repayment capacity of the debtor, in accordance with the contractual terms of receivables.

The Group determines that a customer's credit risk increases significantly when there is any default event in the financial agreements by the counterparty, or when information, be it internal or obtained from external sources indicates that debtor's payment unlikely, without considering held securities.

Default in agreements is generally measured according to the service contracts and rules for each subsidiary own country, however, there are agreements or individual contracts that indicate default immediately when a payment or obligation is not met.

The Group determines that a financial asset is impaired when there is a breach of financial covenants by the counterparty, or when information, be it internal or obtained from external sources, indicates payment by the debtor is unlikely, without considering held guarantees.

Credit risk is affected when there are changes in financial assets, the Group's policy to reassess the recognition of credit losses is: whenever the counterparty defaults in a financial agreement; or the information developed internally or obtained from external sources indicates that it is unlikely that the debtor will pay its creditors, in full, without considering held guarantees. The Group derecognises the financial asset when there is information indicating that the counterparty is in severe financial difficulties and there are no realistic prospects of recovery, for example, when the counterparty has been put into liquidation or has initiated bankruptcy proceedings or, in the case of receivables, when the amounts exceed two years past due, whichever occurs first.

Impaired financial assets may still be subject to collection execution activities under the recovery procedures of the Group, considering judicial collection when appropriate. Recoveries performed are recognised through profit for the period.

Derecognition of Financial Assets

A financial asset or part of it, is derecognised from the statement of financial position whenever it is sold, transferred, expires or the Group loses control on the contractual rights or on the cash flows of the instrument.

The Group derecognises a financial asset when there is information indicating that the counterparty is in severe financial difficulty and there is no realistic prospect of recovery, when the counterparty has been put into liquidation or has initiated bankruptcy proceedings or, in the case of receivables, when the amounts exceed two years past due, whichever is earlier.

If the Group does not transfer nor substantially retains all risks and advantages inherent to that property and continues to retain control of the transferred asset, the Group will recognise 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 transferred financial asset, the Group will continue

to recognise the financial asset and will also recognise a loan guaranteed as a collateral for the received income.

In the total derecognition of a financial asset measured at fair value through changes in profit or loss, the difference between the recorded value of the assets and the sum of the consideration received and to be received, is recognised through profit or loss in the Statement of comprehensive income. In case of financial assets measured at fair value with change in Other comprehensive income, the difference between the recorded value of the asset and the sum of the consideration received and to be received is recognised through profit or loss in the Statement of comprehensive income and the profit or loss that would have been recognised in the Other comprehensive income will be reclassified to accumulated income.

Refinancing of loans

When the contractual cash flows of a financial asset are renegotiated or otherwise modified, and the renegotiation or modification does not result in derecognition of that financial asset in accordance with IFRS 9 adopted in Colombia, the Group recalculates the gross recorded value of the financial asset and recognises a profit or loss due to modification in the profit or loss for the period. The gross recorded value of the financial asset 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 asset (or effective interest rate adjusted for credit quality for financial assets with credit deterioration purchased or originated) or, when applicable, the revised effective interest rate. Any cost or commission incurred adjusts the recorded value of the modified financial asset and is depreciated over the remaining term of the latter.

2.22.2 Financial liabilities

The Group recognises financial liabilities at their fair value at the outset. Transaction costs directly attributable to the acquisition or obtainment of the financial liability are deducted from its fair value if they are subsequently measured at amortized cost or are recognised through profit or loss if the liabilities are measured at fair value. Subsequently, financial liabilities are measured as follows:

- **Financial liabilities at fair value through profit or loss**, include liabilities held for trading, financial liabilities designated at fair value at the outset through profit or loss, and derivatives. Profit or loss on liabilities held for trading are recognised through profit or loss. At the outset, the Group allocated financial liabilities as at fair value through profit and loss.
- **Financial liabilities at amortized cost**, are measured using the effective interest rate. Profits and losses are recognised through profit and loss for the period.

Compound instruments

Financial instruments that contain both a liability and an equity component (compound financial instruments) are separately recognised and accounted for. Therefore, for the outset measurement the liability component is determined by the fair value of the future cash flows and the residual value is assigned to the equity component.

For subsequent measurement, the liability component is measured at amortized cost including the effect of depreciation costs, interests and dividends. The equity component retains the measurement of the initial recognition.

Financial guarantee contracts

The financial guarantee contracts issued by the Group are those contracts that require the making of a specific payment to reimburse the holder for the loss incurred when a specified debtor defaults their payment obligation, according to the conditions of a debt instrument. Financial guarantee contracts are initially recognised as a liability at fair value, adjusted by the transaction costs that are directly ascribable to the issuance of the guarantee. Subsequently, the liability is measured at: (i) the amount of the adjustment in value for the expected losses and (ii) the value initially recognised less, the recognised accumulated income.

Derecognition of financial liabilities

A financial liability or part of it is derecognised from the statement of financial position when the contractual obligation has been settled or has expired.

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 derecognition of the original liability and the recognition of a new liability and the difference in the respective recorded values is recognised through profit and loss.

In the event changes are not substantial the Group recalculates the gross recorded value of the financial liability and recognises a profit or loss from changes in the profit or loss. The gross recorded value of the financial liability is recalculated as the current 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 recorded value of the modified financial liability and is amortized over its remaining term.

2.22.3 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 the Group's companies are recognised through income received, net of direct issuance costs.

Repurchase of the Group's companies own equity instruments is recognised and directly deducted in equity, which indicates that no profit or loss is recognised from the purchase, sale, issuance, or cancellation of the Group's companies own equity instruments.

2.22.4 Derivative Financial Instruments

A financial derivative is an instrument which value varies in response to changes in a variable such as an interest rate, exchange rate, the price of a financial instrument, credit rating or index. This instrument does not require an initial investment or is inferior than other financial instruments with a similar response to changes in market conditions and is generally settled at a future date.

The Group uses derivative financial instruments, like Forward contracts, Future contracts, financial barbers (Swap contracts) and Option contracts to hedge several financial risks, mainly the interest rate, exchange rate and commodities price risks. Such derivative financial instruments are initially recognised 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 in the statement of financial position as financial assets when their fair value is positive, and as financial liabilities when their fair value is negative.

Commodity contracts that meet the definition of a derivative, but that are entered into in conformity with the expected purchase requirements of the Group, are recognised 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 recognised in the Statement of comprehensive income in the section Statement of income, except for those that are under hedge accounting.

Generally, the derivatives embedded in host 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 profit. However, derivatives embedded in contracts where the host is a financial asset in the scope of IFRS 9 are never split. Instead, the hybrid financial instrument as a whole is assessed for financial asset classification.

Hedge Accounting

At the beginning of a hedging relationship, the Group designates and formally documents the hedging relationship to which they want to apply 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 hedged item or transaction, the nature of the risk being hedged and how the Group shall assess the effectiveness of the changes in fair value of the hedging instrument when offsetting the exposure to changes in the fair value of the hedged item or in the cash flows, attributable to the risk hedged. Such hedges are expected to be highly efficient in achieving the offsetting of changes in the fair value or in the cash flows, and for this end they are permanently assessed throughout the information periods for which they were designated.

For hedging accounting purposes, hedges are classified and recorded as follows, once the strict criteria for their recording are complied with:

- **Fair value hedging**, when they hedge the exposure to fair value changes of assets or liabilities recognised or of non-recognised firm commitments.

A change in the fair value of a derivative that is a hedging instrument is recognised in profit or loss in the statement of comprehensive income as finance cost or income. A change in the fair value of the item hedged attributable to the risk hedged is recorded as part of the recorded value of the hedged item and is also recognised in profit or loss in the statement of comprehensive income as finance cost or income.

For the fair value hedging related to items recorded at amortized cost, the adjustments to the recorded value are amortized in profit or loss in the statement of comprehensive income throughout the remaining term until their maturity. Amortization of the effective interest rate may begin as soon as there is an adjustment to the recorded 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 ascribable to the risk being hedged. Amortization of recorded value adjustments is based upon the effective interest rate recalculated on the amortization starting date. If the hedged item is derecognised, the non-amortized fair value is immediately recognised through profit or loss.

When a non-recognised 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 recognised as an asset or liability with their corresponding profit or loss recognised in the statement of comprehensive income.

- **Cash flow hedging**, when they hedge the attributed cash flow variations exposure, either to a particular risk associated to a recognised asset or liability or to a highly probable foreseen transaction, or to the exchange rate risk in a non-recognised firm commitment.

The purpose of cash flow hedge accounting is to recognise in other comprehensive income the fair value of variations of the hedging instrument in order to apply them to the statement of comprehensive income when and at the rate that the hedged item affects them.

The effective portion of the profit or loss for the measurement of the hedging instrument is immediately recognised in Other comprehensive income, whereas the ineffective portion is immediately recognised in profit or loss in the Statement of comprehensive income period as finance expense.

Values recognised in the Other comprehensive income are reclassified into the profit or loss for the period when the hedged transaction affects profit or loss, as well as when the hedged financial income or financial expense is recognised, or when the foreseen transaction takes place. When the hedged item constitutes the cost of a non-financial asset or liability, the values recognised in the Other comprehensive income are reclassified at the initial recorded value of the no-financial asset or liability. If the foreseen transaction or the firm commitment is no longer expected, the accrued profit or loss previously recognised in Other comprehensive income is reclassified into the profit or loss for the period.

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 accumulated profit or loss previously recognised in other comprehensive income remains in the other comprehensive income until the foreseen operation or the firm commitment affects profit or loss.

- **Hedging of a net investment abroad**, when the instrument hedges the exposure to the variations in the translation of foreign businesses into the presentation currency of the Group associated to the exchange rate risk.

The objective of the foreign-currency net investment hedging is to hedge the foreign exchange rate risks that a Principal or Intermediate Parent Company having businesses abroad may have on the impact on 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.

Profit or loss of the hedging instrument related to the effective portion of the hedging are recognised through other comprehensive income, whereas any other profit or loss related to the ineffective portion is recognised through the statement of comprehensive income. For the disposition of the business abroad, the accrued value of the profits or losses recorded in the Other comprehensive income are reclassified through profit or loss for the period.

2.22.5 Off-setting of financial instruments

Financial assets and liabilities are subject to off-set in order to inform the net value in the Statement of financial position, only if (i) at the current time, there is a legally enforceable entitlement of off-set of recognised values; and (ii) there is the intention of settling them at their net value, or of simultaneously realizing the assets and cancelling the liabilities.

2.23 Inventories

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 estimated sale price in the normal course of business, less the estimated finalization costs and the estimated costs necessary to sale them.

Inventories include merchandise in stock that do not require transformation, such as electricity, gas and water meters 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 using the weighted average method and their cost includes the costs directly related to the acquisition and those incurred to give them their current conditions and location.

2.24 Impairment loss of non-financial assets

As of every presentation date, the Group assesses whether they have any indication that a tangible or intangible asset may be impaired. The Group estimates the recoverable value of the asset or Cash Generating Unit (CGU), at the moment it detects an indication of impairment, or annually (as November 30 and it is reviewed if there are relevant or significant events presented for the month of December that merit analysing and to be included in the calculation of impairment) for goodwill and intangible assets with indefinite lifespan and those that are still being developed.

The recoverable value of an asset is the greatest value between the fair value less the costs of sale, either of an asset or a Cash-Generating Unit (CGU), and its value in use is determined for an individual asset, unless the asset does not generate cash flows that are substantially independent of those of other assets or groups of assets, in which case the asset must be grouped to a CGU. When a reasonable and consistent basis for distribution is identified, common/corporate assets are also allocated to the

individual CGUs or distributed to the smallest group of CGU for which a reasonable and consistent basis for distribution can be identified. When the recorded value of an asset or a CGU exceeds its recoverable value, the asset is considered impaired and its value is reduced to its recoverable amount.

When calculating the value in use, the estimated cash flows, either for an asset or a CGU, are discounted at their current 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 assessment model is used for determining the reasonable value less the costs of sale.

Losses for impairment of continuing operations are recognised in profit or loss in those expense categories corresponding to the function of the impaired asset. Losses for impairment attributable to a CGU are assigned proportionately based on the recorded value of each asset to the non-current assets of the CGU after exhausting 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 CGUs considering: 1) The existence of revenue 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 its operations are managed and monitored. In order to assess impairment losses, the assets are grouped in the following CGU:

Subsidiary	CGU
Central Hidroeléctrica de Caldas S.A. E.S.P. (CHEC)	Generation
Electrificadora de Santander S.A. E.S.P. (ESSA)	
Empresas Públicas de Medellín E.S.P. (EPM)	
Hidroecológica del Teribe S.A. (HET)	
Central Hidroeléctrica de Caldas S.A. E.S.P. (CHEC)	Transmission
Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS)	
Electrificadora de Santander S.A. E.S.P. (ESSA)	
Empresas Públicas de Medellín E.S.P. (EPM)	
Transportista Eléctrica Centroamericana S.A. (TRELEC)	
Almacenaje y Manejo de Materiales Eléctricos S.A. (AMESA)	Distribution
Central Hidroeléctrica de Caldas S.A. E.S.P. (CHEC)	
Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS)	
Comercializadora Eléctrica de Guatemala S.A. (COMEGSA)	
Crediegsa S.A. (CREDIEGSA)	
Distribuidora de Electricidad del Sur (DELSUR)	

Subsidiary	CGU
Electrificadora de Santander S.A. E.S.P. (ESSA)	
Elektra Noreste S.A. (ENSA)	
Empresa de Energía del Quindío S.A. E.S.P. (EDEQ)	
Empresa Eléctrica de Guatemala S.A. (EEGSA)	
Empresas Públicas de Medellín E.S.P. (EPM)	
Enérgica S.A. (ENERGICA)	
ENSA Servicios S.A.	
Inmobiliaria y Desarrolladora Empresarial de América S.A. (IDEAMSA)	
Empresas Públicas de Medellín E.S.P. (EPM)	Natural Gas
EV Alianza Energética S.A.	
Aguas de Antofagasta S.A.	Water supply
Aguas de Malambo S.A. E.S.P.	
Aguas Regionales EPM S.A. E.S.P.	
Empresa de Aguas del Oriente Antioqueño S.A. E.S.P.	
Empresas Públicas de Medellín E.S.P. (EPM)	
Empresas Públicas de Rionegro S.A. E.S.P. (EP RIO)	
Aguas de Antofagasta S.A.	Wastewater management
Aguas de Malambo S.A. E.S.P.	
Aguas Nacionales EPM S.A. E.S.P.	
Aguas Regionales EPM S.A. E.S.P.	
Aquasol Morelia S.A. de C.V.	
Corporación de Personal Administrativo S.A. de C.V.	
Desarrollos Hidráulicos de Tampico S.A. de C.V.	

Subsidiary	CGU
Ecoagua de Torreón S.A. de C.V.	
Ecosistema de Ciudad Lerdo S.A. de C.V.	
Ecosistemas de Celaya S.A. de C.V.	
Ecosistemas de Colima S.A. de C.V.	
Ecosistemas de Tuxtla S.A. de C.V.	
Empresa de Aguas del Oriente Antioqueño S.A. E.S.P.	
Empresas Públicas de Medellín E.S.P. (EPM)	
Empresas Públicas de Rionegro S.A. E.S.P. (EP RIO)	
Empresas Varias de Medellín S.A. E.S.P.	
Proyectos de Ingeniería Corporativa S.A. de C.V.	
Tecnología Intercontinental S.A. de C.V. TICS A	
Gestión de Empresas Eléctricas S.A. (GES A)	Others
Innova Tecnología y Negocios S.A. de C.V.	
Maxseguros EPM Ltd.	
Promobiliaria S.A.	

Impairment for goodwill is determined by assessing the recoverable value of each CGU (or group of CGUs) to which the goodwill relates. Impairment related to goodwill cannot be reverted in future periods.

For assets in general, excluding the goodwill, on each presentation date an assessment is conducted about whether there is any indication that the impairment losses previously recognised no longer exist or have decreased. If such indication exists, the Group makes an estimate of the asset or CGU recoverable value. An impairment loss previously recognised can only be reverted if there was a change in the assumptions used for determining the recoverable value of an asset since the last time impairment was recognised. Reversal is limited in such a way that the recorded value of the asset neither exceeds its recoverable amount, nor exceeds the recorded value that would have been determined, net of depreciation, if no impairment loss had been recognised for the asset in the previous years. Such reversal is recognised through profit or loss in the Statement of comprehensive income.

2.25 Provisions

Provisions are recorded when the Group has a current, legal or implicit obligation, as a result of a past event. It is probable that the Group has to give off resources that incorporate economic benefit to settle the obligation, and a reliable estimate can be made for the value of the obligation. In cases in which the Group expects the provision to be reimbursed as a whole or in part, the reimbursement is recognised as a separate asset, but only in the cases when such reimbursement is practically certain, and the asset

value can be reliably measured. In the Group, each provision is only used for dealing with disbursement for which it was initially recognised.

Provisions are measured with the best estimate from management of expenditure necessary to settle the present obligation, at the end of the period being reported, considering the risks and the corresponding uncertainties. When a provision is measured using the estimated cash flow to settle the present obligation, its recorded value corresponds to the present value of said cash flow, using for the discount a rate calculated with reference to market yields for the bonds issued by the National Government. In Colombia, the yield of TES Bonds (public debt securities issued by the General Treasury of the Nation) at the end of the reporting period must be used.

Expense corresponding to any provision is presented in profit or loss in the Statement of comprehensive income net of all reimbursement. The increase in provision due to the time elapsed is recognised as finance expense.

Provisions for decommissioning

The Group recognises as part of the cost of a fixed asset in particular, to the extent that there is a legal or implicit obligation of decommissioning or restoring, the estimation of the future costs in which the Group expects to incur in to perform the decommissioning or restoring and its balancing entry is recognised as a provision for decommissioning and restoring costs. The decommissioning cost is depreciated over the estimated useful life of the fixed asset.

Decommissioning or restoring costs are recognised at the present value of the expected costs of cancelling out the obligation using estimated cash flows.

Cash flows are discounted at a pre-tax rate, which should be determined by reference; for subsidiaries in Colombia, for risk-free rates, the yield of TES bonds (public debt securities issued by the National Treasury) is used; for subsidiaries in Panama, market yields on bonds issued by the National Government are used and in El Salvador, yields on NOTASV27 (notes of the Republic of El Salvador maturing in 2027) are used.

Future estimated decommissioning or restoration costs are annually revised. Changes in the future estimated costs, on the estimated dates for expenditure, or on the discount rate applied are added or deducted from the asset cost, without exceeding the recorded value of the asset. Any surplus is immediately recognised through profit or loss. The change in the provision value associated to the time elapsed is recognised as financial expense in profit or loss in the Statement of comprehensive income.

Onerous Contracts

The Group recognises as provisions the current obligations that are derived from an onerous contract, as provisions and its offsetting is in the Statement of comprehensive income in profit or loss. 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 be only confirmed by the occurrence or non-occurrence of one or more uncertain future events that are not entirely under the Group's control or the current obligations, that arise from past events, but that it is not probable, but possible, that an outflow of resources including economic benefits shall be required to settle the obligation or the amount of the obligation cannot be measured with enough reliability, are not recognised in the Statement of financial position, they are rather disclosed as contingent liabilities. Contingent liabilities generated in a business combination are recognised 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 the Group control, are not recognised in the Statement of financial position, they are

instead disclosed as contingent assets when their occurrence is probable. Whenever the contingent fact is true the asset and the income associated are recognised in the profit or loss for the period. Contingent assets 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 greatest amount it would have been recognised and the amount initially recognised less the accrued depreciation recognised.

2.26 Employee Benefits

2.26.1 Post-Employment Benefits

Defined Contribution Plans

The contributions to the defined contribution plans are recognised as expenses in profit or loss in the Statement of comprehensive income 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 the 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 recognised 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 assessment 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 profits or losses, the yield of plan assets, excluding the values included in the net interest on the net defined benefits on the liabilities (assets), and the changes in the asset ceiling effect are recognised in other comprehensive income. The actuarial profits or losses include the effects of changes in the actuarial assumptions as well as experience adjustments.

The net interest on liabilities (assets) for net defined benefits includes the interest income for the plan assets, interest cost for the obligation for defined benefits and interests for the asset ceiling effect and is recognised in profit or loss.

The current service cost, the past service cost, any settlement or reduction of the plan are immediately recognised through profit or loss in the statement of comprehensive income when they arise.

2.26.2 Short-term benefits

The Group classifies as short-term employee benefits those obligations with the employees that it expects to settle in the twelve months period following the closing of the accounting period when the obligation was generated, or the service was 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.

The Group recognises 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, it will be capitalized to that asset.

Amounts already paid before corresponding, for instance, to advanced payments of salaries, advanced allowances, among others, if they exceed the corresponding liability, the Group will have to recognise

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 Group has entrusted the provision of certain services.

2.26.3 Long-term benefits

The Group classifies as long-term employee benefits those obligations that it expects to settle after the twelve months following the closing of the accounting year or the period where employees provide the related services, i.e. from the thirteenth month forward; they are different from the short-term benefits, post-employment benefits, and contract termination benefits.

The Group measures long-term benefits in the same way 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 Group 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 Group 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.

Benefits employees receive year after year throughout their working life should not be considered “long term” if at the accounting year closing each year the Group has fully delivered them.

2.26.4 Termination Benefits

The Group recognises as termination benefits, the considerations granted to the employees, payable as result of the decision of the company to terminate the labour contract to an employee before the normal retirement date or the decision of an employee to accept the voluntary resignation in exchange for such benefits.

2.27 Reinsurance activity reserves

Assets and liabilities under reinsurance contracts represent for the Group the best estimate of future collections and payments to be made for the risks assumed and ceded in reinsurance obligations; these are measured and recognised through technical reserves:

2.27.1 Unearned premium reserve (UPR)

Set aside for the fulfillment of future obligations derived from the assumed and ceded obligations from the current policies. They correspond to the portion of the premium that, at the date of calculation, has not yet been recognised as income or expense by the reinsurer. Its purpose is to adjust the result so that the profit is assigned to the period in which the premium was earned, regardless of when it was issued.

This reserve is calculated policy by policy, as the result of the total premium assumed between the number of days of the policy's validity, multiplied by the number of days corresponding to the time not running the risk at the date of calculation. The portion of the reserve corresponding to the reinsurer is also calculated, considering the ceded premium.

2.27.2 Certain loss reserve

This reserve is a provision of money that the Group must pay by 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 whether there are reports of internal or external settlers. The reserve includes the settlement expenses incurred to meet the claim, such as expenses due to attorney's fees for claims in judicial processes.

2.27.3 Incurred but not reported (IBNR) reserves

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 yet been notified or for which not enough information is available.

The following methodologies are used to calculate this reserve, the Bonesetter-Ferguson method and the Chain-ladder method. The Bornhuetter-Ferguson method is a standard actuarial method used to estimate final claims costs. The technique combines; (a) an initial benchmark or market estimate of final losses; and (b) an estimate of final losses based on actual claims experience to date. The former is based on a measure of exposure, such as premiums or number of policies. The latter is based on claims paid or incurred to date. The two estimates are combined using a formula that gives more weight to the estimate based on experience over time. The chain ladder method is a standard actuarial method that can be applied to premiums, claims paid, reserves for claims outstanding or claims incurred, or number of claims. The method involves analysis of historical claims development factors (the proportion of amounts accumulated in a development period to the previous development period). Based on this analysis, a development pattern is selected and then used to estimate future claims/premium development.

2.27.4 Liability adequacy test

Technical provisions recorded by the Group are regularly subject to proof of reasonableness to determine its sufficiency. If the result of the test shows that the provisions are insufficient, they are adjusted with a charge to profit or loss.

2.28 Service concession arrangements

The Group recognises the service concession arrangements pursuant to the interpretation requirements of the IFRIC 12 Service Concession Arrangements.

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.
- The grantor controls, through ownership, the right-of-use, or otherwise, any significant residual ownership in the infrastructure at the end of the term of the arrangement.

The Group does not recognise these infrastructures as property, plant and equipment, it recognises the consideration received in the contracts that meet the above conditions at its fair value, as an intangible asset to the extent that the Group receives an entitlement to make charges to users of the service, provided that these entitlements are conditioned to the service use level, or as a financial asset, to the extent that there is an unconditional contractual entitlement to receive cash or other financial asset, either directly from the assignor or from a third party. In cases where the 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 arrangements are recognised in the statement of financial position and subsequently are measured at amortized cost, using the effective interest rate. Assessment of impairment of these financial assets is made according to the value impairment policy of the financial assets.

Intangible assets of service concession arrangements are recognised in the Separate 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.

Revenue and costs related to the operating services are recognised according to the accounting policy of revenue and the services related to construction or improvement services according to the accounting policy of construction contracts. Contractual obligations assumed by the Group for maintenance of the infrastructure during its operation, or for its return to the assignor at the end of the concession arrangement in the conditions specified therein, to the extent that it does not assume an income-generating activity, is recognised following the provisions accounting policy.

2.29 Fair Value

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.

When estimating the fair value, the Group considers the characteristics of the asset or liability in the same way market participants will consider them when setting the value of the asset or liability on the measurement date. Fair value for measurement and disclosure purposes in financial statements is determined on that basis, except for transactions of stock-based payments, lease transactions, and measurements that have certain similarities with fair value but that are not fair value, such as the net realizable value or the value at use. The fair value of all financial assets and liabilities is determined at the financial statements' presentation dates, for recognition and disclosure in the notes to the financial statements.

Fair value is determined:

- Based on prices quoted in assets or liabilities markets identical to those the Group can access on the measurement date (level 1).
- Based on inputs applied on valuation methodologies commonly used by market participants, which are different from observable quoted prices for assets or liabilities, directly or indirectly (level 2).
- Based on internal valuation techniques of cash flow discounts or other valuation models, using variables estimated by the Group that are non-observable for the asset or liability, in the absence of variables observed in the market (level 3).

Note 44 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.

2.30 Operating segments

An operating segment is a component of the Group that develops business activities from which it can obtain revenue and incur in costs and expenses, on which there is financial information and the operating results of which are revised on a regular basis by the Group's highest chief operation decision maker, which is the Management Board, to decide on the resource allocation to the segments and the Management Committee to evaluate their performance.

The financial information of operating segments is prepared under the same accounting policies used in the elaboration of these consolidated financial statements.

2.31 Cash dividends and surpluses distributed to shareholders and owner of the Group

The Group recognises a liability to make the distributions to the owner of the Group in cash when distribution is authorized, and it is no longer at the Group's discretion. The corresponding amount is recognised directly through net equity.

2.32 Changes in accounting policies

During 2019, the Group implemented changes to IFRS (new standards, amendments or interpretations), issued by the International Accounting Standards Board (IASB) and adopted in Colombia that are compulsory for the annual period beginning on January 1, 2019.

IFRS 16 Leases. Issued in January 2016, this new standard introduces a comprehensive model for identifying leases and accounting treatments for lessors and lessees. It will replace the current standards for the accounting treatment of leases included in IAS 17 Leases and related interpretations, such as IFRIC 4 Determining whether an arrangement contains a lease, SIC-15 Operating leases—Incentives and SIC-27 Evaluating the substance of transactions taking the legal form of a lease.

The distinction between leases and service contracts is based on the customer's control 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 by a model in which an asset (right-of-use) and corresponding liability must be recognised for all leases (i.e. everything in the statement of financial position) except short-term leases and leases of low-value assets.

Assets (right-of-use) are initially measured at cost and are subsequently measured at cost (with certain exceptions) less accumulated depreciation and impairment losses, adjusted for any revaluation of the lease liability. Lease liability is initially measured at the present value of future lease payments. Subsequently, the lease liability is adjusted for interest and lease payments and the impact of lease modifications, among other things. In addition, the classification of cash flows is also affected because operating lease payments under IAS 17 are presented as operating cash flows; whereas under IFRS 16, lease payments will be divided into liability amortization and an interest portion that is presented as cash flow from financing and operating activities, respectively.

Unlike lessee accounting, IFRS 16 includes the same accounting requirements for a lessor as IAS 17, i.e. it continues to require a lessor to classify a lease as either an operating or a finance lease.

After completion of the inventory and lease valuation, the company adopted IFRS 16 retrospectively with cumulative effect from initial application, recognised on 1 January 2019, without using restatement of comparative information as required by paragraph C7 of this IFRS. Accordingly, the 2018 financial information has not been restated and continues to be reported in accordance with IAS 17.

The initial cumulative effect recognised as opening adjustments considering the indicative rates currently being used for the financing of the Group, applied to the lease liabilities is: Net assets from right-of-use: \$662,122, Total financial liabilities from lease: \$662,122, no net deferred taxes and accumulated income.

Additionally, \$127,487 was reclassified from property, plant and equipment to the assets for right-of-use corresponding to finance leases that had been recognised under IAS 17.

There is no effect on retained earnings, since the option taken for the valuation of the asset is to match the adjusted liability for prepaid or accrued (earned) leases recognised in the Statement of financial position immediately prior to the initial application. In the Group, no pre-paid or accrued lease payments were identified.

Short-term leases not exceeding 12 months or relating to low value underlying assets are not recognised as right-of-use assets, instead the Group uses the practical record and recognises such leases in the statement of comprehensive income.

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 the Group management used in the application of the accounting policies under IFRS adopted in Colombia, and that have significant effect on the values recognised in the consolidated financial statements.

Estimates are based upon historic experience and as a function of the best information available on the facts analysed by the cut-off date. These estimates are used for determining the value of the assets and liabilities in the separated financial statements, when it is not possible to obtain such value from other sources. The Group assesses its estimates on a regular basis. Actual results may differ from those estimates.

The significant estimates and judgments made by the Group are described below:

– **Assessment of impairment indicators for assets, goodwill and asset valuation for determining impairment.**

The condition of the assets is revised on each report presentation date, in order to determine whether there are indications that any of them has suffered an impairment loss. If there is impairment loss, the recoverable amount of the asset is affected, if the estimated recoverable amount is lower, its value is reduced to its recoverable value and impairment loss is immediately recognised in profit or loss for the period.

Assessment of impairment indicators is based on external and internal factors, and in turn on quantitative and qualitative factors. Assessment is based on financial results, on the legal, social and environmental settings, and on market conditions; significant changes in the scope or in the way in which the asset or CGU is used or expected to be used and evidence of obsolescence or physical deterioration of and asset or CGU, among others.

Determining whether goodwill has suffered impairment implies the calculation of value at use for the CGUs to which it has been assigned. The calculation of the value at use requires that the entity determines future cash flows that should arise from CGUs 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.

– **Assumptions used in the actuarial estimate of post-employment obligations with employees.**

The assumptions 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.

– **Lifespan and residual values of property, plant and equipment and intangibles.**

In the assumptions used for determining the lifespans, 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. Characteristics 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 credit risk.**

The Group discloses the fair value corresponding to each class of financial instrument in such a way it allows comparing it with the recorded values. Macro-economic projections calculated within every

company of the Group 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.

- Derivatives are estimated at fair value.
- Receivables are estimated at the market rate in force and effect for similar credits. Receivables from employees are valued as to mass debtors, except for housing loans.
- For equity investments, the methodology is cash flow; it is estimated at the market price for those offered in the stock market.

– **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 area professionals, the type of contingent liability, the possible legislative changes, and the existence of high-court rulings that applies to the concrete case, the existence of similar cases within the Group, the study and analysis of the substance of the issue, the guarantees existing at the time of the events. The Group shall disclose and not recognise in the financial statements those obligations classified as possible; obligations classified as remote are not disclosed nor recognised.

– **Future expenditure for asset decommissioning and retirement obligations.**

In the assumptions used for determining future expenditure for asset decommissioning and retirement obligations, aspects such as the following were considered: estimate of future outlays in which the Group must incur for the execution of those activities associated to asset decommissioning on which legal or implicit obligations have been identified, the initial date of decommissioning or restoration, the estimated date of finalization and the discount rates.

– **Determination of existence of finance or operating leases based on risk transfer and benefits of the leased assets.**

The significant assumptions considered 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, i.e., assessment of 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; the 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 has been generated by the temporary differences that generate future fiscal consequences in the financial position of the Group. These differences are essentially represented in fiscal assets that exceed the assets under IFRS adopted in Colombia, and in fiscal liabilities, lower than the liabilities under IFRS adopted in Colombia, such as it is the case of the pension liability components, the amortized cost of bonds, finance lease, and other sundry provisions and contingency provisions.

The Group's deferred tax asset is recovered in the liquid income taxed on the current income tax generated in each company of the Group.

– **Determination of whether a pool of assets qualifies as a discontinued operation.**

Significant assumptions for a pool of assets to be classified as a discontinued operation include being a component of an entity that has been disposed, or classified as held for sale, and represents a line of business or a geographical area that is significant and can be considered separate from the rest and is part of a single coordinated plan for its sale.

The Group classifies a non-current asset (or a disposition pool) as held for sale when its carrying amount will be recovered principally through a sale transaction rather than through continuing use.

To apply the above classification, the asset (or disposition pool) must be available, in its current condition, for immediate sale, subject only to the usual and customary terms for the sale of such assets (or disposition pool), and its sale must be highly probable.

– **Determination of Control, Significant Influence or Joint Control over an Investee.**

Significant influence on VE Servicios de Eficiencia Energética S.A.S.

As of December 31, 2019, the Group, through its subsidiary EPM Latam S.A., holds 2.1% of the equity instruments of VE Servicios de Eficiencia Energética S.A.S. However, due to contractual agreements and representation on the Board of Directors of the entity with 2 of 5 members, the Group exercises significant influence over the financial and operating policy decisions of VE Servicios de Eficiencia Energética S.A.S. and, therefore, is included in the Group's consolidated financial statements as an investment in an associate measured by the equity method.

– **Assessment of portfolio impairment**

For calculating 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 will be applied based on the Scorecard developed considering the information of each company of the Group. The models are defined according to the information available and the characteristics of the population groups for each one. Even though the methodology applies to all accounts with balance, some exclusions must be considered, such as: derecognised accounts; 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 defaulted and will not be recovered.

To calculate the credit loss of trade and other receivables (except accounts receivable among economically related parties), the following formula is used:

$$PE = \text{Exposed balance} * PD * LGD$$

Where, the PD component (probability of default) is derived from the result of a statistical model that provides the probability that each account will default on the following twelve months. This individual probability is located within a range found in order to attenuate fluctuations in the value of the general provision from one month to the next and stabilize its behavior, resulting in a standard PD by rank.

The loss given the default (LGD) is defined as the economic deterioration that the entity would incur in the event of any of the situations of default. It is a percentage obtained from a table taken from the current regulations of the Superintendencia Financiera de Colombia (Superintendence of Finance of Colombia), Chapter II of External Circular 100 of 1995.

– **Revenue estimates**

The Group recognises revenue from the sale of goods and the rendering of services to the extent that the performance requirements for the Group are met, regardless of the date on which the corresponding invoice is issued, to carry out this estimate information from contracts or agreements with customers is taken and so the value to be recognised in revenue is established.

If the moment at which revenue should be recognised is uncertain, the Group determines to recognise revenue at the moment in which the performance obligation is satisfied, for those performance obligations satisfied over time it is common to use a method of the measured resource as executed costs compared to estimated costs.

For other concepts different from the supply of public home utilities, the Group estimates and recognises the value of revenue from sales of goods or rendering of services based on the terms or conditions of interest rate, period, etc., of each contract that causes 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 done using information that is regularly provided to the highest decision-making authority in the Group and the segmentation of said information is identified. Once these segments have been identified, the capacity to generate income and incur costs and expenses of the identified groups is analysed. Likewise, it is verified whether the maximum decision-making authority reviews the returns and allocates resources based on this segmentation. Finally, it is examined whether disaggregated financial information is available to support this segmentation. In addition to the above factors, the Group's approach and management are analysed, in order to consider current possible segments that may arise in the future, according to its strategy.

Note 4. Significant transactions and other relevant aspects during the period

Significant transactions and other relevant aspects that occurred during the period, different from those of the normal business of the Group, are related to the contingencies of the Ituango Hydroelectric Project (*proyecto Hidroeléctrico Ituango*), that took place on April 28, 2018 due to a geological event that blocked the diversion tunnel of the Cauca River with approximately 160 thousand cubic meters of rock and soil, which caused a non-programmed occluding and flooding of the dam. As a result, EPM has led its decisions prioritizing the protection of communities and the environment in the first place, and after that the infrastructure of the project. Therefore, on May 7, 2018, the decision was made to drain the dammed water through the powerhouse of the future electricity generation plant for rechanneling it to its traditional flow into the Cauca River and thus lower the water level of the dam.

On January 16 and February 5, 2019, the intake gates No. 2 and No. 1, respectively, were closed, thus cutting the waterflow through the powerhouse. From February 8, 2019, the recovery of the stream of the Cauca River began with the flow of water through the tailgate.

On March 1, 2019: Skava Consulting delivers the results of the root cause analysis indicating the most likely hypothesis that could have generated the Auxiliary Deviation Gallery plugging, which consequently caused the contingency of the Ituango hydroelectric project.

On March 7, 2019: At the powerhouse, work is concentrated on water drainage activities. In the dam the construction of the plastic concrete screen (bentonite screen) was concluded and the tailgate operates at its optimal, evacuating the waters of the Cauca river that arrive at the dam.

On May 29, 2019, closure of one of the two gates of the Auxiliary Deviation Gallery (GAD) was completed, a new milestone in the project's risk mitigation work. With the closure of the first gate, the left gate, the work of nearly three months was completed. After closure of the left GAD gate, the following work focused on the closure of the right gate to complete the full closure, milestone reached on December 18, 2019, when the second gate of the Auxiliary Deviation Gallery (GAD) was closed. The pre-positioning of the GAD, with its two gates duly closed, reduces risks for the communities downstream of the works and means the continuation of the project's recovery process. Subsequently, a 22-meter plug will be built downstream of the floodgate chamber in the axis of the dam.

On June 11, 2019, the insurance company Mapfre made a first payment of compensation for the protection of extra-contractual civil liability (RCE) for \$6,169 corresponding to the affectations caused to third parties. This indemnification is given in the terms and conditions of the RCE policy, clarifying that according to estimates they have made, indemnifications for the affectations to third parties may exceed \$15,000.

On July 19, 2019, the construction work on the dam was completed, allowing this structure to be brought to the height of 435 meters above sea level, i.e., the maximum established in the original designs. As a consequence, the other technical advances achieved in the Ituango hydroelectric project and the capacities installed by EPM in the communities to react to a possible eventuality, allowed that on July 26, 2019, the National System of Disaster Risk Management (SNGRD) modified the state of alert for the evacuation of the populations located downstream of the future power generation plant. Determining that no locality remained on red alert, which means permanent preventive evacuation.

On September 16, 2019, Mapfre Seguros Generales de Colombia S.A. indicated its decision to grant coverage under the all-risk construction and assembly policy for the contingency in the Ituango Hydroelectric Project. Said insurance company appointed a series of national and international experts (engineers, geologists and geotechnical specialists in dams and underground works, lawyers, among others) to review the technical information of the main work fronts of the project; including tunnels, caverns, dam and tailgate. They also reviewed the designs, plans, technical specifications, construction processes, construction logs, risk matrix, pre and post-contingency studies. In this way, they concluded that the cause of the contingency, which occurred on April 28, 2018, is framed in the terms and conditions of the policy, thus confirming the coverage.

The insurance policy issued by Mapfre in favor of EPM covers damages to the infrastructure, civil works, project equipment and loss of profit due to the delay in the start of operations. Subsequently, the insurance company will quantify the value of the loss and, following the limits and conditions established in the insurance policy, will reimburse EPM for the resources needed to enter the financial statements of the Ituango Hydroelectric Project.

The insurance policy establishes an insured limit of USD 2,556 million for coverage of material damage to infrastructure and equipment. It also has coverage for delay in starting operations (money not received for damages derived from the contingency) for US\$628 million, amounts that set the maximum responsibility of the insurance company. The amount to be recognised by the insurer and its corresponding payment schedule will be the result of a rigorous analysis of damage quantification, whose results will be linked to the policy conditions such as deductibles, limits, additional coverage, among others.

September 27, 2019: By this date, a detailed exploration of 80% of the machine cavern, transformers, beacons, tunnels and adjacent galleries has been carried out. Damage from civil works was found in about 30% of the areas that could be directly inspected. By June 30, 2020 it is expected to have explored 100% of the cave complex and the dimensioning of the damages in order to define and start the activities of total repair of the cave complex.

On November 8, 2019, the urban planning work was completed and the road over the top of the project's dam was handed over to the community of the municipality of Ituango, so that its inhabitants can have continuous mobility to and from their town.

On December 4, 2019, the insurance company Mapfre made a first payment for material damage in civil works, for \$525,438 (USD 150 million).

On December 18, 2019, EPM performed the closing maneuver of the right branch of the Auxiliary Deviation Gallery (GAD). This closure ensures the pre-plugging of the Auxiliary Deviation System (SAD) through the gates and allows reaching optimal conditions for the final plugging.

On March 3, 2020, the National Environmental Licensing Authority (ANLA) authorized EPM to continue works on the Ituango hydroelectric project, which will enable the company to carry out the work to dissipate in an optimal manner, through the turbines that will be housed in the powerhouse, the energy of the water contained in the dam. The decision of the ANLA is based on the provisions of Resolution 0820 (June 2018) of that entity, a preventive measure that does not involve the suspension of "...activities, works, engineering and civil works to be executed by the company to ensure the integrity of the project,

and prevent and mitigate risks associated with the contingency presented ...", so that it can preserve the life of communities downstream of the project as a priority.

EPM and the relevant control and surveillance bodies continue to assess the root causes of the above-mentioned events.

Regarding the contingency, the EPM Group has recognised the next items in its consolidated financial statements as of 31 December 2019:

- Cost and progress of construction of the Ituango hydroelectric project for \$9,961,227 (see note 5).
- Receivables from the insurance company Mapfre for \$456,914 for impairment of civil works and total loss of machinery and equipment covered by the all-risk and construction policy and \$8,831 for non-contractual civil liability (see note 12).
- Total provision of \$45,676, of which \$6,799 was recognised in 2019 (2018: \$38,877) for the attention of those affected in Puerto Valdivia, for compensation of emergent damage, lost profits and moral damage, due to the increase in the waters of the Cauca River as a consequence of the occluding of the project on April 28, 2018. During 2019, payments of \$9,741 (2018: \$62) were made for a balance in liabilities in the provision account of \$35,873 (2018: \$38,815). (see note 27.1.6).
- Total provision of \$48,375 of which \$5,459 was recognised in 2019 (2018: \$42,917) for the attention of persons who had to be evacuated as a result of the event. During 2019, payments for \$20,420 (2018: \$23,700) were made for a balance in liabilities in the provision account of \$4,256 (2018: \$19,217). (see note 27.1.6).
- Total provision of \$151,401 of which \$14,083 was recognised in 2019 (2018: \$137,318) as collateral for the reliability charge that covers the construction and commissioning of the Pescadero Ituango Hydroelectric Power Plant. At December 31, 2019, payments of \$151,401 (2018: \$-) were made. (see note 27.1.5).
- Total provision of \$69,897 of which \$38,509 was recognised in 2019 (2018: \$31,388) for environmental and social contingencies, established by the specific action plan for the recovery of the parties affected by the events of the occluding of the Cauca River diversion tunnel that the project had on April 28, 2018 and by the closure of floodgates that reduced the flow of the river downstream of the project. During 2019, payments of \$15,043 (2018: \$-) were made for a balance in liabilities in the provision account of \$54,854 (2018: \$31,388) (see note 27.1.1).
- Total provision of \$108,630 of which \$6,833 was recognised in 2019 (2018: \$101,797) between estimated expense and interest as a result of the valuation, from January to October 2021, for the default to the Intercolombia transporter for the months subsequent to the entry into operation of the connection infrastructure of the Ituango project. As of December 31, 2019, and 2018 no payments were made for this concept. (see note 27.1.5).
- Total provision of \$14,284 of which \$11,864 was recognised in 2019 (2018: \$2,420) for environmental sanctions filed by the National Environmental Licensing Authority (ANLA). During 2019, payments of \$2,420 (2018: \$-) were made for a balance in liabilities in the provision account of \$11,864 (2018: \$2,420). (see note 27.1.6).
- Additionally, other expenses of \$24,929 (December 2018: \$45,639) were recognised in the Statement of Comprehensive Income for the attention of the community affected by the contingency (see note 35).

Note 5. Property, plant and equipment, net

The breakdown of the recorded value for property, plant and equipment is as follows:

Property, plant and equipment	2019	2018
Cost	43,603,770	42,120,534
Accrued depreciation and impairment loss	(7,998,115)	(7,631,935)
Total	35,605,655	34,488,599

Figures stated in millions of Colombian pesos

The following is the breakdown of the recorded value for temporarily idle property, plant and equipment:

Temporarily idle property, plant and equipment	2019	2018
Networks, lines and cables	9,196	34,572
Plants, pipelines and tunnels	15,231	21,508
Land and buildings	2,377	1,489
Machinery and equipment	546	105
Other property, plant and equipment	314	33
Total temporarily idle property, plant and equipment	27,664	57,707

Figures stated in millions of Colombian pesos

The most significant variation is due to the commissioning of Dolores generation plant and the decommissioning of the Rio Abajo plant.

The Group possesses property, plant and equipment that have been removed from use and have not been classified yet as non-current assets held for sale, corresponding to the Rio Piedras power plant that was transferred from the generation business to the water supply business, which has to recover the mini power plant as a business strategy, the cucarachos los naranjos pumping station that is expected to be modernized, and the land of the Porce IV project that was not executed, and the land of the Espíritu Santo project that has not yet been commissioned; the recorded value of these assets is as follows: for 2019 the cost amounts to \$27,663 (2018 \$57,707).

The following is the movement of cost, depreciation and impairment of property, plant and equipment:

2019	Networks, lines and cables	Plants, pipelines and tunnels	Construction in progress ⁽¹⁾	Land and buildings	Machinery and equipment	Communication and computer equipment	Furniture, fixtures and office equipment	Other property, plant and equipment ⁽²⁾	Total
Initial balance	11,001,434	11,719,710	11,398,786	6,226,917	803,664	436,703	131,663	401,657	42,120,535
Additions ³	41,666	42,666	3,440,154	14,722	20,567	45,121	2,160	46,972	3,654,027
Advanced payments (amortized) made to third parties	502	-	(17,417)	-	-	-	-	(1,804)	(18,720)
Transfers (-/+)	835,602	408,160	(1,636,803)	208,666	40,044	9,580	2,983	(14,853)	(146,621)
Dispositions (-)	(9,961)	(4,276)	(6,450)	(1,281)	(1,030)	(5,859)	(133)	(3,091)	(32,079)
Withdrawals (-)	(11,350)	(112,133)	(909,800)	(4,453)	(9,213)	(21,999)	(281)	(21,109)	(1,090,338)
Re-statement due to change of policies ⁽⁴⁾	346	-	2,229	(204,286)	51	46	18	68	(201,527)
Effect of changes in foreign exchange	36,702	41,534	5,143	3,606	(795)	94	60	(1,155)	85,188
Effect on loss of control of subsidiary	-	(613,662)	(34,205)	(45,762)	(327)	(34)	-	-	(693,990)
Other changes	49,110	66,607	(64,404)	(46,480)	(67,532)	(6,354)	1,685	(5,337)	(72,704)
Cost final balance	11,944,051	11,548,606	12,177,233	6,151,651	785,430	457,299	138,155	401,345	43,603,770
Accrued depreciation and impairment loss									
Initial balance of accrued depreciation and impairment loss	(3,216,290)	(2,859,219)	(1,039)	(824,201)	(295,444)	(252,556)	(53,790)	(129,397)	(7,631,935)
Depreciation for the period	(401,843)	(291,275)	-	(78,785)	(45,831)	(46,222)	(13,360)	(16,630)	(893,945)
Impairment for the period	-	(1,386)	-	(784)	(39)	(5)	(9)	(20)	(2,243)
Dispositions (-)	3,807	2,711	-	255	712	5,191	57	2,297	15,029
Withdrawals (-)	7,848	55,216	-	1,232	6,175	18,806	262	1,999	91,538
Transfers (-/+)	1	(0)	-	(11)	10	163	116	-	279
Re-statement due to change of policies ⁽⁴⁾	(34)	-	-	77,001	(15)	(7)	(13)	(28)	76,904
Effect of changes in foreign exchange	(14,616)	(22,836)	(48)	(1,290)	1,230	64	117	393	(36,986)
Effect on loss of control of subsidiary	-	359,575	1,086	25,399	167	29	-	17	386,274
Other changes	(11,615)	(16,635)	-	3,970	17,863	3,871	(596)	115	(3,029)
Final balance accrued depreciation and impairment loss	(3,632,741)	(2,773,850)	-	(797,216)	(315,173)	(270,668)	(67,215)	(141,253)	(7,998,115)
Total final net balance property, plant and equipment	8,311,311	8,774,756	12,177,233	5,354,434	470,257	186,631	70,940	260,092	35,605,655
Advanced payments made to third parties									
Initial balance	859	-	52,458	-	-	-	-	2,302	55,619
Movement (+)	477	-	38,809	-	-	-	-	7,014	46,301
Movement (-)	25	-	(56,227)	-	-	-	-	(8,819)	(65,020)
Difference in foreign exchange rate translation adjustment	76	-	(119)	-	-	-	-	-	(43)
Final balance	1,437	-	34,922	-	-	-	-	498	36,857

Figures stated in millions of Colombian pesos

2018	Networks, lines and cables	Plants, pipelines and tunnels	Construction in progress ⁽¹⁾	Land and buildings	Machinery and equipment	Communication and computer equipment	Furniture, fixtures and office equipment	Other property, plant and equipment ⁽²⁾	Total
Initial balance	9,750,271	9,910,586	10,824,257	6,083,884	728,530	385,321	130,617	375,900	38,189,366
Additions ³	33,100	35,300	3,938,568	19,680	19,834	47,031	2,260	30,360	4,126,133
Advanced payments (amortized) made to third parties	318	-	19,093	-	-	(86)	-	1,106	20,431
Transfers (-/+)	988,873	1,757,066	(3,060,750)	38,290	42,242	16,843	18,971	(8,937)	(207,402)
Dispositions (-)	(21,331)	(40,108)	(81,212)	(3,789)	(16,720)	(28,161)	(2,031)	(5,278)	(198,630)
Effect of changes in foreign exchange	180,742	144,889	25,885	35,965	38,040	6,205	1,395	3,383	436,504
Effect on loss of control of subsidiary	-	-	(27,129)	-	8	(11)	-	-	(27,132)
Other changes	69,462	(88,023)	(239,925)	52,888	(8,270)	9,561	(19,550)	5,121	(218,736)
Cost final balance	11,001,435	11,719,710	11,398,787	6,226,918	803,664	436,703	131,662	401,655	42,120,534
Accrued depreciation and impairment loss									
Initial balance of accrued depreciation and impairment loss	(2,784,511)	(2,546,524)	(1,074)	(731,260)	(249,969)	(225,501)	(54,765)	(115,666)	(6,709,270)
Depreciation for the period	(370,797)	(261,731)	-	(80,647)	(44,727)	(46,113)	(10,775)	(14,397)	(829,187)
Dispositions (-)	5,402	21,861	-	127	2,462	26,620	1,886	4,468	62,826
Transfers (-/+)	-	6,122	-	(6,292)	168	6	19	4	27
Effect of changes in foreign exchange	(73,417)	(83,373)	(93)	(6,430)	(13,111)	(4,688)	(584)	(2,372)	(184,068)
Effect on loss of control of subsidiary	-	-	-	-	-	11	-	-	11
Other changes	7,032	4,427	128	302	9,733	(2,892)	10,431	(1,435)	27,726
Final balance accrued depreciation and impairment loss	(3,216,291)	(2,859,218)	(1,039)	(824,200)	(295,444)	(252,557)	(53,788)	(129,398)	(7,631,935)
Total final net balance property, plant and equipment	7,785,144	8,860,492	11,397,748	5,402,718	508,220	184,146	77,874	272,257	34,488,599
Advanced payments made to third parties									
Initial balance	518	-	33,305	-	-	86	-	1,196	35,105
Movement (+)	318	96	75,280	-	-	-	-	1,524	77,219
Movement (-)	-	(96)	(56,187)	-	-	(86)	-	(418)	(56,787)
Difference in foreign exchange rate translation adjustment	23	-	60	-	-	-	-	-	83
Final balance	859	-	52,458	-	-	-	-	2,302	55,619

Figures stated in millions of Colombian pesos

⁽¹⁾ Includes capitalization of borrowing costs for \$381,123 (2018: \$326,689), the weighted average effective rate used to determine the amount of borrowing costs was 8.28% (2018 7.85%) and 5.19% in USA dollars (2018: 5.73%). Additionally, it includes right-of-use assets associated with constructions in progress amounting to \$3,282.

⁽²⁾ Includes fleet equipment and vehicles, medical and scientific equipment, property, plant and equipment in assembly, property, plant and equipment in transit and replacement assets, dining room, kitchen, pantry and hotel equipment.

- ⁽³⁾ Includes purchases, capitalizable disbursements that meet recognition criteria, assets received from third parties and costs for decommissioning and removal of property, plant and equipment.
- ⁽⁴⁾ Corresponds to property, plant and equipment that as of January 1, 2019 under IFRS 16 were recognised as rights of use.

The following are the main projects under construction:

Project	2019	2018
Ituango ⁽¹⁾	9,961,227	9,368,040
Other projects	915,877	880,664
Construction, extension and maintenance of substations, networks, lines and cables of DECA subsidiaries	497,566	435,911
Substations, networks, lines and loss control ESSA	339,088	227,104
Substations, lines and network growth ENSA	229,828	181,109
Expansion of STN, STR, networks, lines and CENS loss control	93,083	103,773
Empresas públicas de Rionegro projects	42,717	23,017
Substations, networks, lines and loss control CHEC	34,960	67,163
Water and sewerage networks Regional waters EPM	21,640	26,709
Distribution networks and GIS implementation, Delsur	17,491	14,893
Expansion and repositioning of EDEQ plants, networks, lines and cables	9,234	14,079
EMVARIAS Projects - Vaso Altair (phase 3)	6,987	22,962
Hidrosur Projects	3,678	280
Projects Aguas de Malambo- Water and sewage networks	2,995	8,479
Aguas de Oriente Projects	858	273
Ticsa Group water treatment plants	2	5,003
Transmission Projects Chile	-	16,510
Los Cururos Wind Farm Projects	-	1,778
Total	12,177,233	11,397,748

Figures stated in millions of Colombian pesos

- ⁽¹⁾ As of 31 December 2019, the Ituango hydroelectric project presented a physical progress of 76.7% (31 December 2018: 88.2%), the physical progress presented as of the date of the period on which the separated financial statements are reported, corresponds to the new version of the recovery and commissioning program. As a result of the contingency that occurred on April 28, 2018, caused by a geological event that occluded the Cauca River diversion tunnel with approximately 160 thousand cubic meters of rock and soil, which generated an unscheduled damming, it was necessary to execute additional activities not contemplated in the schedule. Due to the above, a new schedule was made which includes recovery activities and longer terms. For this, the percentage of progress decreases both in what was programmed and what was executed. This new schedule is susceptible to changes and/or modifications, since the actual state of the underground works is not yet known, and it has not yet been possible to inspect it directly. It is estimated that the first power generation unit could enter into operation by the end of the last quarter of 2021. However, this commissioning date is very dynamic, due to changes in technical variables and the evolution and efficiency of the measures implemented to deal with the contingency.

As a consequence of the above, EPM has prioritized its decisions to protect firstly the communities and the environment and secondly the project infrastructure. Therefore, on May 7, 2018, the decision was made to evacuate the dammed water through the powerhouse of the future power generation plant so that it would be channeled back into the Cauca River, and thus return to its traditional flow and the water level of the dam would drop. On January 16 and February 5, 2019, the water intake gates #2 and #1, respectively, were closed, thus suspending the flow of water through the powerhouse, which allowed the inspection of the main cavern where the powerhouse is located, the transformer

areas and beacon 1. With this, the cleaning and water pumping activities began in order to determine the severity of the works, the condition of the powerhouse and the work that must be done for its recovery. Consequently, at the date of the financial statements, although it is true that a large part of the project's works have been explored, some directly and others indirectly, for example through drilling and geophysical tests, as with the southern area of the cave complex, it is not yet possible to have a precise estimate of the total and exact value of the damages associated with the civil works; However, equipment and civil works have been written off for a value of \$456,914; additionally, the project has been tested for impairment, considering the provisions of IAS 36 and no impairment has been evidenced.

Once the above activities are completed, adjusted estimates can be made regarding the time of the interventions, the recovery engineering and the works to be implemented to fully recover the project, using up to date information. With regard to compensation for the damage that occurred, on December 4, 2019, that Mapfre insurance company made a first payment for material damage in civil works, for \$525,438 (USD 150 million), which implied the cancellation of civil works for this amount.

According to the above, total of write-offs 31 December 2019 amounts to \$ 982,352, of which \$ 904,057 correspond to 2019.

On May 29, 2019, the closure of one of the two gates of the Auxiliary Deviation Gallery (GAD) was completed, in a new milestone in the project's risk mitigation work. With the closure of the first gate, on the left, the work of nearly three months was completed. After closure of the left GAD gate, the next work will focus on the closure of the right gate to complete the full closure. Subsequently, a 22-meter plug will be built downstream of the tailgate chamber in the axis of the dam.

In July 2019, dam construction was completed, which translates into risk reduction for downstream populations. During September, the dam wall was built on reinforced earth between units 2 and 3 and the material filling in 3A, in units 1 and 2 of the powerhouse cavern; also, heavy equipment was brought into the powerhouse to clean and remove materials from the assembly room to the south sector of the powerhouse, the rehabilitation of the access tunnel to the powerhouse was completed and the road between the north portal of the road tunnel and the road leading to Puerto Valdivia, up to km 13+610, began to be levelled.

On November 8, 2019, urban planning work was completed and the road over the top of the project's dam was handed over to the community of the municipality of Ituango, so that its inhabitants can have continuous mobility to and from their town.

On December 18, 2019, the second gate of the Auxiliary Deviation Gallery (GAD) was closed. The pre-positioning of the GAD, with its two gates duly closed, reduces risks for communities downstream of the works and means the continuation of the project's recovery process.

Additions to property, plant and equipment of \$3,654,027 are taken as effective items, less the movement of advances of \$18,720, capitalized interest of \$421,543, and environmental and decommissioning provisions of \$47,100.

At the closing of the period, all assets associated with electricity Generation, Distribution, Transmission, Natural Gas, Water Supply and Wastewater management Cash Generating Units, which have intangible assets with an indefinite useful life, were tested for impairment, resulting in impairment of certain components of the ESSA subsidiary in the amount of \$2,243.

As of December 31, 2019, there are restrictions on the realization of property, plant and equipment, associated with some equipment of the vehicle fleet for a net book value of \$2 (2018 \$2). These restrictions are given for theft and have been affected as a collateral for the fulfillment of obligations.

The most significant commitments for the acquisition of property, plant and equipment of the Group at the cut-off date amount to 2,487,972; (2018: \$3,667,414).

The following is the historical cost of the fully depreciated property, plant and equipment that continue in operation as at 31 December 2019 and 2018:

Group	2019	2018
Communication and computer equipment	57,438	51,411
Buildings	1,655	20,085
Plants, ducts and tunnels	17,103	12,602
Machinery and Equipment	13,662	12,312
Other properties, plant and equipment	8,991	9,572
Networks, lines and cables	10,738	5,713
Total	109,587	111,695

Figures stated in millions of Colombian pesos

Note 6. Investment property

The fair value of investment property is based on an appraisal made by experts with recognised professional capacity and recent experience in the category of real estate investments subject to assessment; this value has been determined by officials of the EPM Group, appraisal specialists and valuation companies as *Corporación Avalúos Lonja Inmobiliaria* and *Ingeniería y Avalúos S.A.S.* To determine the fair value of investment property, the comparative or market method is used, which consists of deducting the price by comparing transactions, supply and demand and valuations of similar or comparable properties, previous time adjustments, conformation and location; the residual method, which applies only to buildings and is based on the determination of the updated cost of the construction less the depreciation for age and state of conservation; and the rent method, which is used to determine the possible value of a good according to its capacity to generate income, taking into account the probable monthly rental fee that tenants would be willing to pay in the lease market. See Note 44. Fair value measurement on a recurring and non-recurring basis.

Investment property	2019	2018
Initial balance	91,382	126,740
Net income or loss due to adjustment of fair value ⁽¹⁾	51,517	3,873
Effect of changes in foreign exchange	115	889
Transfers ⁽²⁾ (-/+)	(2,660)	(40,120)
Final balance	140,354	91,382

Figures stated in millions of Colombian pesos

⁽¹⁾ See detail in Note 32. Other Income and Note 35. Other Expenses.

⁽²⁾ Includes transfers to inventories.

Lease income from investment property for the period amounted \$694 (2018: \$657). Direct expenses related to investment property was \$74 (2018: \$61).

As of 31 December 2019 and 2018, there were no contractual obligations to acquire, construct or develop investment property or for repair, maintenance or improvements to investment property.

As at 31 December 2019, there are no contractual restrictions on investment property.

Note 7. Goodwill and other intangible assets

The breakdown of the recorded value for intangible assets is as follows:

Intangibles	2019	2018
Cost		
Goodwill	3,102,023	3,325,834
Concessions and franchises	2,395,253	2,274,306
Rights	23,049	12,204
Licenses	140,714	142,853
Software	409,232	329,599
Easements	199,999	195,685
Disbursements Development Phases	34,070	40,076
Intangibles related to customers	420,771	462,876
Other intangibles	16,692	48,752
Impairment		
Crédito mercantil	(206,572)	(293,567)
Accrued amortization and impairment		
Concessions and franchises	(859,119)	(807,989)
Rights	(2,477)	(2,057)
Licenses	(76,791)	(80,243)
Software	(205,463)	(151,016)
Easements	(4,976)	(4,901)
Disbursements Development Phases	-	(6,675)
Intangibles related to customers	(117,227)	(101,978)
Other intangibles	(23,116)	(35,534)
Total	5,246,063	5,348,225

Figures stated in millions of Colombian pesos

The movement of cost, amortization and impairment of intangible assets is detailed below:

2019	Goodwill	Concessions and similar rights	Capitalized development disbursements	Software y aplicaciones informáticas	Licences	Rights	Other intangible assets ⁽¹⁾	Total
Initial balance cost	3,325,834	2,274,306	40,076	329,598	142,853	12,203	707,313	6,832,183
Additions(2)	-	263,482	9,991	19,159	11,094	12,106	838	316,670
Advance payments delivered to third parties	-	(602)	-	-	-	-	-	(602)
Transfers (-/+)	-	84,259	-	47,958	7,436	-	3,360	143,013
Dispositions (-)	-	(44,092)	-	-	(360)	(90)	-	(44,542)
Retreats	-	-	-	(1,469)	(2,067)	-	-	(3,536)
Effect of loss of control in subsidiary	(13,538)	-	(16,835)	-	(5,038)	-	(32,622)	(68,033)
Other changes	(80,248)	(5,639)	97	13,470	(13,303)	-	(204)	(85,827)
Effect in foreign exchange translation	(130,025)	(176,461)	741	516	99	(1,170)	(41,222)	(347,522)
Final balance cost	3,102,023	2,395,253	34,070	409,232	140,714	23,049	637,463	6,741,804
Initial balance accumulated depreciation and impairment	(293,567)	(807,989)	(6,674)	(151,016)	(80,243)	(2,056)	(142,412)	(1,483,957)
Depreciation for the period ⁽³⁾	-	(101,900)	1	(41,835)	(14,558)	(382)	(32,543)	(191,217)
Capitalized Depreciation	-	(1,770)	-	-	-	-	1,769	(1)
Provisions (-)	-	(3)	-	1	359	90	-	447
Transfers (-/+)	-	-	-	-	4	-	-	4
Retreats	-	-	-	1,332	1,547	-	-	2,879
Effect of loss of control in subsidiary	12,519	-	7,001	-	1,996	-	16,830	38,346
Effect in foreign exchange translation	(4,419)	52,924	(328)	(483)	255	(5)	10,767	58,711
Other changes	78,895	(381)	-	(13,462)	13,849	(124)	270	79,047
Final balance of accumulated depreciation and impairment	(206,572)	(859,119)	-	(205,463)	(76,791)	(2,477)	(145,319)	(1,495,741)
Final balance of net intangible assets	2,895,451	1,536,134	34,070	203,769	63,923	20,572	492,144	5,246,063

Advance payments delivered to third parties

Initial balance		856						856
Advances movement +		200						200
Advance movement -		(803)						(803)
Business combination								-
Effect in foreign exchange translation		(53)						(53)
Final Balance		200						200

Figures stated in millions of Colombian pesos

2018	Goodwill	Concessions and similar rights	Capitalized development disbursements	Software y aplicaciones informáticas	Licences	Rights	Other intangible assets ⁽¹⁾	Total
Initial balance cost	3,349,147	1,899,895	71,454	243,145	115,548	53,964	712,723	6,445,876
Additions(2)	-	25,762	15,100	27,936	13,624	-	7,478	89,900
Advance payments delivered to third parties	-	860	-	-	-	-	-	860
Transfers (-/+)	-	101,489	(47,794)	49,565	10,932	-	37,333	151,525
Dispositions (-)	-	(18,236)	-	(2,487)	(2,353)	(83)	(1,040)	(24,199)
Retreats	-	-	-	-	(7)	-	(356)	(363)
Effect of loss of control in subsidiary	(23,313)	(53,761)	1,316	8,569	4,831	342	(11,516)	(73,532)
Other changes	-	318,297	-	2,871	278	(42,019)	(37,309)	242,118
Final balance cost	3,325,834	2,274,306	40,076	329,599	142,853	12,204	707,313	6,832,185
Initial balance accumulated depreciation and impairment	(288,476)	(702,567)	(5,623)	(116,523)	(64,806)	(1,615)	(129,141)	(1,308,751)
Depreciation for the period(3)	-	(81,724)	(506)	(31,448)	(13,622)	(485)	(35,136)	(162,921)
Capitalized Depreciation	-	6,052	-	-	-	-	-	6,052
Provisions (-)	-	-	-	2,450	2,316	-	-	4,766
Transfers (-/+)	-	2,750	-	-	-	-	(2,753)	(3)
Retreats	-	-	-	-	-	-	356	356
Effect in foreign exchange translation	(5,091)	13,659	(551)	(3,537)	(3,282)	(56)	(1,544)	(402)
Other changes	-	(46,158)	5	(1,959)	(849)	99	25,805	(23,057)
Final balance of accumulated depreciation and impairment	(293,567)	(807,988)	(6,675)	(151,017)	(80,243)	(2,057)	(142,413)	(1,483,960)
Final balance of net intangible assets	3,032,267	1,466,318	33,401	178,582	62,610	10,147	564,900	5,348,225

Advance payments delivered to third parties

Initial balance								-
Advances movement +		860						860
Advance movement -								-
Business combination								-
Effect in foreign exchange translation		(4)						(4)
Final Balance		856						856

Figures stated in millions of Colombian pesos

- (1) Includes easements, intangible assets related to customers and other intangibles corresponding to premiums at gas service stations.
- (2) Includes purchases, capitalizable expenditure that meets the recognition criteria and concessions. In 2019, purchases associated with capitalized development expenditure were earmarked for IT projects: EAM Asset Management, Sentinel Project (Proyecto Centinela), Treasury Project (Proyecto Tesorería).
- (3) See note 33 Costs of services rendered and note 34 Administrative expenses.

At the end of the periods, impairment testing was performed on assets for those intangibles with an indefinite lifespan. The breakdown of recognised impairment in the statement of comprehensive income is in Note 8. Impairment of assets.

Lifespans of intangible assets are:

Concessions and similar rights	As contract effective term
Easements	Indefinite
Disbursements for capitalized development	Indefinite
Software and computer applications	Indefinite / finite 3 to 5 years
Licenses	Indefinite / finite 3 to 5 years
Rights	As contract effective term
Other intangible assets	Indefinite / finite 7 to 15 years

Depreciation of intangibles is recognised as costs and expenses through profit or loss in the Statement of comprehensive income, in the item Costs of services rendered and administrative expenses.

As of 31 December 2019 and 2018 no restrictions on the realization of intangible assets were identified and no contractual commitments were identified for the acquisition of said assets.

The recorded value at the cut-off date and the remaining amortization period for significant assets is:

Significant intangible assets	Lifespan	Remaining amortization period - years	2019	2018
Goodwill	Indefinite	-	2,895,451	3,032,267
Concession Chile	Defined	14	922,785	914,472
Easements lines corridor 53	Indefinite	-	63,041	63,040
Distribution Network Circuito Bello	Defined	9	52,227	25,089
Elektra Northeast S.A. - Sales and Distribution Management System	Defined	9	47,337	39,532
Deca-Intelligent Measurement System	Defined	5	15,511	-
Distribución Eléctrica del Sur - SAP Business Management System	Defined	8	12,818	14,976

Figures stated in millions of Colombian pesos

Depreciation of intangible assets is recognised as costs for \$155,773 (2018: \$137,180) and as expenses for \$35,444 (2018: \$25,740) in the statement of comprehensive income, section profit for the period, in the lines of Costs of Services Rendered (Note 33) and Administrative Expenses (Note 34).

The following intangible assets have an indefinite lifespan: goodwill and easements, the latter are agreed in perpetuity.

By definition, an easement is the real, perpetual or temporary right over another's property, under which it can be used, or exercise certain disposition rights, or prevent the owner from exercising some of their property rights. In the Group, easements are not treated individually, since they are constituted for public utility projects, where the general interest prevails over the individual, considering that the objective is to improve the quality of life of the community; the aforementioned projects do not have a definite temporality, that is why they are constituted in perpetuity supported in their use. However, there are some easements with a definite useful life, because they are tied to the lifespan of the main asset required by the easement.

As of December 2019, and 2018 the intangible assets with indefinite lifespans have a recorded value of \$3,090.474 and 3,218,138 respectively.

Intangible assets with indefinite lifespan	2019	2018
Goodwill		
Aguas de Antofagasta	1,464,940	1,611,530
Empresa eléctrica de Guatemala S.A.	966,326	955,695
Proyecto Central Generación Ituango	177,667	177,667
Elektra Noreste S.A.	119,447	119,041
Espíritu Santo	82,981	82,981
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
Tecnología Intercontinental S.A. de C.V.	-	1,263
Surtigás Necoclí	303	303
Central Hidroeléctrica de Caldas S.A. E.S.P	10	10
Subtotal goodwill ⁽¹⁾	2,895,451	3,032,267
Other intangible assets		
Easements	195,023	185,871
Subtotal other intangible assets	195,023	185,871
Total intangible assets with indefinite lifespan	3,090,474	3,218,138

Figures stated in millions of Colombian pesos

⁽¹⁾ The variation presented in easements is mainly due to the effect in foreign exchange translation in Goodwill of Aguas de Antofagasta.

Note 8. Impairment of assets

8.1 Impairment of investments in associates and joint ventures

At the date of presentation of the financial statements no impairment losses were recognised in the Statement of comprehensive income, related to investments in subsidiaries, associates and joint Ventures.

8.2 Impairment of cash generating units (CGU)

The recorded value of goodwill and intangible assets with indefinite lifespans associated with each CGU are broken down below:

Cash Generating Unit	Recorded value		Impairment (reversion)	
	2019	2018	2019	2018
Energy generation segment				
Goodwill	260,647	260,647	-	-
Easements	892	770	-	-
Land			104	-
Buildings			680	-
Plants, ducts and tunnels			1,386	-
Machinery and equipment			39	-
Furniture, fixtures and office equipment			9	-
Communication and computer equipment			5	-
Transport, traction and lifting equipment			9	-
Replacement assets			11	-
Rights-of-use Pulling and lifting transport equipment			11	-
Generation	261,539	261,417	2,254	-
Energy transmission segment				
Easements	127,094	127,058	-	-
Transmission	127,094	127,058	-	-
Energy distribution segment				
Goodwill	1,090,919	1,079,883	-	-
Easements	56,182	54,373	-	-
Distribution	1,147,101	1,134,256	-	-
Natural gas segment				
Goodwill	303	303	-	-
Easements	3,692	3,680	-	-
Natural gas	3,995	3,983	-	-
Water supply segment				
Goodwill	1,333,095	1,466,492	-	-
Easements	4,951	2,994	-	-
Water supply	1,338,046	1,469,486	-	-
Wastewater management segment				
Goodwill	131,845	146,300	-	-
Easements	1,362	1,052	-	-
Concessions and franchises			-	6,052
Wastewater management	133,207	147,352	-	6,052
Solid waste management segment				
Goodwill	78,642	78,642	-	-
Solid waste management	78,642	78,642	-	-
Total	3,010,982	3,143,552	2,254	6,052

Goodwill is allocated mainly to the segments or CGUs listed below:

Cash generating unit	2019	2018	Generated by
Generation EPM	260,647	260,647	Liquidation of the subsidiary EPM Ituango S.A. E.S.P. and Espíritu Santo whose assets were transferred to EPM
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	966,327	955,696	Business combination in the acquisition of the Deca II Group by EPM
Distribution ENSA	119,447	119,042	Business combination in the acquisition of the PDG Group by EPM
Natural gas EPM	303	303	Business combination with Surtidora de Gas del Caribe S.A. E.S.P. by EPM
Water supply Adasa	1,433,966	1,580,556	Business combination in the acquisition of Aguas de Antofagasta by Inversiones Hanover
Wastewater management Adasa	30,974	30,974	Business combination in the acquisition of Aguas de Antofagasta by Inversiones Hanover
Wastewater management Ticsa	-	1,262	Business combination in the acquisition of Grupo Ticsa by EPM Mexico
Solid waste management Emvarias	78,642	78,642	Business combination in the acquisition by EPM
Total	2,895,451	3,032,267	

The intangible Easements is mainly assigned to the segments or CGUs detailed below:

Cash Generating Unit	2019	2018
Generation EPM	444	444
Generation CHEC	177	58
Hydro-ecological Generation of the Teribe	271	269
Transmission EPM	127,059	127,023
Transmission ESSA	35	35
Distribution EPM	29,433	28,945
Distribution EDEQ	256	254
Distribution CHEC	7,022	6,080
Distribution CENS	5,337	5,130
Distribution ESSA	7,178	7,152
Distribution EEGSA	593	501
Distribution ENSA	6,364	6,311
Natural gas EPM	3,692	3,680
Water supply Adasa	238	261
Water supply EPM	4,713	2,733
Wastewater Management EPM	593	454
Wastewater Management Aguas nacionales	597	597
Wastewater Management Aguas de Malambo	172	-
Total	194,174	189,927

Impairment of assets and intangibles - CGU Generation ESSA

ESSA calculated the impairment of its assets on the basis of IAS 36, seeking to ensure that the value of the assets recognised as cut-off at 31 December 2019 reflects their recoverable value through use or sale.

Value in use: estimates of the future cash flows the company expects to obtain on the assets were made; considering the expectations on possible changes in value, in addition it was based on the most recent financial projections, the cash flow was calculated at 20 years with continuity value given the useful life of the assets. The discount rate used for the valuation reflects the capital structure of the company, which considers the return that the owner would require from this type of investment.

Based on this, the value of the assets' impairment as of 31 December 2018 amounts to \$2,254,009,110 and results from:

Value in use:	\$12,102,554,783	Colombian pesos
CGU Recorded Value:	\$14,356,563,893	Colombian pesos
Value of Impairment:	\$2,254,009,110	Colombian pesos

The key assumptions used by the Group in the determination of the value in use/fair value less selling costs are as follows:

Description	Key Assumption
Revenue	<p>The amount of energy sold would be given by the average generation and 75% would be marketed in the long-term in bilateral contracts and 25% in the stock exchange.</p> <p>It is estimated that energy prices will decrease in the long term due to the market's behavior, given the strong entry of non-conventional renewable energy projects - NCRE such as wind and solar farms.</p>

Description	Key Assumption
Costs and Expenses	Costs and expenses are estimated according to the requirements of the plants in operation.
Investment	The replacement of the small hydroelectric plant Palmas is considered.

The value in use and the recorded value of the CGU at the end of 2019 that have intangible assets with indefinite lifespans is detailed below:

Cash Generating Unit	Functional Currency	Value in Use	Recorded Value
Water supply EPM	Colombian Pesos	3,470,608	2,619,466
Sanitation EPM	Colombian Pesos	1,742,237	1,113,710
Generation EPM	Colombian Pesos	23,458,487	17,880,484
Transmission EPM	Colombian Pesos	1,029,410	847,163
Distribution EPM	Colombian Pesos	6,073,939	4,249,358
Natural gas EPM	Colombian Pesos	1,370,182	844,236
Transmission CENS	Colombian Pesos	13,679	5,105
Distribution CENS	Colombian Pesos	1,210,303	953,775
Generation CHEC	Colombian Pesos	337,124	300,750
Distribution CHEC	Colombian Pesos	745,115	590,213
Distribution EDEQ	Colombian Pesos	337,754	191,129
Generation ESSA	Colombian Pesos	12,103	14,357
Distribution ESSA	Colombian Pesos	1,846,518	1,369,316
Distribution EEGSA	Guatemalan Quetzals	5,988	4,532
Distribution ENSA	Dólares americanos	756	510
Wastewater management Ticsa	Mexican pesos	545	(119)
Solid waste management Emvarias	Colombian Pesos	301,619	187,544
Water supply Adasa	Chilean Pesos	847,143	649,674
Wastewater management Adasa	Chilean Pesos	83,783	62,025
Wastewater Management Aguas de Malambo	Colombian Pesos	23,207	15,474
Generation Hidrogeológica del Teribe	US Dollar	146	143

Note 9. Investment in subsidiaries

The breakdown of the subsidiaries of the Group at the date of the reporting period is the following:

Name of the Subsidiary		Location (country)	Main Activity	Percentage of participation and voting rights		Percentage of participation of the non-controlling interest		Date of establishment
				2019	2018	2019	2018	
Empresa de Energía del Quindío S.A. E.S.P. (EDEQ)		Colombia	Provides electrical energy utilities purchase, sale and distribution of electrical energy.	92.85%	92.85%	7.15%	7.15%	22/12/1988
Central Hidroeléctrica de Caldas S.A. E.S.P. (CHEC)		Colombia	Provides public energy utilities, operating electricity generating plants, transmission and sub-transmission lines and distribution networks, as well as the marketing, 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 electricity utilities and purchases, sells and distributes electricity.	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 utilities for electrical energy, purchase export, import, distribution and sale of electrical energy. Construction and operation of generating plants, transmission lines and sub-stations and distribution networks.	91.52%	91.52%	8.48%	8.48%	16/10/1952
Elektra Noreste S.A. (ENSA)		Panama	Purchases energy, transports, distributes to customers, transforms voltage, installs, operates and maintains public lighting, and is authorised to generate energy up to a limit of 15% of the maximum demand in the concession area.	51.16%	51.16%	48.84%	48.84%	19/01/1998
Hidroecológica del Teribe S.A. (HET)	(1)	Panama	Finances the construction of the Bonyic hydroelectric project required to satisfy the growth in energy demand in Panama.	99.68%	99.18%	0.32%	0.82%	11/11/1994
Empresa Eléctrica de Guatemala S.A. (EEGSA)		Guatemala	Provides electrical energy distribution services.	80.90%	80.90%	19.10%	19.10%	05/10/1939

Name of the Subsidiary		Location (country)	Main Activity	Percentage of participation and voting rights		Percentage of participation of the non-controlling interest		Date of establishment
				2019	2018	2019	2018	
Gestión de Empresas Eléctricas S.A. (GESA)		Guatemala	Provides advisory and consulting services to electricity distribution, generation and transportation companies.	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 electrical energy commercialization services.	80.52%	80.52%	19.48%	19.48%	05/11/1998
Transportista Eléctrica Centroamericana S.A. (TRELEC)		Guatemala	Provides electricity transmission services.	80.90%	80.90%	19.10%	19.10%	06/10/1999
Enérgica S.A. (ENERGICA)		Guatemala	Provides construction and maintenance services for projects and goods in the electrical sector.	78.19%	78.19%	21.81%	21.81%	31/08/1999
Crediegsa S.A. (CREDIEGSA)		Guatemala	Provides personnel hiring 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 that supplies energy to the south-central zone of El Salvador in Central America.	86.41%	86.41%	13.59%	13.59%	16/11/1995
Innova Tecnología y Negocios S.A. de C.V.		El Salvador	Provision of specialized services in electrical engineering and sale of electrical appliances to the users of electrical energy of the company Delsur.	86.41%	86.41%	13.59%	13.59%	19/10/2010
Parque Eólico Los Cururos SpA.	(2)	Chile	Generation of electricity through all types of fuels and renewable energies such as wind, photovoltaic and biomass, transmission, purchase, sale and marketing of electricity.	-	100.00%	-	-	26/08/2011

Name of the Subsidiary		Location (country)	Main Activity	Percentage of participation and voting rights		Percentage of participation of the non-controlling interest		Date of establishment
				2019	2018	2019	2018	
Aguas Nacionales EPM S.A. E.S.P.		Colombia	Provides public home utilities as water supply, sewerage and sanitation, solid waste treatment and use, complementary activities and engineering services for these public utilities.	99.99%	99.99%	0.01%	0.01%	29/11/2002
Aguas Regionales EPM S.A. E.S.P.		Colombia	Guarantee the provision of public home utilities of water, sewage and sanitation and to compensate for the lack of infrastructure for these services i partner municipalities.	69.76%	69.76%	30.24%	30.24%	18/01/2006
Empresa de Aguas del Oriente Antioqueño S.A. E.S.P.	(9)	Colombia	Provides public home utilities of water supply and sewerage, as well as other complementary activities typical of each of these public utilities.	56.02%	56.01%	43.98%	43.99%	22/11/1999
Aguas de Malambo S.A. E.S.P.	(3)	Colombia	Guarantee the provision of public home water, sewage and sanitation utilities in the jurisdiction of the Municipality of Malambo, Department of Atlántico.	98.52%	98.09%	1.48%	1.91%	20/11/2010
Ecosistemas de Colima S.A. de C.V.	(4)	Mexico	Dedicated to developing the executive project for the wastewater treatment plant, its construction, equipment and operation, conservation and maintenance of sludge stabilization in municipalities of the State of Colima.	100.00%	80.00%	-	20.00%	14/02/2006
Ecosistemas de Tuxtla S.A. de C.V.	(4)	Mexico	Dedicated to the construction, equipment, commissioning, operation and maintenance of a wastewater treatment system with the modality of total recoverable private investment. Develop drinking water and water treatment plant projects.	100.00%	80.00%	-	20.00%	17/11/2006
Ecosistema de Ciudad Lerdo S.A. de C.V.	(4)	Mexico	Subsidiary dedicated to the construction, equipment, commissioning, operation and maintenance for 20 years of a wastewater treatment system in the city of Lerdo Durango, with the total private recoverable investment modality.	100.00%	80.00%	-	20.00%	24/04/2007
Aquasol Morelia S.A. de C.V.	(4)	Mexico	Subsidiary dedicated to the construction of a wastewater treatment plant, as well as the equipment and operation of this plant located in the town of Atapaneo in the Municipality of Morelia Michoacán.	100.00%	80.00%	-	20.00%	13/11/2003

Name of the Subsidiary		Location (country)	Main Activity	Percentage of participation and voting rights		Percentage of participation of the non-controlling interest		Date of establishment
				2019	2018	2019	2018	
Ecosistemas de Celaya S.A. de C.V.	(4)	Mexico	Dedicated to the development of the executive project for the wastewater treatment plant, as well as the treatment, transportation and final disposal of solid waste and sludge in the plant in the city of Celaya, state of Guanajuato.	100.00%	80.00%	-	20.00%	05/12/2008
Desarrollos Hidráulicos de Tampico S.A. de C.V.	(4)	Mexico	Dedicated to the construction, equipment, expansion, improvement, conservation, maintenance and operation of water supply and sewerage services, collection, drainage and wastewater treatment works.	100.00%	80.00%	-	20.00%	25/08/1995
Ecoagua de Torreón S.A. de C.V.	(4)	Mexico	Dedicated to providing operational services for the treatment of wastewater from any source, whether municipal or domestic, as well as the activity related to wastewater treatment.	100.00%	80.00%	-	20.00%	25/10/1999
Proyectos de Ingeniería Corporativa S.A. de C.V.	(4)	Mexico	Provision of design services, engineering in general or construction, professional and technical services to operate, manage, direct and generally carry out all activities that are necessary for the development of activities of any commercial, industrial or service company, in its mode of natural or legal entity.	100.00%	80.00%	-	20.00%	01/08/2008
Corporación de Personal Administrativo S.A. de C.V.	(4)	Mexico	Provision of professional services tending to operate, manage, direct and in general perform all necessary activities for the development of any company of commercial, industrial or services type in its modality of natural or legal entity, as well as the management, selection, hiring and exchange of personnel that carries out functions within the facilities of applicant companies.	100.00%	80.00%	-	20.00%	01/08/2008

Name of the Subsidiary		Location (country)	Main Activity	Percentage of participation and voting rights		Percentage of participation of the non-controlling interest		Date of establishment
				2019	2018	2019	2018	
Aguas de Antofagasta S.A.		Chile	Construction, and operation of the public utilities of production and distribution of drinkable water and of collection and disposition of served waters through the operation of the sanitation concessions of the Empresa de Servicios Sanitarios de Antofagasta S.A. (now Econsa Chile S.A.), and the provision of other services related to such activities, all in the form and under the conditions established in Decrees with Force of Law numbers 382 and 70, both of 1998, of the Ministry of Public Works, and other relevant regulations. To this end, on 29 December 2003, Aguas de Antofagasta S.A. signed with Empresa de Servicios Sanitarios de Antofagasta S.A. (currently Empresa Concesionaria de Servicios Sanitarios S.A. - Econsa S.A.) the "Agreement for the transfer of the right to operate sanitary concessions" (Contrato de transferencia del derecho de explotación de concesiones sanitarias), for a total period of 30 years from the date of its signing.	100.00%	100.00%	-	-	28/11/2003
Empresas Varias de Medellín S.A. E.S.P.		Colombia	Subsidiary dedicated to the provision of solid waste management utility within the framework of integrated solid waste management.	99.93%	99.93%	0.07%	0.07%	11/01/1964
EPM Inversiones S.A.		Colombia	Dedicated to capital investment in national or foreign companies organized as public utilities companies.	99.99%	99.99%	0.01%	0.01%	25/08/2003
Maxseguros EPM Ltd.		Bermuda	Negotiation, contracting and management of reinsurance for policies covering assets.	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	Makes capital investments in companies engaged in the distribution and marketing of electrical energy 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 making investments in real estate.	80.90%	80.90%	19.10%	19.10%	15/06/2006

Name of the Subsidiary		Location (country)	Main Activity	Percentage of participation and voting rights		Percentage of participation of the non-controlling interest		Date of establishment
				2019	2018	2019	2018	
Promobiliaria S.A.	(5)	Panama	Purchasing, selling, building, modifying, managing, leasing and in general entering into any contract for the disposal, improvement, use and usufruct of real estate not required for the operation owned by the companies that make up the EPM Group.	100.00%	100.00%	-	-	08/09/2015
EPM Latam S.A.		Panama	Make capital investments in companies.	100.00%	100.00%	-	-	17/05/2007
EPM Capital México S.A. de C.V.	(6)	Mexico	Develop infrastructure projects related to energy, lighting, natural gas, telecommunications, sanitation, drinking water plants, wastewater treatment, buildings, as well as their operation, studies and services.	100.00%	100.00%	-	-	04/05/2012
EPM Chile S.A.		Chile	Develops energy, lighting, natural gas, telecommunications, sanitation, drinking water, sewage and wastewater treatment plants projects, as well as providing these services and participating in all types of public or private tenders and auctions.	100.00%	100.00%	-	-	22/02/2013
Inversiones y Proyectos Hidrosur SpA		Chile	Participate in all types of tenders, bids, auctions whether public and/or private in the purchase of shares in national or foreign companies. Make strategic alliances, joint ventures and sign business collaboration agreements to bid for tenders, obtain concessions and / or authorizations. To provide all types of advice and services directly or indirectly related to the activities it carries out and in which the company is involved.	100.00%	100.00%	-	-	16/12/2014
Tecnología Intercontinental S.A. de C.V. TICSÁ	(4)	Mexico	Dedicated to the study, development, promotion and execution of industrial projects, design, manufacture, assembly and installation of machinery, development of technology including commercial representation and trade in general.	100.00%	80.00%	-	20.00%	28/07/1980

Name of the Subsidiary		Location (country)	Main Activity	Percentage of participation and voting rights		Percentage of participation of the non-controlling interest		Date of establishment
				2019	2018	2019	2018	
Autonomous equity (Patrimonio Autónomo) Financiación Social		Colombia	Manage the resources and payments of the social financing program created to facilitate the purchase of household appliances, gas appliances and products related to information technology.	100.00%	100.00%	-	-	14/04/2008
EV Alianza Energética S.A.	(7)	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 technological solutions, production, transformation, purchase, sale and supply of energy, gas and related products such as biogas; consulting services, the performance of studies, reports and projects relating to the above operations and services, as well as those related to the environment and energy saving.	51.00%	51.00%	49.00%	49.00%	22/01/2016
EPM Transmisión Chile S.A.	(2)	Chile	Operation, development of electrical systems for the transport, transmission and transformation of electrical energy, either within the country or abroad, and the acquisition of the same. For such purposes, it may obtain, acquire or enjoy the respective concessions, permits and authorizations, as well as exercise the rights and powers conferred by the legislation in force on electricity companies. Likewise, the commercialization of the transmission capacity of lines and the transformation of the substations and equipment associated with them, so that the generating plants, both national and foreign, can transmit the electrical energy they produce and reach their consumption centers.	-	100.00%	-	-	02/02/2017

Name of the Subsidiary		Location (country)	Main Activity	Percentage of participation and voting rights		Percentage of participation of the non-controlling interest		Date of establishment
				2019	2018	2019	2018	
Empresas Públicas de Rionegro S.A.S. E.S.P. - EP RIO	(8)	Colombia	Provision of public home utilities, including water supply and sewerage, as well as complementary and related activities to them, specifically the management, operation, maintenance and investment of water supply and sewerage systems in the Municipality of Rionegro, the implementation of programs and projects on the environment and renewable and non-renewable natural resources, to promote sustainable development. In addition, the company will provide maintenance services for the public lighting network in the Municipality of Rionegro.	100.00%	100.00%	-	-	09/12/1996
ENSA Servicios S.A.		Panama	Provision of technical, commercial and any other complementary services to the provision of the electricity service, without limiting the other analogous, related and/or compatible services that constitute an added value to the activities described.	51.16%	51.16%	48.84%	48.84%	29/11/2017

- (1) On 20 December 2019, EPM capitalized Hidroecológica del Teribe S.A. (HET) for \$178,469 (USD\$ 53,717,349.84)
- (2) On 16 September 2019, the EPM Group, through its subsidiary EPM Chile S.A., entered into a share purchase agreement with AES Gener S.A. and its subsidiary Norgener Renovables SpA for the sale of 100% of the shares it holds in Parque Eólico Los Cururos SpA. and EPM Transmisión Chile S.A. Subsequently, on November 27, 2019, the transfer by way of sale of the shares held in these companies was formalized. (see note 9.3.1)
- (3) On 14 June 2019, EPM capitalized Aguas de Malambo S.A. E.S.P. for \$12,000.
- (4) On 15 July 2019, the EPM Group, through its subsidiary Tecnología Intercontinental S.A. de C.V. TICSA, reimburses and cancels the shares subscribed by non-controlling interests, retaining 100% ownership and voting rights.
- (5) On 16 December 2019, EPM Latam S.A. capitalized Promobiliaria S.A. for USD\$ 1,400,000.
- (6) On 2 September 2019, EPM capitalized EPM Capital Mexico S.A. de C.V. for \$74,661.
- (7) On 19 December 2018, the Shareholders' Meeting of EV Alianza Energética S.A. unanimously approved the dissolution of the Company. Consequently, during 2019 the procedures corresponding to this act were initiated and will be continued in 2020.
- (8) On 30 December 2019, in accordance with public deed No. 4641 of the Second Notary Office of Rionegro - Antioquia, registered at the Cámara de Comercio de Oriente Antioqueño Chamber of Commerce on 31 December 2019, the approval of the merger by absorption by which EPM absorbs Empresas Públicas de Rionegro S.A.S. E.S.P. - EP RIO was protocolized. Based on the merger commitment, it was established that, for accounting purposes, the final operation is perfected based on the figures shown in the accounts of the two companies, as of the last day of the month in which the respective deed is executed, i.e. 31 December 2019. Consequently, the operations of Empresas Públicas de Rionegro S.A.S. E.S.P. - EP RIO. (absorbed company) are carried out by EPM (absorbing company) from 1 January 2020.

(9) In July 2019 EPM capitalized Empresa de Aguas del Oriente Antioqueño S.A. E.S.P. \$1,211.

The financial information of the Group's subsidiaries that have significant non-controlling interests as of the date of the reporting period is as follows:

2019	Current Assets	Non-Current Assets	Current Liabilities	Non-Current Liabilities	Revenue	Profit or loss for the Continuing Operations	Other Comprehensive Income	Total Comprehensive Income	Cash Flows
Elektra Noreste S.A. (ENSA)	659,340	1,960,812	1,138,014	889,124	2,417,021	107,816	6,352	114,168	69,466
Empresa Eléctrica de Guatemala S.A. (EEGSA)	549,658	1,611,453	395,863	835,322	2,060,200	100,390	32,968	133,358	18,644
Electrificadora de Santander S.A. E.S.P. (ESSA)	321,713	1,558,855	335,156	850,594	1,195,556	148,540	24,105	172,645	133,587
Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS)	229,499	964,992	231,573	672,756	777,880	65,033	(4,330)	60,703	47,534
Distribuidora Eléctrica del Sur S.A. de C.V. (DELSUR)	172,535	385,611	236,994	178,658	1,040,346	44,112	(4,424)	39,688	23,028
Central Hidroeléctrica de Caldas S.A. E.S.P. (CHEC)	244,733	944,416	261,482	383,707	766,819	123,470	(1,045)	122,425	19,874
Comercializadora Eléctrica de Guatemala S.A. (COMEGSA)	95,011	1,262	25,132	1,122	329,092	12,695	539	13,234	3,479
Empresa de Energía del Quindío S.A. E.S.P. (EDEQ)	77,132	211,633	43,155	71,474	245,074	35,822	(525)	35,297	19,782
Transportista Eléctrica Centroamericana S.A. (TRELEC)	114,663	897,312	580,416	(24,302)	108,379	45,789	2,633	48,422	3,362
Aguas Regionales EPM S.A. E.S.P.	25,534	143,830	34,000	32,754	56,210	9,932	-	9,932	10,469
Other interests ⁽¹⁾	499,893	3,957,809	387,610	486,967	722,615	517,524	7,972	525,496	230,789

Figures stated in millions of Colombian pesos

2018	Current Assets	Non-Current Assets	Current Liabilities	Non-Current Liabilities	Revenue	Profit or loss for the Continuing Operations	Other Comprehensive Income	Total Comprehensive Income	Cash Flows
Elektra Noreste S.A. (ENSA)	689,117	1,882,980	953,049	1,066,721	2,022,376	96,603	42,148	138,751	19,468
Empresa Eléctrica de Guatemala S.A. (EEGSA)	490,858	1,475,679	453,823	598,840	1,668,797	136,965	35,396	172,361	23,165
Electrificadora de Santander S.A. E.S.P. (ESSA)	312,774	1,427,035	293,144	790,896	1,115,338	139,738	19,994	159,732	129,198
Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS)	173,048	909,308	231,845	621,052	688,659	42,141	(1,800)	40,341	21,866
Distribuidora Eléctrica del Sur S.A. de C.V. (DELSUR)	216,165	354,490	197,559	229,937	884,840	43,475	10,656	54,131	30,143
Central Hidroeléctrica de Caldas S.A. E.S.P. (CHEC)	190,884	864,688	151,124	339,943	681,783	118,901	111	119,012	14,059
Comercializadora Eléctrica de Guatemala S.A. (COMEGSA)	88,905	581	28,568	76	278,900	4,598	2,014	6,612	5,446
Empresa de Energía del Quindío S.A. E.S.P. (EDEQ)	66,422	193,750	51,399	39,098	233,114	33,665	1,203	34,868	22,472
Tecnología Intercontinental S.A. de C.V. (TICSA)	121,894	412,125	182,200	114,578	152,372	11,539	22,347	33,886	16,479
Transportista Eléctrica Centroamericana S.A. (TRELEC)	255,562	773,821	579,335	667	88,945	27,777	15,617	43,394	245
Aguas Regionales EPM S.A. E.S.P.	19,311	120,376	23,964	23,044	50,942	8,383	-	8,383	4,392
Other interests ⁽¹⁾	735,582	4,301,341	640,185	1,161,602	527,918	242,886	58,463	301,349	193,213

Figures stated in millions of Colombian pesos

⁽¹⁾ Corresponds to investments in subsidiaries where the non-controlling interest is not significant in terms of equity participation and/or the amount of financial figures of each entity, and includes the following subsidiaries: Hidroecológica del Teribe S.A., 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., 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., EV Alianza Energética S.A. and ENSA Servicios S.A.

Profit or loss for the period, the dividends paid, and the assets allocated to non-controlling interests at the date of the reporting period are as follows:

Non-controlling interests	2019			
	Equity	Profit or loss for the period	Other comprehensive income	Dividends paid
ELEKTRA NORESTE S.A.	289,364	52,704	(431)	10
Electrificadora de Santander S.A. E.S.P. (ESSA)	180,326	38,551	6,256	35,048
Empresa Electrica de Guatemala S.A. (EEGSA)	177,597	19,172	(1,435)	16,008
Central Hidroelectrica de Caldas S.A. E.S.P. (CHEC)	108,243	24,569	(208)	28,450
Transportista Electrica Centroamericana S.A. (TRELEC)	87,060	8,745	-	8,137
Centrales Electricas del Norte de Santander S.A. E.S.P.	24,609	5,515	(367)	-
Distribuidora de Electricidad del Sur S.A. de C.V. (DELSUR)	19,319	5,973	(164)	7,853
Aguas Regionales S.A. E.S.P.	31,029	3,003	-	-
Comercializadora Electrica de Guatemala S.A. (COMEGSA)	13,372	2,424	-	777
Empresa de Energia del Quindio S.A. E.S.P. (EDEQ)	12,442	2,560	(38)	2,188
Other non-controlled interests ⁽¹⁾	21,039	7,547	(4)	4,691

Figures stated in millions of Colombian pesos

Non-controlling interests	2018			
	Equity	Profit or loss for the period	Other comprehensive income	Dividends paid
Elektra Noreste S.A. (ENSA)	270,575	46,894	125	33,341
Electrificadora de Santander S.A. E.S.P. (ESSA)	170,192	36,266	5,189	22,455
Empresa Electrica de Guatemala S.A. (EEGSA)	174,531	26,157	374	24,502
Central Hidroelectrica de Caldas S.A. E.S.P. (CHEC)	112,332	23,660	22	16,844
Transportista Electrica Centroamericana S.A. (TRELEC)	85,823	5,305	-	1,490
Tecnologia Intercontinental S.A. de C.V. (TICSA)	32,304	(46)	861	-
Centrales Electricas del Norte de Santander S.A. E.S.P.	19,460	3,574	(153)	1,636
Distribuidora de Electricidad del Sur S.A. de C.V. (DELSUR)	19,432	5,885	(200)	4,435
Aguas Regionales S.A. E.S.P.	28,025	2,535	-	-
Comercializadora Electrica de Guatemala S.A. (COMEGSA)	11,620	878	-	1,685
Empresa de Energia del Quindio S.A. E.S.P. (EDEQ)	12,124	2,405	86	15,791
Other non-controlled interests ⁽¹⁾	17,289	5,730	2	4,210

Figures stated in millions of Colombian pesos

- ⁽¹⁾ Corresponds to investments in subsidiaries where the non-controlling interest is not significant and includes the following companies: Inmobiliaria y Desarrolladora Empresarial de América S.A., Enérgica S.A, Aguas de Malambo S.A. E.S.P., Empresa de Aguas del Oriente Antioqueño S.A. E.S.P., Hidroecológica del Teribe S.A., Crediegsa S.A., Aguas Nacionales EPM S.A. E.S.P., Empresas Varias de Medellín S.A. E.S.P. and E.V. Alianza Energética S.A.

9.1 Significant restrictions

As of 31 December 2019, and 2018, the Group does not have any significant restriction to access or use the assets, settle Group liabilities, nor do the non-controlling interests have protective rights that could restrict the Group's ability to access or use the assets and settle liabilities of the subsidiaries or restrict dividends and other capital distributions.

9.2 Consolidated structured entities

As of 31 December 2019 and 2018, the Group has as a consolidated structured entity the *Patrimonio Autónomo Financiación Social* Autonomous equity. The participation in this entity is 100%, the value of the total assets amounts to \$167,272 (2018: \$149,322), the total liabilities to \$17,998 (2018: \$12,583) and the net profit for the period to \$21,376 (2018: \$18,702).

The Group has no obligation to provide financial support to the entity.

9.3 Loss of Control of Subsidiaries

9.3.1 On 27 November 2019, the EPM Group, through its subsidiary EPM Chile S.A., disposed of its investments in:

- Parque Eólico Los Cururos SpA. which carries out electricity generation activities through all types of fuels and renewable energies such as wind, photovoltaic and biomass, transmission, purchase, sale and marketing of electricity and,
- EPM Transmisión Chile S.A., which carries out activities of operation, development of electrical systems for the transport, transmission and transformation of electrical energy, either within the country or abroad, and the acquisition of these. It also markets the transmission capacity of lines and the transformation capacity of substations and associated equipment so that generating plants, both domestic and foreign, can transmit the electricity they produce to their consumption centers.

The effect of the transaction on the profit or loss for the period is as follows:

Consideration value transferred	495,402
Value of net assets of the subsidiary	(474,313)
Cost of sales	(4,813)
Reclassification of component of other comprehensive income from conversion of financial statements	8,222
Realisation of capitalised interest	27,148
Loss on valuation of previously held investments	(3,401)
Profit on disposal of subsidiaries (see note 40)	48,245

Figures stated in millions of Colombian pesos

The net effect at the date of the transaction in the consolidated statement of cash flows represents a decrease corresponding to cash and cash equivalents held in subsidiaries of \$6,915.

9.3.2 On October 9, 2018, the subsidiaries TICSa and Proyectos de Ingeniería Corporativa S.A. de C.V. entered into a share purchase agreement, where they sold and transferred 95,941 shares and 1 share, respectively, they held in the company Ecosistema de Uruapan S.A. de C.V., to the companies Terrabrio S.A.P.I. de C.V. and Ecosistema de Sonora S.A.P.I. de C.V. The effect of the transaction on profit or loss for the period is as follows:

Exchange value	4,488
Value of net assets of the subsidiary	7,531
Loss on disposal of subsidiary (see note 38)	(3,043)

Figures stated in millions of Colombian pesos

The net effect as at the date of the transaction in the consolidated statement of cash flows represents a decrease corresponding to the cash and cash equivalents held in the subsidiary Ecosistema de Uruapan S.A. de C.V. for COP \$10.

Note 10. Investments in associates

The breakdown of Investment in associates of the Group as at the date of the reporting period is:

Name of the associate	Location (country)	Main Activity	Percentage of participation and voting rights		Date of establishment
			2019	2018	
Hidroeléctrica Ituango S.A. E.S.P.	Colombia	Promotion, design, construction, operation, maintenance and marketing of energy at national and international level of the Pescadero Hituango Hydroelectric Power Plant	46.45%	46.45%	8/06/1998
Hidroeléctrica del Río Aures S.A. E.S.P.	Colombia	Generation and commercialization of electrical energy through a hydroelectric plant, located in the jurisdiction of the municipalities of Abejorral and Sonsón. of the Department of Antioquia	32.99%	32.99%	14/05/1997
UNE EPM Telecomunicaciones S.A.	Colombia	Provision of telecommunications services information and communication technologies information services and complementary activities.	50.00%	50.00%	23/06/2006
Inversiones Telco S.A.S.	Colombia	Investing in companies whose corporate purpose is 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 Energética S.A.S. ⁽¹⁾	Colombia	To carry out all activities, works and services, either its own or those related to the installation, operation and production of energy of each of the energy efficiency projects developed by EV Alianza Energética S.A., such as the provision of energy and technological solutions, production, transformation, purchase, sale and supply of energy, natural gas and related products such as biogas; consulting services.	2.1%	49.00%	21/02/2017

- (1) At 31 December 2019, the Group continues to have significant influence on the financial policy and operating decisions of this company (see note 3).

The value of investments in associates at the date of the reporting period is as follows:

Associate	2019				2018			
	Value of investment				Value of investment			
	Cost	Equity method	Dividends	Total	Cost	Equity method	Dividends	Total
UNE EPM Telecomunicaciones S.A.	2,342,488	(682,523)	-	1,659,965	2,342,488	(692,453)	-	1,650,035
Inversiones Telco S.A.S.	55,224	17,238	-	72,462	55,224	15,578	-	70,802
Hidroeléctrica Ituango S.A. E.S.P.	34,313	(11,134)	-	23,179	34,313	(11,134)	-	23,179
Hidroeléctrica del Río Aures S.A. E.S.P.	2,478	294	-	2,772	2,478	(232)	-	2,246
VE Servicios de Eficiencia Energética S.A.S.	83	1	-	84	83	142	-	225
Total value of investment in associates	2,434,586	(676,124)	-	1,758,462	2,434,586	(688,099)	-	1,746,487

Figures stated in millions of Colombian pesos

The breakdown of the equity method recognised in profit or loss for the period and in other comprehensive income for the period is as follows:

Associate	2019			2018		
	Equity-accounted investees for the period		Total	Equity-accounted investees for the period		Total
	Resultado del periodo	Other comprehensive income		Resultado del periodo	Other comprehensive income	
UNE EPM Telecomunicaciones S.A.	7,186	(300)	6,886	(25,243)	(1,039)	(26,282)
Inversiones Telco S.A.S.	4,782	-	4,782	6,896	-	6,896
Hidroeléctrica Ituango S.A. E.S.P.	-	-	-	223	-	223
Hidroeléctrica del Río Aures S.A. E.S.P.	(179)	-	(179)	-	-	-
VE Servicios de Eficiencia Energética S.A.S.	4	2	6	107	(20)	87
Total	11,793	(298)	11,495	(18,017)	(1,059)	(19,076)

Figures stated in millions of Colombian pesos

The financial information of the Group's significant associates at the date of the reporting period is as follows. All associates are accounted for using the equity method in the consolidated financial statements:

2019	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Revenue	Profit or loss for the period Continuing operations	Other comprehensive income	Total comprehensive income	Dividends ⁽¹⁾
UNE EPM Telecomunicaciones S.A.	1,776,297	6,163,823	1,874,908	4,287,090	4,927,143	519	(147)	372	-
Inversiones Telco S.A.S.	163,965	125,474	88,519	55,996	428,756	9,420	-	9,420	3,103
Hidroeléctrica Ituango S.A. E.S.P.	5,209	111,606	924	65,987	-	-	-	-	-
VE Servicios de Eficiencia Energética S.A.S.	2,861	7,424	6,280	-	1,763	195	-	195	-
Hidroeléctrica del Río Aures S.A. E.S.P.	2,308	12,967	6,652	-	-	(276)	168	(108)	-

Figures stated in millions of Colombian pesos

⁽¹⁾ In 2019, dividends of \$38,483 were received from UNE EPM Telecomunicaciones S.A. declared in 2018.

2018	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Revenue	Profit or loss for the period Continuing operations	Other comprehensive income	Total comprehensive income	Dividends
UNE EPM Telecomunicaciones S.A.	1,539,706	5,560,423	1,459,007	3,868,853	4,810,880	(62,056)	(2,151)	(64,207)	38,483
Inversiones Telco S.A.S.	154,831	53,169	66,262	133	400,866	13,791	-	13,791	3,442
Hidroeléctrica Ituango S.A. E.S.P.	5,209	111,606	924	65,987	-	480	-	480	-
VE Servicios de Eficiencia Energética S.A.S.	928	39	507	-	1,378	201	-	201	-
Hidroeléctrica del Río Aures S.A. E.S.P.	454	4,978	37	-	-	(906)	-	(906)	-

Figures stated in millions of Colombian pesos

The financial information of these companies, the basis for applying the equity method, is prepared under IFRS and adjusted to the Group's accounting policies.

Significant restrictions

As at 31 December 2019 and 2018, the Group has no significant restrictions on investments in associates relating to the transfer of funds to the Group in the form of cash dividends, or repayment of loans or advances made by the Group, except in the case of UNE EPM Telecomunicaciones S.A. in which at least fifty percent (50%) of the net profit for the period must be distributed as a dividend after appropriation and/or legal, statutory and occasional reserves, provided that the level of consolidated financial debt does not exceed twice the EBITDA for the same period.

Note 11. Investment in joint ventures

The breakdown of joint ventures of the Group at the reporting date is as follows:

Name of the joint venture	Location (Country)	Main Activity	Percentage of participation and voting rights		Date of establishment
			2019	2018	
Parques del Río S.A.S. ⁽¹⁾	Colombia	Construction, operation, management and sustainment of the Parques del Río Medellín project, 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 Medellín, Intervial Colombia S.A.S., Empresa de Transporte Masivo del Valle de Aburrá Ltda. (Metro) and EPM. The strategic support of EPM's participation in this company is based on the following aspects:

- Apply EPM expertise to large-scale infrastructure developments.

- EPM is entitled to participate by the territorial ordinance plan.

The value of investments in joint Ventures at the reporting date was:

Joint venture	2019			2018		
	Value of investment			Value of investment		
	Cost	Equity method	Total	Cost	Equity method	Total
Parques del Río S.A.S.	99	(17)	82	99	(17)	82
Total	99	(17)	82	99	(17)	82

Figures stated in millions of Colombian pesos

The financial information of the Group's significant joint ventures at the date of the reporting period is as follows. All joint ventures are accounted for using the equity method in the consolidated financial statements:

2019	Current assets	Current liabilities	Profit or loss for the period	Total comprehensive income	Dividends received
			Continuing operations		
Parques del Río S.A.S.	254	6	-	-	-

Figures stated in millions of Colombian pesos

2018	Current assets	Current liabilities	Profit or loss for the period	Total comprehensive income	Dividends received
			Continuing operations		
Parques del Río S.A.S.	254	6	(32)	(32)	-

Figures stated in millions of Colombian pesos

As of December 31, 2019 and 2018, Parques del Río S.A.S. entity is in a pre-operational stage, does not require capitalization and in case it is required, it will have to be authorized by the Board of Directors. Consequently, because it is in a pre-operational stage, it does not have operating income.

The financial information of this company, which is the basis for applying the equity method, is prepared under IFRS and adjusted to the Group's accounting policies.

Significant restrictions

At 31 December 2019 and 2018, the Group has no significant restrictions on investments in joint ventures relating to the transfer of funds to the Group in the form of cash dividends, or repayment of loans or advances made by the Group.

Note 12. Trade and other receivables

The breakdown of trade and other receivables of the Group as of the dates of the periods being reported is as follows:

Trade and other receivables	2019	2018
Non-current		
Public utilities debtors	405,894	362,866
Impairment loss public utilities	(129,544)	(118,283)
Employee loans ⁽¹⁾	118,360	113,918
Impairment loss employee loans	(2)	(11)
Contracts for the management of public utilities	546,117	503,063
Other services	1,021	1,218
Other loans	90,813	83,679
Impairment other loans	(18,973)	(16,975)
Total non-current	1,013,686	929,475
Current		
Public utilities debtors	3,380,165	2,985,110
Impairment loss public utilities	(401,684)	(341,978)
Employee loans ⁽¹⁾	46,976	44,395
Impairment loss employee loans	(291)	(322)
Construction contracts	2,001	1,689
Dividends and participations receivable	-	38,533
Compensations ⁽²⁾	466,037	21,426
Other services	244,316	238,640
Other loans	531,091	494,702
Impairment other loans	(195,949)	(197,452)
Total current	4,072,662	3,284,743
Total	5,086,348	4,214,218

Figures stated in millions of Colombian pesos

⁽¹⁾ As part of the employee benefit plan, the company makes loans for home, car, motorcycle, tourism, health and education purchases. Receivables for employee loans are non-interest bearing or have a lower-than-market interest rate for similar loans. Fair value is the present value of all cash flows discounted using the market rate. The difference between the fair value of an employee receivable and the amount paid is recorded as a prepaid expense, which is amortized on a straight-line basis over the term of the credit, recognising a salary expense.

- ⁽²⁾ Includes receivables from Mapfre insurance company for \$456,914 in respect of civil works and total loss of machinery and equipment covered by the all-risk and construction policy and \$8,831 in respect of non-contractual civil liability.

The increase in the non-current portion of accounts receivable is mainly explained by higher balances in the utility portfolio of EPM, ESSA and CHEC and also by increased balances of contracts for the management of public services at HidroSur. In addition, concession contracts of Mexican subsidiaries, recognised as financial instruments.

Non-current receivables include portfolio balances that are expected to be recovered after the next twelve months. generally, corresponds to financing granted to users to facilitate access to public utilities.

The current portion of the Group's trade receivables presents a higher value mainly due to the increase in the balance of the public utilities of EPM, Chec and Cens and the increase in the receivables for compensation that the insurance company MAPFRE recognised to the Parent company on the occasion of the Ituango Project.

Receivables from utility debtors are non-interest bearing and the term for collection is generally 10 days after invoice is generated. Individual contracts with large customers or in the energy sector provide for terms agreed upon in particular negotiations. In the latter case the term is usually 30 days.

Impairment of portfolio

The Group measures the value correction for expected losses during the lifespan of the asset using the simplified approach, which consists in taking the present value of credit loss arising from all possible default events at any time during the lifetime of the operation.

This alternative is taken given that the volume of customers is very high and the measurement and control of the risk by stages can lead to errors and to an underassessment of impairment.

The expected loss model corresponds to a forecasting tool that projects the probability of portfolio default in the next twelve months.

Each obligation is assigned an individual probability of default calculated from a probability model that involves sociodemographic, product and behavioral variables.

At the cut-off date, the ageing analysis of receivables at the end of the reporting period that are impaired is:

	2019		2018	
	Gross recorded value	Lifetime expected credit loss value	Gross recorded value	Lifetime expected credit loss value
Public utilities debtors				
Not past due nor impaired	2,801,324	(128,856)	2,292,536	(121,164)
Less than 30 days	482,585	(22,265)	410,664	(17,614)
30-60 days	85,575	(10,631)	103,257	(7,959)
61-90 days	38,994	(7,417)	90,817	(5,669)
91-120 days	12,447	(5,765)	59,822	(5,366)
121-180 days	25,134	(12,015)	48,355	(11,195)
181-360 days	67,612	(51,225)	91,552	(44,540)
Greater than 360 days	272,388	(293,053)	250,972	(246,755)
Total public utilities debtors	3,786,059	(531,228)	3,347,975	(460,261)
Other debtors				
Not past due nor impaired	1,141,173	(96,378)	1,221,464	(15,622)
Less than 30 days	90,926	(6,782)	123,418	(54,197)
30-60 days	13,088	(1,983)	17,360	(4,873)
61-90 days	6,756	(1,564)	6,405	946
91-120 days	85,116	(64,395)	4,330	(1,594)
121-180 days	6,886	(3,020)	22,352	(16,549)
181-360 days	72,256	(14,302)	22,027	(12,331)
Greater than 360 days	630,529	(26,792)	123,908	(110,541)
Total other debtors	2,046,730	(215,215)	1,541,264	(214,761)
Total debtors	5,832,789	(746,443)	4,889,239	(675,022)

Figures stated in millions of Colombian pesos

The variation in the provision for receivables in the EPM Group amounts to \$71,422, mainly concentrated in an increase in the provision associated with the energy utility portfolio in the subsidiaries ENSA, EPM parent company, ESSA and CENS.

The reconciliation of the expected credit losses of the portfolio is as follows:

Asset lifetime Expected Credit Losse	2019	2018
Initial balance	(675,021)	(599,473)
Changes in impairment of receivables held at the beginning of the period	-	(54,457)
Financial Assets Not derecognised during the Period	20,281	69,576
New financial assets originated or purchased	(408,945)	(114,556)
Cancellations	362,458	99,521
Changes in models/risk parameters	43,992	32
Difference in change and other movements	(89,208)	(75,664)
Final balance	(746,443)	(675,021)

Figures stated in millions of Colombian pesos

Portfolio reconciliation is as follows:

Portfolio balance	2019	2018
Initial balance of financial assets	4,889,239	4,227,137
New financial assets originated or purchased	33,184,954	34,394,939
Financial assets dereconition	(31,991,406)	(31,859,679)
Derecognised financial assets	(20,281)	(52,747)
Changes due to changes that did not result in derecognition	32,187	3,165
Other changes	(261,904)	(1,823,577)
Final balance	5,832,789	4,889,238

Figures stated in millions of Colombian pesos

The Group derecognises, against the impairment of recognised value in a corrective account the values of impaired financial assets when:

- Recorded receivable do not present any certain rights, assets or obligations for the entity.
- Rights or obligations lack documents and suitable support to advance the relevant procedures for their collection or payment.
- It is not possible to collect the right or obligation, due to coercive or judicial jurisdiction.
- It is not possible to legally charge any natural or legal entity for the value of the portfolio.
- When the cost-benefit relationship has been evaluated and established, it is more expensive to advance the collection process than the value of the obligation.

Bodies responsible for derecognising

Within the framework of group governance, approval bodies have been defined for the derecognition of assets from the financial statements, in order to maintain control over the assets to be written-off.

Note 13. Other financial assets

The breakdown of other financial assets at the closing of the period is as follows:

Other financial assets	2019	2018
Non-current		
Derivatives designated as hedging instruments under hedge accounting		
Swap contracts	34,422	180,224
Total derivatives designated as hedging instruments under hedge accounting	34,422	180,224
Financial assets measured at fair value through profit or loss		
Fixed-income securities	2,406	1,855
Variable-income securities	59,005	64,784
Pledged investments	47,830	-
Trust rights	431,973	433,618
Total financial assets measured at fair value through profit or loss	541,214	500,257
Financial assets designated at fair value through other comprehensive income		
Equity instruments (1)	1,963,081	1,628,874
Total financial assets designated at fair value through other comprehensive income	1,963,081	1,628,874
Financial assets measured at amortized cost		
Fixed-income securities	1,619	3,013
Total financial assets measured at amortized cost	1,619	3,013
Finance leasing	1,231	-
Total other non-current financial assets	2,541,567	2,312,368
Current		
Derivatives designated as hedging instruments under hedge accounting		
Swap contracts	11,727	12,240
Total derivatives designated as hedging instruments under hedge accounting	11,727	12,240
Financial assets measured at fair value through profit or loss		
Fixed-income securities	811,865	1,176,831
Variable-income securities	-	28,824
Pledged investments	5,970	5,647
Trust rights		5,379
Total financial assets measured at fair value through profit or loss	817,835	1,216,681
Financial assets measured at amortized cost		
Fixed-income securities	34,261	3,240
Pledged investments	126	126
Total financial assets measured at amortized cost	34,387	3,366
Finance lease	4,049	2,018
Total other assets current	867,998	1,234,305
Total other assets	3,409,565	3,546,673

Figures stated in millions of Colombian pesos

Conventional purchases and sales of financial assets are accounted for by applying the trade date.

(1) Financial assets designated at fair value through other comprehensive income

The breakdown of equity investments designated at fair value through other comprehensive income is:

Equity investment	2019	2018
Interconexión Eléctrica S.A. E.S.P. ⁽¹⁾	1,915,398	1,574,226
Gasorient S.A. ⁽²⁾	-	35,099
Promioriente S.A. E.S.P.	39,566	11,459
Reforestadora Industrial de Antioquia S.A.	4,947	4,947
Electrificadora del Caribe S.A. E.S.P.	1,385	1,385
Gensa S.A. E.S.P.	594	608
Other ⁽³⁾	1,191	1,009
Total	1,963,081	1,628,874
Accumulated loss for the period ⁽⁴⁾	(47,620)	-
Dividends recognized during the period related to investments that remain recognized at the end of the period ⁽⁵⁾	57,262	71,601
Dividends recognized during the period	9,642	71,601

Figures stated in millions of Colombian pesos

- (1) As of 31 December 2019, the market price of Interconexión Eléctrica S.A. E.S.P. closed at \$19,600 Colombian pesos (2018: \$13,980 Colombian pesos) per share.
- (2) During the second half of 2019, 12,263,565 shares of Gasorient S.A. were sold for \$35,479.
- (3) Includes investments in: Gestión Energética S.A., Unidad de Transacciones S.A. de C.V., Terminal de Transporte de Bucaramanga S.A., Sin Escombros S.A.S., Duke Energy Guatemala y Cia. S.A., Organización Terpel S.A., Concentra Inteligencia en Energía S.A.S, Banco Davivienda S.A., Emgesa S.A. E.S.P., Hotel Turismo Juana Naranjo, Compañía de Alumbrado Eléctrico de San Salvador S.A., Fosfonorte S.A., Central de Abastos de Cúcuta, Acerías Paz del Río S.A., Cenfer S.A.
- (4) Corresponds to loss generated in July 2019 on the sale of 14,881,134 ISA shares, arising from the difference between the sale price and the valuation of the share on the day of the transaction, (\$15,700 pesos/share - \$18,900 pesos/share = \$-3,200 Colombian pesos/share).
- (5) In 2019 includes dividends declared by Interconexión Eléctrica S.A. E.S.P. for \$53,944.

Equity investments indicated in the table above are not held for trading purposes but are rather held for strategic medium- and long-term purposes. The Group Management believes that the classification for these strategic investments provides more reliable financial information, reflecting changes in their fair value immediately in the results of the period.

Note 14. Leases

14.1. Finance lease as a lessor

The most significant finance lease agreements are: the facilities for the offices of the Grupo Tecnología Intercontinental, S.A.P. de C.V. TICSÁ company. The lease period of the office is 7 years, with an option to renew the lease after that date. The lease payments are modified each year based on inflation. For certain leases, the Company has restrictions on entering into sublease agreements.

At the cut-off date, future minimum payments and net investment in finance leases are distributed as follows:

Finance lease	2019	
	Gross investment	Net investment
Year one	2,031	-
Year two	1,231	-
More than five years	2,018	2,018
Total leases	5,280	2,018
Present value of minimum lease payments receivable	5,280	2,018

Figures stated in millions of Colombian pesos

The Group, as the lessor, does not have any contracts that take the legal form of a lease and which do not in essence constitute a lease.

14.2. Asset-originating lease for right-of-use as a lessee

At the cut-off date, the recorded value of assets for right-of-use is as follows (excluding assets with right-of-use associated with construction in progress, which are included in note 5 Property, plant and equipment):

2019	Right-of-use land	Right-of-use buildings	Right-of-use land networks, lines and cables	Right-of-use land machinery and equipment	Right-of-use furniture and fixtures	Right-of-use communication and computer equipment	Right-of-use transport, traction and lifting equipment	TOTAL
Initial balance of cost	-	-	-	-	-	-	-	-
Additions	1,778	8,637	38	70	644	380	1,172	12,719
Re-expression by policy change	17,785	500,616	105,132	20,811	432	7,472	86,274	738,522
Withdrawals (-)	-	(1,064)	(805)	-	(16)	-	(57)	(1,942)
Dispositions	-	-	-	-	-	(4)	-	(4)
Transfers	-	17	-	-	-	-	-	17
Effect of loss of control in subsidiary	(6,802)	-	-	-	-	-	-	(6,802)
Effect in foreign exchange translation	307	323	223	-	3	23	25	904
Other changes	(896)	(4,262)	(1,081)	2,063	-	2,380	(7)	(1,803)
Final balance of cost	12,172	504,267	103,507	22,944	1,063	10,251	87,407	741,611
Accumulated amortization and impairment losses	-	-	-	-	-	-	-	-
Initial balance of accumulated amortization and impairment losses	-	-	-	-	-	-	-	-
Amortization for the period	(605)	(19,422)	(5,755)	(5,380)	(111)	(1,090)	(22,574)	(54,937)
Deterioration for the period	-	-	-	-	-	-	(11)	(11)
Re-expression by policy change	-	(77,013)	-	-	-	-	-	(77,013)
Withdrawals (-)	-	170	15	-	17	-	21	223
Effect in foreign exchange translation	1	(311)	5	-	(1)	-	(1)	(307)
Other changes	-	2,871	(2)	(1,164)	(117)	(1,734)	(8)	(154)
Ending balance cumulative amortization and impairment	(604)	(93,705)	(5,737)	(6,544)	(212)	(2,824)	(22,573)	(132,199)
Total ending balance assets per right of net use	11,568	410,562	97,770	16,400	851	7,427	64,834	609,412

Figures stated in millions of Colombian pesos

The most significant finance lease agreement is:

Contrato arrendamiento Edificio Empresas Públicas de Medellín (Empresas Públicas de Medellín Building lease contract) CT-085 of 12 February 2002, held between EPM (THE COMPANIES) and the MUNICIPALITY OF MEDELLIN (MUNICIPALITY), the MUNICIPALITY agrees to lease to THE COMPANIES, and the latter agree to receive on the same basis, the use and enjoyment of the real estate owned by them called "Edificio Empresas Públicas de Medellín", with all its constructions and improvements.

The term of the contract is 50 years from 21 December 2001, date on which the MUNICIPALITY OF MEDELLIN became the owner of the property.

Contract lease payments are adjusted each year by a percentage equal to the national Consumer Price Index certified by DANE for the immediately preceding year.

Lease liabilities are included in Other financial liabilities in the statement of financial position.

Interest on lease liability amounts to \$209,584.

Total cash outflows from leases during the period are \$168,066.

At the cut-off date, future minimum payments and the present value of the minimum lease liability payments are distributed as follows:

Finance lease	2019		2018	
	Minimum payments	Present value of minimum payments	Minimum payments	Present value of minimum payments
One year	77,713	72,654	18,077	17,287
More than one year and up to five years	305,746	243,814	72,049	55,667
More than five years	1,257,692	366,291	504,002	122,528
Total leases	1,641,151	682,760	594,128	195,482
Less - value of unearned interest	(958,391)	-	(398,646)	-
Present value of minimum lease payments	682,760	682,760	195,482	195,482

Figures stated in millions of Colombian pesos

14.3 Operating lease as lessee

The most significant operating lease agreements are for the electrical infrastructure for the installation of networks by telecommunications operators. The contingent payments of these leases are determined based on the updating of the producer price index (PPI) and consumer price index (CPI) variables as well as the updating of the lease payments. Leases agreements provide for an option to be renewed by mutual agreement between the parties and do not provide for a purchase option.

The value of non-cancellable operating lease payments is as follows:

Operating lease	2019	2018
Year one	85,401	66,315
Year two	93,893	40,327
Year three	16,447	-
Year four	5,696	-
Year five	4,873	-
More that five years	30,340	22,637
Total leases	236,650	129,279

Figures stated in millions of Colombian pesos

The Group, as a lessor, does not have contracts that take the legal form of a lease and that in essence do not constitute one.

14.4 Leases that do not generate assets by right-of-use as a lessee

The most significant operating lease agreements are in EPM for spaces for the installation and operation of antennas in weather stations, shift management system, user printing infrastructure, among others, with no restrictions. The contingent payments of these leases are determined based on the consumer price index (CPI) as well as the updating of the lease payments and these contracts can be renewed.

At the cut-off date, future commitments for short-time lease are \$8,233 (2018: \$36,627).

Lease payments recognised as expense for the period are \$25,893.

Note 15. Warranties

The Group has granted the following financial assets as collateral:

- Letters of credit, performance bonds and other securities for \$223,327 (2018: 267,767) granted by the subsidiary ENSA to guarantee: fulfillment of the obligations for the concession contract with the National Authority of Public Utilities of Panama (Autoridad Nacional de los Servicios Públicos de Panamá); for electricity purchase contracts to generating and transmission companies.
- Deposits to Fixed Term Certificate (CDT) which recorded value is \$ 133 (2018: \$ 133). The conditions for the use of the collateral are to cover contingencies for lawsuits against the Municipality of Bucaramanga by the subsidiary ESSA S.A. This collateral is constituted and granted to Seguros del Estado.
- Premium withheld for \$19,454 (2018: \$13,718) to the subsidiary Maxseguros by the ceding insurance company, complying with Colombian regulations.
- The Group has received as a collateral from the subsidiary Maxseguros the premium withheld to reinsurance companies for \$8,253 (2018: \$6,232).

The Group has not withheld collaterals as of 31 December 2019 and 2018, authorizing it to sell or pledge them without a default by the owner of the collateral.

Note 16. Other assets

The breakdown of other assets at the end of the periods being reported is as follows:

Description	2019	2018
Non-current		
Employee benefits(1)	53,387	51,947
Deferred loss from leaseback	21,608	22,283
Advance payments to suppliers(2)	18,962	20,558
Advance payments(3)	11,491	15,966
Goods received as dation in payment	1,466	1,466
Other advances or balances in favour of taxes and contributions	-	(28)
Total other non-current assets	106,914	112,192
Current		
Reinsurance activities(4)	209,229	232,865
Advance payments(3)	94,298	85,991
Value added tax	64,759	70,244
Advance payments to suppliers(2)	64,581	59,325
Other recoverables due to other taxes	2,928	3,851
Advance payment of industry and commerce tax	1,951	5
Withheld industry and Commerce Tax	438	831
Advance payment special contribution	282	-
Other advances or balances in favour of taxes and contributions	127	299
Total other current assets	438,593	453,411
Total other assets	545,507	565,603

Figures stated in millions of Colombian pesos

- (1) Corresponds to Loans to employees at below-market rates for \$53,387 (2018: \$51,947).
- (2) The non-current portion corresponds to resources given for management for \$18,996 (2018: \$19,869) and Other advance payments for -\$34 (2018: \$689).

The current portion includes Other advance payments for \$59,157 (2018: \$48,488); resources given for management for \$4,537 (2018: \$10,042); advance payments on covenants and agreements and advance payments for travel expenses for \$887 (2018: \$796).

- (3) The non-current portion includes insurance for \$3,284 (2018: \$6,141) mainly corresponding to the all-risk policies of the Ituango Hydroelectric Project, effective until March 2021, which are being amortized; premium on legal stability contracts for \$7,357 (2018: \$8,249); maintenance for \$763

(2018: \$511); leases for \$87 (2018: \$349) and other goods and services paid in advance in (2018 for \$716).

The current portion includes insurance for \$74,906 (2018: \$66,874), comprised primarily of the all-risk policies for the Ituango Hydroelectric Project; printed matter, publications, fees, goods and services paid in advance for \$14,264 (2018: \$11,916); leases and maintenance for \$5,128 (2018: \$7,201).

- (4) Corresponds to the technical reserves to be covered by reinsurers, which detail is as follows:

Description	2019	2018
Loss reserves receivable	91,231	129,491
Non-reported loss reserves recoverable	62,918	49,803
Deferred permium - Reinsurer part	35,626	39,853
Retained funds	19,454	13,718
Total	209,229	232,865

Figures stated in millions of Colombian pesos

Note 17. Inventories

Inventories at the end of the period were represented as follows:

Inventories	2019	2018
Materials for the rendering of services ⁽¹⁾	334,283	355,865
Goods in stock ⁽²⁾	54,374	53,051
Goods in transit	2,587	749
Total inventories	391,244	409,665

Figures stated in millions of Colombian pesos

- (1) Includes materials for the rendering of services held by third parties, which are those delivered to contractors that perform activities related to the rendering of services.

- (2) Includes goods in stock that do not require transformation, such as electricity, gas and water meters, and supply goods, as well as those held by third parties.

Inventories were recognised for \$254,822 (2018: \$234,436) as the cost for the rendering of service or cost of goods sold. The inventory decline recognised as an expense during the period amounted to \$36 (2018: \$308).

As at 31 December 2019, the Group did not have any inventories committed to liability collateral.

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	2019	2018
Cash on hand and in banks	884,703	964,553
Other cash equivalents ⁽¹⁾	825,863	633,829
Total cash and cash equivalents reported in the statement of financial position	1,710,566	1,598,382
Cash and cash equivalents reported in the statement of cash flows	1,710,566	1,598,382
Restricted cash ⁽²⁾	196,072	173,375

Figures stated in millions of Colombian pesos

⁽¹⁾ Includes funds in transit \$- (2018: \$15,374), restricted funds \$196,072 (2018: \$173,375) and cash equivalents \$629,791 (2018: \$445,085).

⁽²⁾ Of this \$46,415 (2018: \$22,344) corresponds to non-current restricted cash.

Cash investments mature within three months from their date of acquisition and bear market interest rates for this type of investment.

the Group has restrictions on cash and cash equivalents as detailed below: As of 31 December 2019 the fair value of restricted cash equivalents is \$196,072 (2018: \$173,375).

Fund or agreement EPM	Destination	2019	2018
Sinpro Housing Fund	Contribute to the acquisition of housing and house improvement of the workers who are beneficiaries of the conventional agreement signed between EPM and the unions.	21,319	17,936
Sintraemdes Housing Fund	Contribute to the acquisition of housing and house improvement of the workers who are beneficiaries of the conventional agreement signed between EPM and the unions.	19,199	17,002
Agreement signed between the Metropolitan Area of Valle de Aburra and Empresas Públicas de Medellín E.S.P., Execution Act No. 4 of Framework Agreement No. CT 2015-000783 of 2015	Support the construction of the southern interceptor of the Aburra River - Medellín	10,760	8,006
Ministry of Mines and Energy - Special Fund <i>Cuota Fomento</i>	Co-financing agreement for the construction, distribution infrastructure and connection to lower income users in the municipalities of Amagá, Santa fé de Antioquia, Sopetrán, San Jerónimo and Ciudad Bolívar. Compressed Natural Gas and connection to users in Don Matías, Entreríos, San Pedro, Santa Rosa and Yarumal. Agreement No 106: construction of infrastructure to connect users in Valle de Aburrá, La Ceja, La Unión and El Retiro. Agreement No. 179: includes the municipality of Sonsón.	5,635	5,443
International energy transactions	Collateral corresponding to the "compensation" that must be made between the invoice for stock exchange transactions and the advance payments, seeking the actual payment to XM.	5,274	1,636
Department of Antioquia, Construction Agreement via El Aro - Municipality of Ituango	Manage the resources provided by the Government of Antioquia to co-finance the construction of the El Aro Road - Puerto Valdivia Road Connection Dam Site - Municipality of Ituango	2,721	2,605

Fund or agreement EPM	Destination	2019	2018
Sinpro Education Fund	Promote the welfare of the workers to meet the needs of payment of tuition, texts and equipment required to advance studies for themselves or their family members.	2,392	2,258
Sintraemdes Education Fund	Promote the welfare of the workers to attend to the payment needs of registration, texts and equipment required to advance studies for themselves or their family members.	2,274	2,107
Cuenca Verde (Green Basin)	Manage resources assigned for compliance with the objectives of the <i>Corporación CuencaVerde</i> .	2,167	40
Contract No. CT-2019-001105	Contract for the supply of energy and power for the unregulated market and support of contracts of the energy distributor and marketer S.A. E.S.P, DICEL S.A. E.S.P.	2,000	-
Agreement <i>puntos SOMOS</i> (points)	Provision of services for the operation of the key capabilities associated with the Points element of the Large-Scale Loyalty Program for the EPM Group.	1,727	1,651
Sintraemdes Calamity Fund	Promoting the well-being of workers to meet urgent and unforeseen needs for themselves or their nuclear family group.	1,674	1,613
Sinpro Calamity Fund	Promoting the well-being of workers to meet urgent and unforeseen needs for themselves or their nuclear family group.	1,448	1,310
INTERADMINISTRATIVE CONTRACT Number Pc-2017-001532 From 2017	Construction and intervention of water and sewerage networks in the Pepe Sierra I, Barrios de Jesús, el Progreso and Cañada del Niño neighborhoods	1,438	494
5 Esc. Indígenas (Indigenous Peoples') 2019-20 Agreement	Co-finance the development of indigenous educational centres within the framework of the Aldeas (village) program, for the improvement of the quality of life of indigenous communities in the department of Antioquia	995	-
Aldeas (Villages) Program	Use wood that completes its maturation cycle in the forests planted by EPM around its reservoirs, to build social interest housing in the municipalities of Antioquia outside the Aburrá Valley and deliver it to low-income families, preferably in a situation of forced or voluntary displacement.	731	732
Municipality of Medellín - Water	Integrated management of water for human consumption by the inhabitants of the municipality of Medellín.	509	382
Municipality of Guatapé and Cornare	Join efforts to improve technical, economic and social conditions for the implementation of phase 1 of the project to improve the environmental and landscape infrastructure of the Malecón San Juan del Puerto Malecón (harbor), for the development of sustainable tourism in the municipality of Guatapé.	448	1,994
Motorcycle Repair Fund	Promote welfare of workers who work in the regional market and use motorcycles to perform their work.	426	406
IDB Credit 2120	Disbursement for the construction of the Bello wastewater treatment plant (WTP).	335	2,289
Guatapé Autonomous Corporation	Join efforts to improve the technical, economic and social conditions for the execution of phase 1 of the project to improve the environmental and landscape infrastructure of the Malecón San Juan del Puerto (harbor), for the development of sustainable tourism in the municipality of Guatapé.	311	1,742
INTER-ADMINISTRATIVE AGREEMENT CT -2017-001388 (460007009)	Agreement for the construction of 7 indigenous schools in 5 municipalities	253	1,057
Adapted Health Entity Fund and Fosyga Fund	Control and monitoring mechanism for the collection of contributions from the General Social Security Health Contribution System (Régimen Contributivo del Sistema General de Seguridad Social en Salud).	152	1,857

Fund or agreement EPM	Destination	2019	2018
Resource management for the construction of infrastructure in the Madera neighborhood for Emvarias in the La Pradera landfill.	Administration of resources for the construction of infrastructure in wood for Emvarias in the La Pradera landfill.	114	124
Deposits Law 820	Guarantee required by the landlord to the tenant, for the payment of public services. According to Article 15 of Law 820 of 2003 and Regulatory Decree 3130 of 2003.	68	59
Espíritu santo	EPM - Settlement Espíritu Santo	62	60
Municipality of Medellín - Land	Acquisition of land identified and characterized within the watershed protection zones that supply water systems in the municipality of Medellín.	61	58
Agreements with municipalities on public lighting and cleaning rates	Agreement to manage the resources of the territorial entities for the payment to the municipalities with agreements of collection of the rates of public lighting and solid waste collection, resources exempt of the 4x1000 levy.	51	1,572
Bogotá Bolívar Gallery	Adapting Carrera 51 (Bolívar) between 44th (San Juan) and 57th (La Paz) streets and converting this road segment into what will be called La Galería Bolívar.	15	23
Municipality of Medellín - Moravia	Construction, repair and replacement of water 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-administrative agreement to join efforts for the design and construction of electricity generation and distribution systems in rural areas in the Department of Antioquia.	2	2
IDEA Agreement 4600003283	Join efforts for the construction of household gas connections in the different sub-regions of the Department of Antioquia under the <i>Gas sin Fronteras</i> (Natural Gas without Borders) program.	1	1
Contribution of the municipalities of Pueblorrico and Ciudad Bolívar	Agreement for the construction of seven rural indigenous schools	-	90
Bogotá INCODER Bank	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 Urabá Antioqueño region" with multipurpose scope.	-	4,791
Bogotá <i>Parques del río</i> (River Parks) Agreement	Relocation of the public service networks for the development of the project called <i>Parques del Río Medellín</i> .	-	1
Framework Agreement Municipality of Medellín No. 4600049285	Construction by EPM of platforms and other road elements in the city downtown, taking advantage of the Centro Parrilla project, i.e. the renovation of water and sewage networks.	-	39
Thermal District	Agreement with the Ministry of the Environment and Sustainable Development for the development of activities in the La Alpujarra Thermal District.	-	71
Ministry of Mines and Energy	Contributions from the Ministry of Mines and Energy in accordance with the provisions of the FAER GGC 430 contract of 2015 for rural electrification works in the Municipality of Ituango	-	191
Municipality of Barbosa - Grants	Agreement to partially subsidize the connection of users in strata 1 and 2	-	62
Municipality of Caldas	To manage and administer the resources allocated by the municipality of Caldas for the development of the project: Construction, replacement and modernization of water and sewerage networks and their complementary works, in the urban area of the municipality of Caldas	-	116
Total restricted resources EPM		84,565	79,823

Figures stated in millions of Colombian pesos

Fund or agreement Aguas Nacionales	Destination	2019	2018
Savings Account ITAU 153148929	Ministerio (Ministry) project	18,973	25,212
Current account Bancolombia 536423	Aguas de Atrato	416	183
Caja general	Aguas de Atrato	1	1
Savings account remuneración ITAU	PTAR (WTP) Project	-	5,853
Total restricted resources Aguas Nacionales		19,390	31,250

Figures stated in millions of Colombian pesos

Fund or agreement CENS	Destination	2019	2018
BBVA -Miniminas 756	Execution of rural electrification works in the municipalities of the Norte de Santander department	2,900	-
BBVA -Miniminas 757	Execution of rural electrification works in the municipalities of the Norte de Santander department	2,742	-
BBVA -Miniminas 761	Execution of rural electrification works in the municipalities of the Norte de Santander department	2,445	-
BBVA -Miniminas 764	Execution of rural electrification works in the municipalities of the Norte de Santander department	2,429	-
BBVA -Miniminas 767	Execution of rural electrification works in the municipalities of the Norte de Santander department	2,417	-
BBVA XM Custody Account Bank Guarantees	Warranty and TIES of compliance to cover energy purchase projects.	1,470	711
Housing Rotary Fund	Housing loans for CENS S.A. employees	1,132	1,008
BBVA -Miniminas 717	Execution of rural electrification works in the municipalities of the Norte de Santander department	821	-
BBVA -Miniminas 718	Execution of rural electrification works in the municipalities of the Norte de Santander department	659	-
BBVA -Miniminas 720	Execution of rural electrification works in the municipalities of the Norte de Santander department	656	-
Convenio Ecopetrol-Bogotá	Join technical, administrative and financial efforts to execute the rural electrification works in the municipalities of Tibú and El Carmen, Norte de Santander department, in accordance with the activities contemplated in the Expansion of Coverage Plan OR CENS - PECOR, and the Rural Electrification Program for the Catatumbo Area and the Province of Ocaña III.	508	469

FAER Catatumbo III	Execution of rural electrification works in the municipalities of Convención, San Calixto, Cáchira, Hacarí, Ocaña, La Playa, Villa Caro, Teorama and La Esperanza in the department of Norte de Santander	189	221
AOM Agreement	Management operation, maintenance and replacement of the rural electrification assets built with the resources of the project "Programa de electrificación rural zona del Catatumbo y Provincia de Ocaña, etapa 1, Norte de Santander".	65	65
Ecopetrol-Davivienda Agreement	Join technical, administrative and financial efforts to execute the rural electrification works in the municipalities of Tibú and El Carmen, Norte de Santander department, according to the activities contemplated within the Coverage Expansion Plan OR CENS - PECOR, and the Rural Electrification Program for the Catatumbo Zone and Ocaña Province III.	42	249
Gobernación-Davivienda Agreement	Join technical, administrative and financial efforts between Norte de Santander department and Norte de Santander power plants - C.E.N.S. S.A. E.S.P., execute the rural electrification works, of Norte de Santander department.	29	-
Fundescat	Execution of the rural electrification works in the municipalities of Tibú and Tarra, Norte de Santander department	-	9
Gobernación Agreement	Join technical, administrative and financial efforts between the Norte de Santander department and Norte de Santander power plants - C.E.N.S. S.A. E.S.P., execute the rural electrification works in the municipalities of Ábrego, El Carmen and El Tarra, in the Norte de Santander department.	-	98
Total restricted resources CENS		18,504	2,831

Figures stated in millions of Colombian pesos

Fund or agreement EPM CHILE S.A	Destination	2019	2018
AES GENER S.A.	COLLATERAL OF 5.000.000	16,293	-
Total restricted resources EPM CHILE S.A		16,293	-

Figures stated in millions of Colombian pesos

Fund or agreement Grupo Ticsa México	Destination	2019	2018
TRUST BANCO DEL BAJÍO 15892649	Restricted resources ECOSISTEMAS DE COLIMA S.A. DE C.V. - Mexico	4,954	4,204
TRUST BANCO DEL BAJÍO/MULTIVA	Restricted resources ECOSISTEMAS DE TUXTLA S.A. DE C.V. - Mexico	4,847	2,554
TRUST BANCO NACIONAL DE OBRAS Y S	Restricted resources AQUASOL MORELIA S.A. DE C.V. - Mexico	3,493	-
TRUST BANCO DEL BAJÍO 15892649	Restricted resources AQUASOL MORELIA S.A. DE C.V. - Mexico	1,646	6,786
TRUST BANCO DEL BAJÍO 15892649	Restricted resources ECOSISTEMAS DE CELAYA S.A. DE C.V. - Mexico	930	1,295
TRUST BANCO NACIONAL DE OBRAS Y S	Restricted resources ECOSISTEMAS DE CELAYA S.A. DE C.V. - Mexico	365	-
Total restricted resources Grupo Ticsa México		16,235	14,839

Figures stated in millions of Colombian pesos

Fund or agreement Empresas Varias	Destination	2019	2018
ENCARGO FID 919301039524 - Pradera	Resources for <i>Pradera</i> Payments	12,209	12,454
ENCARGO FID 919301039524 - Pradera	Resources for <i>Pradera</i> Payments	1,987	2,219
FL BBVA 423 Pruning-Felling Agreement (Convenio Poda-Tala)	Delegated management contract with the Municipality of Medellin for the service of green area cutting and tree pruning and felling	32	31
Convenio 18-897796-47 EDU	Agreement with the municipality of Medellin for the collection of temporary debris gathering centers	23	319
FL Occidente INDER	Agreement with INDER for washing bridges and stadium roofs	3	8
Encargo 919301039523 - Pradera	Resources for <i>Pradera</i> Payments	2	388
FL Convenio green areas (zonas verdes) 400054603	Agreement for the service of Green Areas	-	2
FL Bancolombia 6093-Closure (Clausura)	Resources allocated for the payment of the closing, closure and post-closure of <i>Pradera</i> .	-	1
Total restricted resources Empresas Varias		14,257	15,422

Figures stated in millions of Colombian pesos

Fund or agreement Empresas Públicas de Rionegro	Destination	2019	2018
Collateral for Historical Centre works	Deposit in guarantee for the purchase EPRIO Municipality of Rionegro	8,736	8,388
Christmas Lighting Agreement	Contracts 194-545 Municipality of Rionegro	-	382
Agreement on water supply and sewerage works	Delegated management contract 073-2017 Municipality of Rionegro	-	11
Christmas Lighting Agreement	Delegated management contract 198-2017 Municipality of Rionegro	-	10
Agreement on water supply and sewerage works	Agreement 094-2017 Municipality of Rionegro	-	4
Agreement on water supply and sewerage works	Delegated management contract 180-2017 Municipality of Rionegro	-	1
Total restricted resources Empresas Públicas de Rionegro		8,736	8,797

Figures stated in millions of Colombian pesos

Fund or agreement ESSA	Destination	2019	2018
BBVA Guarantees 0408	XM Bank Account	3,221	3,366
FAER GGC Agreement 411	Rural electrification agreement signed with the Ministry of Mines and Energy	1,275	-
FAER GGC Agreement 413	Rural electrification agreement signed with the Ministry of Mines and Energy	935	-
FAER GGC Agreement 416	Rural electrification agreement signed with the Ministry of Mines and Energy	903	-
Agreement Line 115 Pto Wilches	Rural electrification agreement Pto Wilches - Barrancabermeja line	856	589
Gobernación - ESSA Phase V Agreement	Agreement on rural electrification	448	444
San Gil Public Lighting Agreement	San Gil Public Lighting Agreement	333	494
FAER GGC Agreement 381	Rural electrification agreement signed with the Ministry of Mines and Energy	100	521
FAER GGC Agreement 382	Rural electrification agreement signed with the Ministry of Mines and Energy	23	965
FAER GGC Agreement 377	Rural electrification agreement signed with the Ministry of Mines and Energy	3	5,042
Public hearings resources agreement Convenio Recursos audiencias públicas	Rural electrification agreement signed with the Ministry of Mines and Energy	1	1
Inter-administrative Agreement	Relocation of power line section	-	844
FAER Resources	Rural electrification agreement management resources	-	41
Total restricted resources ESSA		8,098	12,307

Figures stated in millions of Colombian pesos

Fund or agreement Aguas Regionales	Destination	2019	2018
Execution Act No.1 Framework Convention CT_2019_001417 (Acta de ejecución No.1 Convenio Marco CT_2019_001417)	Elaboración de estudio de factibilidad para nuevas fuentes de captación de agua para el abastecimiento de agua potable en la zona central de la región de Urabá.	5,000	-
Sintraesmdes housing fund agreement	Préstamos de vivienda a los funcionarios que cumplan con los requisitos	88	56
Total restricted resources Aguas Regionales		5,088	56

Figures stated in millions of Colombian pesos

Fund or agreement EDEQ	Destination	2019	2018
FL Davienda Housing fund 136270148986 FL- Fiducrdicorp Housing fund 919301005560	Resources aimed at improving the quality of life of workers through the granting of credits for the purchase and improvement of housing.	2,582	1,559
FL Fiduciaria Occidente 1101031000001 FL Dav Cart Colect 608136200000618 FL Dav Fond Bien soc cap 136270162219	Resources allocated to facilitate workers and their families' access to higher education, health, welfare and recreation.	240	229
FL Davivienda Motorcycle fund 136270167200	Resources allocated to provide workers with loans to purchase and replace motorcycles for their work.	16	16
FL Davi Calamity fund 136000742868	Resources allocated for events caused by serious and unforeseen situations affecting workers or their families.	4	7
Total restricted resources EDEQ		2,842	1,811

Figures stated in millions of Colombian pesos

Fund or agreement CHEC	Destination	2019	2018
Special housing fund	Fund created to provide housing loans to CHEC employees, in accordance with the procedure and conditions established in the Collective Labour Convention in force - CCTV, signed between the company's union SINTRAELECOL and CHEC	501	2,421
XM Custody and Management Account	A fund created to provide guarantees for the operations of energy transactions on the stock exchange, which is managed and controlled by the XM market manager	352	98
CONFA Special Fund	Special fund created for the attention of social programs and cultural extension for CHEC employees; through a contract of delegated administration with the company CONFA	200	198
Building Maintenance Fund	Fund created to attend the maintenance of CHEC buildings, through delegated management contract	150	159
Environmental Management Administration Fund	Fund to execute the environmental management plans in the area of influence of the CHEC power plants.	100	99
Special property fund	Fund created for the management of forest conservation properties in the company's watersheds; through a delegated management contract.	65	24
Generation plant maintenance fund	Fund created to attend the civil maintenance of the CHEC minor generation plants, through a delegated management contract.	16	240
Special Funds <i>Plan de Financiación Social</i> (Social Financing Plan)	A fund created to attend to microcredits made to users in the company's market, with collection through the energy bill; these credits have more favorable rates and conditions than those offered by the market. This programme was created by the company's Board of Directors.	10	1,037
Special Learning Agreement Fund	Fund created to serve the programs of the annual training agenda of CHEC employees; through a delegated management contract.	7	30
Total restricted resources CHEC		1,399	4,307

Figures stated in millions of Colombian pesos

Fund or agreement HET	Destination	2019	2018
Deposits - ETESA - Occasional market and rural electrification (OER)	ENERGY	337	334
Certificate of deposit - ETESA contract	ENERGY	297	335
Other services	Other services	31	26
Certificate of deposit - Anam contract	Right-of-use	-	1,168
Deposits - Sura	Management	-	69
Total restricted resources HET		665	1,931

Figures stated in millions of Colombian pesos

Fund or agreement Aguas de Malambo	Destination	2019	2018
Restricted resource agreement Vida	For the <i>Fuente de Vida</i> agreement of the Micromeditation Program	-	1
Total restricted resources Aguas de Malambo		-	1

Figures stated in millions of Colombian pesos

Total restricted resources EPM Group	196,072	173,375
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Figures stated in millions of Colombian pesos

Note 19. Equity

19.1 Issued capital

The Group does not have its Capital divided in Shares.

Capital	2019	2018
Initial balance	67	67
Movement of the period	-	-
Total	67	67

Figures stated in millions of Colombian pesos

19.2 Reserves

Of the items that conform equity, the reserves at the cut-off date were constituted by:

Reserves	2019	2018
Legal reserves ⁽¹⁾		
Initial balance	1,656,754	2,587,163
Establishment	101,167	56,358
Release	(256,714)	(986,767)
Other movements	(144)	-
Final balance of legal reserves	1,501,063	1,656,754
Occasional reserves		
Initial balance	598,394	579,717
Establishment	4,071	18,677
Release	(21,717)	-
Other movements	580,748	-
Final balance of occasional reserves	577,529	598,394
Other reserves		
Initial balance	305,510	312,403
Establishment	16,133	2,244
Release	(65,590)	(9,139)
Other movements	3,219	-
Final balance of other reserves	259,272	305,508
Total reserves	2,337,862	2,560,657

Figures stated in millions of Colombian pesos

The nature and purpose of the Group's equity reserve are described:

- **Legal Reserves:** In compliance with Colombian tax provisions contained in Article 130 (70% reserve for excess tax depreciation over accounting depreciation) of the Tax Code and Decree 2336 of 1995 (for profits incorporated into results in the application of the equity method applied under local regulations), EPM Group companies operating in Colombia have constituted legal reserves.

For subsidiaries in El Salvador, the legal reserve is established in accordance with the current Commercial Code. Companies must establish a legal reserve of 7% of net profits annually, with a minimum limit of one fifth of their capital stock. In addition, in accordance with the Income Tax Law, when the legal reserve is decreased for any circumstance, such as capitalization, application to prior years' losses or distribution, it will constitute taxable income for the company for the amount that was deducted for income tax purposes in tax years prior to the decrease, and will be liquidated separately from ordinary income, at the rate of 25%. For such purposes, the company will keep a record of the constitution of the legal reserve and of the amount deducted for the determination of the net or taxable income in each year or period of taxation.

For Guatemalan subsidiaries, according to the Code of Commerce, all corporations must annually appropriate at least 5% of their net profits to constitute the legal reserve, which cannot be distributed until liquidation of the company. However, this reserve may be capitalized when it is equal to or greater than 15% of the paid-in capital at the close of the immediately preceding fiscal year, without limitation to continuing to reserve the 5% mentioned.

For subsidiaries in other countries where the EPM Group operates, no legal reserves have been established by law.

- ⁽¹⁾ The Board of Directors of EPM at its meetings on 26 March 2019 and 20 March 2018, approved:

Release reserves of \$256,216 (2018: \$990,610) gathered in prior periods by authorization of the Board of Directors.

- **Occasional Reserves:** in compliance with article 211 of the Tax Statute, and the companies of the EPM Group operating in Colombia have constituted the required reserves in order to enjoy the special tax treatment and obtain a rationalization in the payment of income and complementary taxes.
- **Other reserves:** includes statutory reserves for repurchase of shares and share certificates, equity funds and others, which at 31 December record the net balance corresponding to the releases made by the subsidiaries in those reserves that have already met the requirements for release.

19.3. Retained earnings

The movements of retained earnings during the period was:

Accumulated income	2019	2018
Initial balance	15,650,483	13,692,151
Movement of reserves	222,651	918,626
Surpluses or dividends decreed	(1,289,652)	(1,203,504)
Transfer from other comprehensive income	(8,993)	(51)
Equity method for changes in equity	(162)	-
Purchases and sales to non-controlling interests	(40,216)	2
Income tax related to transactions with owners	1,955	(341)
Other movement for the period	(17,842)	(14,693)
Total accumulated income before net income or loss for the year	14,518,224	13,392,190
Net profit or loss for the period of controlling interest	2,985,182	2,258,293
Total accumulated income	17,503,406	15,650,483

Figures stated in millions of Colombian pesos

Surplus paid during the year was \$1,289,652 (2018: \$1,503,504), \$703,447 (2018: \$656,457) ordinary and \$586,205 (2018: \$547,047) extraordinary. In 2018 includes payment of \$300,000 from the sale of ISAGEN.

19.4. Non-controlling interests

The movement of the non-controlling interests at the cut-off date is:

Non-Controlling Interests	2019	2018
Initial Balance	953,707	857,654
Surpluses or dividends decreed	(139,590)	(106,956)
Share in profit or loss for the period	170,794	159,245
Share in other comprehensive income	3,603	6,306
Purchase and sale to non-controlling interest	(31,561)	33
Income tax related to transactions with owners	1,866	(326)
Adjustment for conversion of equity and results	(2,569)	-
Other movements for the period	8,323	37,751
Total accumulated income	964,572	953,707

Figures stated in millions of Colombian pesos

Note 20. Accumulated other comprehensive income

The breakdown of each component of the other comprehensive income for the consolidated statement of financial position and the corresponding tax effect is as follows:

Accumulated other comprehensive income	2019			2018		
	Gross	Tax effect	Net	Gross	Tax effect	Net
Reclassification of property, plant and equipment to investment property	13,438	(1,204)	12,234	13,439	(1,643)	11,796
Remeasurement of defined benefit plans	(115,483)	38,338	(77,145)	(47,279)	18,898	(28,381)
Equity investments measured at fair value through equity	2,796,497	(2,092)	2,794,405	2,300,129	(131,825)	2,168,304
Participation in other comprehensive income of associates and joint ventures	(3,914)	-	(3,914)	(3,640)	-	(3,640)
Cash flow hedges	8,421	(30,005)	(21,584)	(21,581)	(48,922)	(70,503)
Translation of financial statements of foreign operations	600,765	-	600,765	817,051	-	817,051
Total	3,299,724	5,037	3,304,761	3,058,119	(163,492)	2,894,627

Figures stated in millions of Colombian pesos

A reconciliation of the opening and closing balances at the cut-off date is presented below for each component of comprehensive income:

20.1 Component reclassification of property, plant and equipment to investment property

The component of reclassification of property, plant and equipment to investment property of other comprehensive income corresponds to transfers from property, plant and equipment to investment property, which are measured at fair value. changes in fair value do not reclassify to profit or loss for the period.

Reclassification of property, plant and equipment to investment property	2019	2018
Initial balance	11,796	12,079
Associated income tax (or equivalent)	-	(283)
Other changes	438	-
Total	12,234	11,796

Figures stated in millions of Colombian pesos

20.2. Component new measurements of defined benefit plans

The component of new measurements of defined benefit plans represents the accrued value of actuarial profits or losses, the return on plan assets and changes in the effect of the asset ceiling, excluding the values included in the net interest on the liability (asset) of net defined benefits. The net value of the new measurements is transferred to retained earnings and does not reclassify to profit or loss for the period.

Component new measurements of defined benefit plans	2019	2018
Initial balance	(28,381)	(29,557)
Profit or loss for the period due to new measurements of defined benefit plans	(67,674)	(3,409)
Associated income tax (or equivalent)	19,038	4,440
Accumulated income transferred to the accumulated income for the period	507	-
Associated income tax (or equivalent)	29	-
Purchase and sale to non-controlling interest	(108)	-
Other changes	(556)	144
Total	(77,145)	(28,381)

Figures stated in millions of Colombian pesos

20.3. Component equity investments measured at fair value through equity

The component of other comprehensive income from equity investments measured at fair value through equity represents the accumulated value of the profits or losses from the assessment at fair value less the values transferred to retained profit when these investments have been sold. Changes in fair value do not reclassify to the result of the period.

Equity investments measured at fair value through equity	2019	2018
Initial balance	2,168,304	2,173,345
Net earnings due to changes in the fair value of investment property	458,002	(9,156)
Associated income tax (or equivalent)	129,733	4,045
Accumulated income transferred to retained earnings	8,477	70
Purchase and sale to non-controlling interest	(1,090)	-
Other changes	30,979	-
Total	2,794,405	2,168,304

Figures stated in millions of Colombian pesos

20.4. Participation in other comprehensive income of associates and joint ventures

The component of other comprehensive income from participation in other comprehensive income of associates and joint ventures represents the accumulated value of applying the equity method to profits and losses of other comprehensive income of associates and joint ventures. The accrued value of the profits or losses will be reclassified to the profit or loss for the period or to the accrued profit or loss, depending on the items that originated the equity method, when these investments have been sold.

Participation in other comprehensive income of associates and joint ventures	2019	2018
Initial balance	(3,640)	(2,582)
New measurements of defined benefit plans	(241)	(277)
Result from translation of foreign operations	(89)	49
Associated income tax (or equivalent)	33	37
Hedging operations	-	(868)
Equity method through changes in equity	23	-
Total	(3,914)	(3,640)

Figures stated in millions of Colombian pesos

20.5. Component: cash flow hedges

The component of other comprehensive income from cash flow hedges represents the accumulated value of the effective portion of the gains or losses that arise from changes in the fair value of hedged items in a cash flow hedge. The accumulated value of the profits or losses will reclassify to profit or loss for the period only when the hedged transaction affects the profit or loss for the period or the highly probable transaction is not expected to occur, or is included, as part of its recorded value, in a heading non-financial item.

Cash flow hedges	2019	2018
Initial balance	(70,503)	(5,789)
Profit or loss through changes in the fair value of hedging instruments	(54,327)	3,181
Associated income tax (or equivalent)	35,234	(77,848)
Cumulative profit (loss) due to changes in the fair value of hedging instruments reclassified as profit/loss for the period	83,179	-
Associated income tax (or equivalent)	(15,970)	-
Purchase and sale to non-controlling interest	803	9,953
Total	(21,584)	(70,503)

Figures stated in millions of Colombian pesos

20.6. Component: Profit or loss for translation of foreign operations

The translation differences component represents the cumulative value of the exchange differences arising from the translation into the Group's presentation currency of profit and loss and net assets of foreign operations, as well as profit or loss on hedging instruments that are designated as a hedge of a net investment in a foreign operation. The accumulated translation differences are reclassified to the results of the period, partially or totally, when the foreign operation is disposed of.

Profit or loss for translation of foreign operations	2019	2018
Initial Balance	817,051	716,674
Net exchange differences for translation of foreign operations	(213,480)	100,377
Purchase and sale to non-controlling interest	(2,806)	-
Total	600,765	817,051

Figures stated in millions of Colombian pesos

Note 21. Loans and borrowings

The following is the breakdown of the recorded value of loans and borrowings measured at amortized cost:

Loans and borrowings	2019	2018
Non-current		
Commercial banks loans	3,774,443	4,139,390
Other bonds and securities issued	9,151,073	6,177,480
Multilateral banks loans	3,326,049	3,249,965
Development banks loans	822,669	1,819,138
Bonds and securities issued	597,305	643,168
Total non-current	17,671,539	16,029,141
Current		
Commercial banks loans	1,542,949	1,581,113
Multilateral banks loans	268,895	615,309
Other bonds and securities issued	497,125	2,029,387
Bonds and securities issued	462,901	391,119
Development banks loans	212,596	177,626
Other loans	-	11,105
Total current	2,984,466	4,805,659
Total loans and borrowings	20,656,005	20,834,800

Figures stated in millions of Colombian pesos

The breakdown of loans and borrowings is as follows:

Company	Entity or loan	Original Currency	Initial Date	Years	Nominal interest rate	31 December 2019				31 December 2018			
						IRR	Nominal Value	Amortized cost value	Total Amount	IRR	Nominal Value	Amortized cost value	Total Amount
AGUAS DE ANTOFAGASTA	Banco BICE-BCI	CLP	1/1/2018	-	-	0.00%	14	-	14	0.00%	3	-	3
AGUAS DE ANTOFAGASTA	Banco del Estado	CLP	10/23/2014	5.00	UF + 1.9%	1.04%	-	-	-	1.04%	9,670	(27)	9,643
AGUAS DE ANTOFAGASTA	Banco del Estado	CLP	1/14/2015	10.00	UF + 2.9%	1.51%	121,157	1,691	122,848	1.51%	151,157	2,107	153,265
AGUAS DE ANTOFAGASTA	Banco del Estado	CLP	10/18/2018	5.00	TAB + 0.65%	1.42%	393,744	12,661	406,404	1.42%	433,144	2,355	435,499
AGUAS DE ANTOFAGASTA	Scotiabank	CLP	10/18/2018	5.00	TAB + 0.65%	1.50%	768,418	24,868	793,286	1.50%	845,310	4,966	850,276
AGUAS REGIONALES	Popular	COP	6/1/2018	7.00	IBR + 3%	7.54%	11,476	74	11,551	7.41%	13,563	85	13,648
AGUAS REGIONALES	Bogotá	COP	10/28/2015	10.00	DTF T.A. + 2.6%	7.21%	510	7	517	7.27%	595	8	603
AGUAS REGIONALES	HELM	COP	3/16/2012	12.00	DTF T.A. + -1%	2.61%	3,504	61	3,565	2.63%	4,328	99	4,427
AGUAS REGIONALES	Bbva	COP	5/20/2014	10.00	DTF T.A. + -0.7%	3.24%	563	8	571	3.27%	688	12	700
AGUAS REGIONALES	Bbva	COP	12/19/2014	10.00	DTF T.A. + -0.7%	3.50%	861	6	866	3.55%	1,033	9	1,042
AGUAS REGIONALES	Davivienda	COP	2/19/2018	10.00	IPC + 4.8%	8.80%	20,000	205	20,205	8.22%	5,000	47	5,047
CENS	Bancolombia	COP	1/31/2018	1.00	IBR + 1.86%	0.00%	-	-	-	6.17%	7,000	70	7,070
CENS	BBVA	COP	9/28/2018	1.00	IPC + 2.6%	0.00%	-	-	-	5.91%	15,000	11	15,011
CENS	Bogotá	COP	9/4/2012	7.00	IBR + 1.88%	0.00%	-	-	-	5.86%	6,000	125	6,125
CENS	Bogotá	COP	5/15/2014	7.00	IBR + 1.88%	6.35%	3,000	18	3,018	6.35%	5,000	27	5,027
CENS	Bogotá	COP	12/18/2015	7.00	IBR + 1.88%	5.78%	6,000	47	6,047	7.63%	8,000	(17)	7,983
CENS	Bogotá	COP	2/16/2018	10.00	IBR + 2.98%	7.30%	129,218	3,402	132,620	7.40%	137,832	3,590	141,422
CENS	Popular	COP	5/15/2017	10.00	IBR + 3.35%	7.64%	34,913	375	35,288	7.64%	37,241	432	37,672
CENS	Popular	COP	5/26/2017	10.00	IBR + 3.35%	7.63%	8,006	71	8,078	7.64%	8,540	81	8,621
CENS	Popular	COP	6/23/2017	10.00	IBR + 3.35%	7.62%	6,098	21	6,120	7.65%	6,505	21	6,526
CENS	Popular	COP	6/29/2017	10.00	IBR + 3.35%	7.60%	9,527	27	9,554	7.61%	10,162	33	10,195
CENS	Popular	COP	7/18/2017	10.00	IBR + 3.35%	7.58%	14,951	547	15,498	7.60%	14,951	560	15,511
CENS	Popular	COP	7/27/2017	10.00	IBR + 3.35%	7.66%	6,500	210	6,710	7.60%	6,500	230	6,730
CENS	Popular	COP	8/23/2017	10.00	IBR + 3.35%	7.76%	6,000	143	6,143	7.71%	6,000	155	6,155
CENS	Popular	COP	9/15/2017	12.00	IBR + 3.35%	7.67%	6,442	142	6,584	7.69%	6,442	144	6,586
CENS	Popular	COP	9/19/2017	10.00	IBR + -1.8%	2.99%	5,923	119	6,042	3.16%	5,923	79	6,002
CENS	Popular	COP	9/19/2017	10.00	IBR + 3.075%	7.11%	11,846	346	12,192	9.53%	11,846	348	12,194
CENS	Popular	COP	11/17/2017	12.00	IBR + 3.35%	7.61%	9,659	110	9,769	7.62%	9,659	120	9,779
CENS	Popular	COP	11/17/2017	10.00	IBR + -1.8%	2.78%	4,077	49	4,126	2.91%	4,077	27	4,104
CENS	Popular	COP	11/17/2017	10.00	IBR + 3.075%	7.11%	8,154	147	8,301	9.47%	8,154	129	8,283
CENS	Popular	COP	12/18/2017	10.00	IBR + 3.35%	7.56%	20,000	129	20,129	7.59%	20,000	136	20,136
CENS	Popular	COP	1/18/2018	9.00	IBR + 3.35%	7.56%	37,000	1,392	38,392	7.57%	37,000	1,429	38,429
CENS	BBVA	COP	10/18/2018	1.00	IPC + 2.6%	0.00%	-	-	-	5.94%	5,000	59	5,059
CENS	Davivienda	COP	11/29/2018	10.00	IPC + 4.3%	8.28%	6,000	49	6,049	7.72%	6,000	39	6,039
CENS	Davivienda	COP	12/19/2018	10.00	IPC + 4.3%	8.37%	15,000	4	15,004	7.71%	15,000	37	15,037
CENS	Davivienda	COP	1/2/2019	10.00	IPC + 4.3%	8.35%	20,000	739	20,739	0.00%	-	-	-
CENS	Davivienda	COP	1/18/2019	10.00	IPC + 4.3%	8.33%	14,000	476	14,476	0.00%	-	-	-
CENS	Bogotá	COP	2/1/2019	1.00	IBR + 1.9%	5.86%	7,000	175	7,175	0.00%	-	-	-
CENS	Davivienda	COP	6/14/2019	12.00	IBR + 1.15%	5.34%	20,000	35	20,035	0.00%	-	-	-

Company	Entity or loan	Original Currency	Initial Date	Years	Nominal interest rate	31 December 2019				31 December 2018			
						IRR	Nominal Value	Amortized cost value	Total Amount	IRR	Nominal Value	Amortized cost value	Total Amount
CENS	Davivienda	COP	6/27/2019	12.00	IBR + 1.15%	5.34%	5,713	(1)	5,712	0.00%	-	-	-
CENS	Davivienda	COP	6/28/2019	12.00	IBR + 3.47%	7.81%	4,287	3	4,290	0.00%	-	-	-
CENS	Occidente	COP	12/16/2019	7.00	IBR S.V. + 2.75%	0.00%	35,000	98	35,098	0.00%	-	-	-
CHEC	BBVA	COP	8/22/2014	10.00	IPC + 3.5%	7.20%	39,781	529	40,310	6.65%	48,156	628	48,784
CHEC	Corpbanca	COP	8/22/2014	10.00	IPC + 3.5%	7.20%	30,281	405	30,687	6.64%	36,656	482	37,138
CHEC	Bancolombia	COP	2/9/2018	8.00	IBR + 2.29%	6.70%	50,781	743	51,524	6.70%	58,906	855	59,761
CHEC	Davivienda	COP	12/27/2018	12.00	IBR + 0.388%	4.59%	43,000	159	43,159	4.59%	43,000	21	43,021
CHEC	Davivienda	COP	3/29/2019	12.00	IBR + 0.388%	4.59%	4,475	1	4,476	0.00%	-	-	-
CHEC	Popular	COP	4/24/2019	1.00	IBR + 1.65%	5.97%	70,000	79	70,079	0.00%	-	-	-
CHEC	Davivienda	COP	11/20/2019	12.00	IBR + 0.388%	4.59%	1,814	2	1,816	0.00%	-	-	-
DEL SUR	Citibank	USD	12/27/2018	-	+ 4.9%	0.00%	-	-	-	0.00%	14,624	-	14,624
DEL SUR	Davivienda	USD	8/26/2013	10.00	LIBOR 3M + 3.7%	1.02%	47,109	231	47,339	1.02%	54,840	296	55,135
DEL SUR	Davivienda	USD	10/7/2015	10.00	LIBOR 3M + 4.2%	1.02%	39,326	475	39,801	1.02%	43,872	557	44,428
DEL SUR	BONDS	USD	8/16/2010	10.00	LIBOR 6M + 3%	1.52%	68,820	413	69,233	1.52%	68,245	425	68,669
EDEQ	DAVIVIENDA	COP	11/12/2015	7.00	DTF + 2.66%	0.00%	-	-	-	8.35%	5,875	(43)	5,832
EDEQ	AV VILLAS	COP	6/23/2016	7.00	IBR + 3.1%	7.02%	2,099	17	2,116	10.67%	2,699	19	2,718
EDEQ	AV VILLAS	COP	9/15/2017	7.00	IBR + 3.1%	7.47%	5,700	13	5,713	7.48%	6,000	13	6,013
EDEQ	AV VILLAS	COP	2/22/2019	3.75	DTF T.A. + 2.3%	6.88%	4,415	35	4,450	0.00%	-	-	-
EDEQ	BANCOLOMBIA	COP	5/3/2019	7.00	IBR + 2.74%	0.00%	-	-	-	6.21%	11,000	105	11,105
EDEQ	OCCIDENTE	COP	11/29/2019	7.00	IBR + 2.75%	7.16%	10,000	61	10,061	0.00%	-	-	-
EDEQ	AV VILLAS	COP	11/5/2019	6.50	IBR + 2.3%	6.59%	11,000	108	11,108	0.00%	-	-	-
ENSA	Scotiabank	USD	12/7/2018	0.25	LIBOR + 2.68%	0.00%	-	-	-	2.68%	19,499	35	19,533
ENSA	BONDS	USD	7/10/2006	15.00	7.6%	8.16%	327,714	9,676	337,390	8.16%	324,975	8,465	333,440
ENSA	BONDS	USD	12/13/2012	15.00	4.73%	3.46%	262,171	(2,256)	259,915	3.46%	259,980	(2,520)	257,460
ENSA	Scotiabank	USD	10/3/2018	5.00	4.25%	4.25%	327,714	804	328,518	4.25%	324,975	732	325,707
ENSA	Bladex	USD	12/2/2019	0.08	0.4%	2.11%	32,771	15	32,787	2.90%	19,499	5	19,503
ENSA	Davivienda	USD	12/11/2019	0.25	0.3%	2.19%	32,771	40	32,811	0.00%	-	-	-
ENSA	Davivienda	USD	12/12/2019	0.25	0.3%	2.19%	16,386	19	16,405	0.00%	-	-	-
EP RIO	Bogotá	COP	6/15/2016	10.00	DTF T.A. + 5%	10.26%	2,031	(8)	2,023	10.19%	2,344	(11)	2,332
EP RIO	Bogotá	COP	10/19/2015	10.00	DTF T.A. + 5%	10.11%	2,188	(2)	2,185	10.18%	2,563	(4)	2,558
EP RIO	Bogotá	COP	2/28/2016	10.00	DTF T.A. + 5%	10.08%	3,292	(10)	3,282	10.16%	3,792	(14)	3,778
EP RIO	Bogotá	COP	7/27/2016	10.00	DTF T.A. + 5%	10.18%	771	(5)	766	10.22%	896	(6)	890
EPM	1257 BONDS IPC II TRANCHE	COP	1/22/2009	10.00	IPC + 5.8%	0.00%	-	-	-	9.16%	138,600	2,366	140,966
EPM	1259 BONDS TF II TRANCHE	COP	1/22/2009	10.00	10.8%	0.00%	-	-	-	10.79%	74,700	7,558	82,258
EPM	1261 BONDS IPC III TRANCHE	COP	4/21/2009	15.00	IPC + 6.24%	10.24%	198,400	4,321	202,721	9.63%	198,400	4,260	202,660
EPM	1264 BONDS IPC IV TRANCHE 2	COP	12/14/2010	12.00	IPC + 4.2%	8.18%	119,900	513	120,413	7.58%	119,900	515	120,415
EPM	1265 BONDS IPC IV TRANCHE 3	COP	12/14/2010	20.00	IPC + 4.94%	8.99%	267,400	634	268,034	8.40%	267,400	548	267,948
EPM	1268 BONDS IPC V TRANCHE II	COP	12/4/2013	10.00	IPC + 4.52%	8.80%	96,210	(206)	96,004	8.17%	96,210	(311)	95,899
EPM	1269 BONDS IPC V TRANCHE III	COP	12/4/2013	20.00	IPC + 5.03%	9.24%	229,190	(1,560)	227,630	8.62%	229,190	(1,541)	227,649

Company	Entity or loan	Original Currency	Initial Date	Years	Nominal interest rate	31 December 2019				31 December 2018			
						IRR	Nominal Value	Amortized cost value	Total Amount	IRR	Nominal Value	Amortized cost value	Total Amount
EPM	1270 BONDS IPC VI TRANCHE I	COP	7/29/2014	6.00	IPC + 3.57%	7.98%	125,000	1,289	126,289	7.36%	125,000	740	125,740
EPM	1271 BONDS IPC VI TRANCHE II	COP	7/29/2014	12.00	IPC + 4.17%	8.39%	125,000	409	125,409	7.78%	125,000	166	125,166
EPM	1272 BONDS IPC VI TRANCHE III	COP	7/29/2014	20.00	IPC + 4.5%	8.68%	250,000	219	250,219	8.08%	250,000	(100)	249,900
EPM	1274 BONDS IPC V TRANCHE IV	COP	3/20/2015	10.00	IPC + 3.65%	8.64%	130,000	369	130,369	8.01%	130,000	362	130,362
EPM	1275 BONDS IPC VII TRANCHE I	COP	3/20/2015	5.00	IPC + 2.72%	6.81%	120,000	217	120,217	6.13%	120,000	167	120,167
EPM	1276 BONDS IPC VII TRANCHE II	COP	3/20/2015	12.00	IPC + 3.92%	7.94%	120,000	132	120,132	7.34%	120,000	146	120,146
EPM	1277 BONDS IPC VII TRANCHE III	COP	3/20/2015	20.00	IPC + 4.43%	8.43%	260,000	886	260,886	7.83%	260,000	949	260,949
EPM	2218 BID 800- RESETTLED	USD	7/14/1994	25.00	LIBOR + 1.43%	0.00%	-	-	-	2.43%	26,312	827	27,138
EPM	1665 BID-1664-1	COP	12/9/2005	20.00	7.8%	9.14%	284,769	3,938	288,707	9.24%	332,231	4,367	336,598
EPM	1220 BID 2120	USD	3/25/2009	25.00	LIBOR + 0%	2.83%	353,055	(5,661)	347,394	3.62%	374,249	(1,614)	372,635
EPM	2021 BID 2120-1	COP	3/25/2009	25.00	6.272%	7.49%	190,295	(2,750)	187,545	7.25%	190,295	(2,591)	187,704
EPM	2179 BANK OF TOKYO-MITSUB	USD	9/29/2008	15.00	LIBOR + 0.95%	1.24%	218,441	9,037	227,478	2.07%	270,782	14,372	285,154
EPM	1266 GLOBAL 2021 COP	COP	1/31/2011	10.00	8.375%	14.03%	130,822	2,998	133,820	8.70%	1,250,000	88,210	1,338,210
EPM	1273 GLOBAL 2024 COP	COP	9/3/2014	10.00	7.625%	7.74%	965,745	17,919	983,664	7.74%	965,745	17,243	982,988
EPM	1262 BONDS INTERNACIONALE	USD	7/29/2009	10.00	7.625%	0.00%	-	-	-	8.25%	1,624,875	49,306	1,674,181
EPM	5765 AGRARIO	COP	5/20/2014	16.00	IPC + 4.7%	8.94%	116,000	(862)	115,138	8.38%	116,000	(1,234)	114,766
EPM	1013 AFD	USD	8/10/2012	14.00	4.311%	4.47%	738,875	12,333	751,208	4.47%	824,287	13,588	837,875
EPM	2015 CLUB DEAL BANK OF TOKYO	USD	12/29/2015	5.00	LIBOR + 1.4%	0.00%	-	0	0	4.94%	763,691	6,548	770,239
EPM	2022 BID 2120-2	COP	3/25/2009	25.00	7.5%	8.23%	363,057	(679)	362,379	8.06%	388,096	1,624	389,720
EPM	2016 BNDES	USD	4/26/2016	23.50	4.887%	5.42%	158,247	(4,503)	153,744	5.22%	132,517	(4,144)	128,373
EPM	1278 GLOBAL 2027 COP	COP	10/31/2017	10.00	8.375%	8.45%	3,530,000	28,768	3,558,768	8.46%	2,300,000	15,626	2,315,626
EPM	2023 BID 2120-3	COP	3/25/2009	25.00	6.265%	6.71%	180,750	825	181,576	6.56%	193,216	2,134	195,350
EPM	1014 EDC	USD	8/4/2016	6.00	LIBOR + 1.4%	0.00%	-	-	-	4.65%	974,925	10,059	984,984
EPM	6017 POPULAR	COP	1/15/2018	1.00	IBR + 1.8%	0.00%	-	-	-	6.06%	100,000	1,312	101,312
EPM	6018 Bancolombia	COP	1/22/2018	1.00	IBR + 1.59%	0.00%	-	-	-	5.87%	100,000	1,110	101,110
EPM	6019 Bancolombia	COP	1/29/2018	1.00	IBR + 1.59%	0.00%	-	-	-	5.87%	70,000	697	70,697
EPM	6020 Bancolombia	COP	2/19/2018	1.00	IBR + 1.59%	0.00%	-	-	-	5.89%	130,000	873	130,873
EPM	1015 CAF	USD	10/3/2016	18.00	LIBOR + 3.1%	5.26%	655,428	3,432	658,860	6.28%	649,950	5,285	655,235
EPM	9999 FEES UNDISBURSED LOANS	USD	1/0/1900	-	+ 0%	0.00%	-	-	-	0.00%	-	(20,185)	(20,185)
EPM	1230 IDB INVEST TRANCHE 12 years	USD	12/29/2017	12.00	Libor 6M + 2.75%	5.66%	1,228,928	(44,316)	1,184,612	6.37%	1,218,656	(36,582)	1,182,074
EPM	1231 IDB INVEST TRANCHE 8 years	USD	12/29/2017	8.00	Libor 6M + 2.125%	5.26%	245,786	(8,528)	237,258	5.88%	243,731	(7,346)	236,385
EPM	1019 COLPATRIA	COP	12/19/2018	1.00	IBR + 1.78%	0.00%	-	-	-	6.06%	100,000	199	100,199
EPM	1020 BBVA	COP	12/20/2018	10.00	8.375%	0.00%	-	-	-	6.07%	35,000	59	35,059
EPM	1018 BANCOLOMBIA	COP	11/22/2018	3.00	IBR S.V. + 3.5%	7.12%	450,000	9,404	459,404	0.00%	-	-	-
EPM	1017 HSBC	USD	11/26/2018	3.00	Libor 6M + 2.75%	0.00%	-	(3,472)	(3,472)	0.00%	-	-	-
EPM	1023 1023 BONDS USD	USD	7/11/2019	10.00	4.25%	4.39%	3,277,140	39,066	3,316,206	0.00%	-	-	-
ESSA	Bogotá	COP	2/26/2013	7.00	IBR + 1.88%	5.89%	5,600	35	5,635	5.85%	28,000	216	28,216
ESSA	Bogotá	COP	4/11/2013	7.00	IBR + 1.88%	5.89%	3,650	50	3,700	5.92%	10,950	162	11,112
ESSA	Bogotá	COP	5/20/2013	7.00	IBR + 1.88%	5.76%	700	6	706	5.73%	2,100	21	2,121

Company	Entity or loan	Original Currency	Initial Date	Years	Nominal interest rate	31 December 2019				31 December 2018			
						IRR	Nominal Value	Amortized cost value	Total Amount	IRR	Nominal Value	Amortized cost value	Total Amount
ESSA	Bogotá	COP	4/10/2014	7.00	IBR + 1.88%	5.92%	5,400	80	5,480	5.94%	9,000	141	9,141
ESSA	Bogotá	COP	4/16/2014	7.00	IBR + 1.88%	5.97%	3,000	41	3,041	6.00%	5,000	71	5,071
ESSA	Bogotá	COP	4/30/2015	7.00	IBR + 1.88%	6.15%	6,500	66	6,566	6.17%	9,100	91	9,191
ESSA	Bogotá	COP	1/27/2016	7.00	IBR + 1.88%	6.23%	9,750	92	9,842	6.25%	12,750	114	12,864
ESSA	Bogotá	COP	2/16/2016	7.00	IBR + 1.88%	6.27%	8,450	49	8,499	6.27%	11,050	60	11,110
ESSA	Bogotá	COP	3/28/2016	7.00	IBR + 1.88%	6.16%	4,550	1	4,551	6.02%	5,950	18	5,968
ESSA	Bogotá	COP	4/14/2016	7.00	IBR + 1.88%	6.27%	5,950	65	6,015	6.29%	7,650	79	7,729
ESSA	Bogotá	COP	7/1/2016	12.00	IBR + 3.15%	7.57%	17,500	265	17,765	7.59%	19,500	281	19,781
ESSA	Bogotá	COP	8/19/2016	12.00	IBR + 3.15%	7.53%	7,000	47	7,047	7.54%	7,800	52	7,852
ESSA	Bogotá	COP	10/13/2016	12.00	IBR + 3.15%	7.57%	8,100	101	8,201	7.60%	9,000	106	9,106
ESSA	Bogotá	COP	11/11/2016	12.00	IBR + 3.15%	7.66%	31,500	129	31,629	7.63%	35,000	170	35,170
ESSA	Bogotá	COP	12/5/2016	12.00	IBR + 3.15%	7.59%	7,200	9	7,209	7.60%	8,000	9	8,009
ESSA	Bogotá	COP	12/14/2016	12.00	IBR + 3.15%	7.57%	13,500	4	13,504	7.58%	15,000	0	15,000
ESSA	Bogotá	COP	1/11/2017	12.00	IBR + 3.15%	7.57%	13,869	181	14,051	7.59%	14,994	184	15,179
ESSA	Bogotá	COP	1/16/2017	12.00	IBR + 3.15%	7.56%	9,244	115	9,360	7.58%	9,994	117	10,112
ESSA	Bogotá	COP	5/15/2017	12.00	IBR + 3.15%	7.57%	9,500	57	9,557	7.58%	10,000	57	10,057
ESSA	Bogotá	COP	6/14/2017	12.00	IBR + 3.56%	8.08%	9,500	20	9,520	8.09%	10,000	18	10,018
ESSA	Bogotá	COP	6/29/2017	12.00	IBR + 3.56%	7.93%	7,600	31	7,631	7.94%	8,000	36	8,036
ESSA	Bogotá	COP	7/13/2017	12.00	IBR + 3.56%	8.06%	9,750	154	9,904	8.09%	10,000	151	10,151
ESSA	Bogotá	COP	9/28/2017	12.00	IBR + 3.56%	8.07%	14,625	(10)	14,615	8.08%	15,000	(14)	14,986
ESSA	Bogotá	COP	10/12/2017	12.00	IBR + 3.56%	8.05%	5,000	82	5,082	8.08%	5,000	78	5,078
ESSA	Bogotá	COP	10/30/2017	12.00	IBR + 3.56%	8.05%	5,000	62	5,062	8.08%	5,000	59	5,059
ESSA	Bogotá	COP	11/29/2017	12.00	IBR + 3.56%	8.08%	7,000	36	7,036	8.08%	7,000	36	7,036
ESSA	Bogotá	COP	12/11/2017	12.00	IBR + 3.56%	8.04%	4,000	16	4,016	8.05%	4,000	15	4,015
ESSA	Bogotá	COP	12/14/2017	12.00	IBR + 3.56%	8.04%	14,000	46	14,046	8.05%	14,000	44	14,044
ESSA	Bogotá	COP	12/26/2017	12.00	IBR + 3.56%	8.11%	90,000	(178)	89,822	8.13%	90,000	(230)	89,770
ESSA	Bogotá	COP	12/26/2017	12.00	IBR + 3.15%	7.56%	10,000	(21)	9,979	7.57%	10,000	(26)	9,974
ESSA	BBVA	COP	10/29/2018	12.00	IBR + 2.91%	7.35%	40,000	449	40,449	7.35%	40,000	492	40,492
ESSA	BBVA	COP	11/28/2018	12.00	IBR + 2.91%	7.34%	6,000	36	6,036	7.35%	6,000	39	6,039
ESSA	BBVA	COP	12/26/2018	12.00	IBR + 2.91%	7.33%	54,000	70	54,070	7.34%	54,000	52	54,052
ESSA	Popular	COP	12/28/2018	12.00	IBR + 2.91%	7.22%	106,000	68	106,068	7.24%	106,000	61	106,061
ESSA	Popular	COP	12/27/2019	12.00	IBR + 2.91%	7.22%	94,000	72	94,072	0.00%	-	-	-
DECA GROUP	Banco Agromercantil	USD	4/27/2018	1.00	LIBOR + 2.03%	0.00%	-	-	-	4.33%	159,237	-	159,237
DECA GROUP	Bancolombia	USD	7/9/2018	1.00	LIBOR + 2.03%	0.00%	-	-	-	4.33%	129,989	-	129,989
DECA GROUP	Banco Industrial	GTQ	12/20/2018	10.00	TAPP + -6.8%	6.11%	111,100	7	111,106	6.19%	109,627	181	109,808
DECA GROUP	Banco América Central	GTQ	12/21/2018	10.00	TAPP + -6.81%	6.11%	65,127	(10)	65,118	6.14%	64,264	95	64,359
DECA GROUP	Banco Agromercantil	GTQ	1/24/2019	10.00	TAPP + -6.87%	6.05%	136,214	1,286	137,500	6.82%	42,002	(258)	41,744
DECA GROUP	Banco América Central	USD	12/21/2018	10.00	LIBOR 90 + 2.26387%	4.58%	98,315	(380)	97,934	5.10%	97,492	120	97,611
DECA GROUP	Banco Internacional	USD	12/19/2018	10.00	TAPP + -1.25%	5.37%	16,386	63	16,449	5.10%	16,249	24	16,273

Company	Entity or loan	Original Currency	Initial Date	Years	Nominal interest rate	31 December 2019				31 December 2018			
						IRR	Nominal Value	Amortized cost value	Total Amount	IRR	Nominal Value	Amortized cost value	Total Amount
DECA GROUP	Banco Agromercantil	USD	1/24/2019	10.00	LIBOR 90 + 3.05%	5.39%	19,663	179	19,842	0.00%	-	-	-
DECA GROUP	Banco Industrial	USD	12/15/2017	1.00	TAPP + -1.5%	0.00%	32,772	-	32,772	0.00%	-	-	-
DECA GROUP	Banco Industrial	GTQ	12/20/2018	10.00	TAPP + -6.8%	6.11%	142,173	5	142,178	6.05%	140,289	-	140,289
DECA GROUP	Banco América Central	GTQ	12/26/2018	10.00	TAPP + -6.81%	6.11%	65,553	(10)	65,543	6.00%	64,684	-	64,684
DECA GROUP	Banco Agromercantil	GTQ	1/25/2019	10.00	TAPP + -6.87%	6.05%	136,214	1,298	137,512	0.00%	-	-	-
DECA GROUP	Banco América Central	USD	12/26/2018	10.00	LIBOR 90 + 2.26387%	4.58%	32,772	(125)	32,647	5.00%	32,497	-	32,497
DECA GROUP	Banco Internacional	USD	12/19/2018	10.00	TAPP + -1.25%	5.37%	16,386	63	16,449	5.00%	16,249	-	16,249
DECA GROUP	Mercom Bank LTD	USD	1/25/2019	10.00	LIBOR 90 + 3.05%	5.37%	19,663	188	19,851	0.00%	-	-	-
DECA GROUP	Bancolombia Panamá	USD	1/25/2019	10.00	LIBOR 90 + 3.05%	5.38%	78,652	713	79,365	0.00%	-	-	-
DECA GROUP	Bancolombia Panamá	USD	7/16/2019	1.00	LIBOR 30 + 2.07%	4.37%	32,772	-	32,772	0.00%	-	-	-
DECA GROUP	Banco Industrial	GTQ	4/25/2019	5.00	TAPP + -6.25%	6.67%	332,022	(71)	331,951	0.00%	-	-	-
TICSA	Bank of America	MXN	4/16/2018	1.00	TIIE + 1.75%	0.00%	-	-	-	10.35%	9,950	-	9,950
TICSA	Bank of America	USD	1/2/2019	1.00	LIBOR + 2.25%	0.00%	-	-	-	10.35%	12,677	-	12,677
TICSA	Bank of America	MXN	4/6/2018	1.00	TIIE + 1.75%	0.00%	-	-	-	10.35%	28,547	-	28,547
TICSA	Santander	MXN	6/14/2016	7.00	TIIE + 2.15%	12.47%	30,929	329	31,258	12.20%	36,704	172	36,876
TICSA	Santander	MXN	6/14/2016	10.00	TIIE + 2.15%	12.57%	50,600	45	50,645	12.41%	53,031	(116)	52,915
TICSA	Santander	MXN	6/14/2016	14.00	TIIE + 2.15%	13.33%	18,931	116	19,047	13.15%	18,861	58	18,919
TICSA	Interacciones	MXN	8/1/2007	15.33	TIIE + 3%	7.54%	17,694	1,687	19,381	11.60%	22,748	854	23,603
TICSA	Interacciones	MXN	5/1/2011	8.00	TIIE + 3.9%	12.41%	-	-	-	8.28%	1,646	6	1,651
TICSA	Banco del Bajío	MXN	7/31/2013	14.67	TIIE + 2.75%	8.57%	64,417	15	64,432	11.35%	65,184	(643)	64,542
TICSA	FIDE	MXN	12/9/2015	3.00	+ 0%	8.69%	-	-	-	8.69%	469	(428)	41
TICSA	Santander	MXN	5/25/2018	1.00	TIIE + 3%	11.51%	4,323	-	4,323	11.60%	4,916	-	4,916
TICSA	Bank of America	MXN	7/23/2018	1.00	TIIE + 1.75%	10.26%	-	-	-	10.35%	9,571	-	9,571
TICSA	Bank of America	MXN	9/3/2018	1.00	TIIE + 1.75%	10.26%	-	-	-	10.35%	11,551	-	11,551
TICSA	Bank of America	MXN	12/4/2018	1.00	TIIE + 2.25%	10.76%	14,700	(117)	14,583	10.85%	11,551	-	11,551
TICSA	Bank of America	USD	9/28/2018	1.00	LIBOR + 2.25%	10.35%	-	-	-	10.35%	10,341	-	10,341
Total							20,524,224	131,781	20,656,005	-	20,628,839	205,961	20,834,800

Figures stated in millions of Colombian pesos

Interest paid on loans as at 31 December 2019 was \$1,517,994 (2018: \$1,191,430).

The net exchange difference at 31 December 2019 assumed associated with debt was \$-103,866 (2018: \$-278,638).

Information on bonds and securities issued is:

Subseries	Original currency	Initial date	Years	Nominal interest rate	31 December 2019				31 December 2018				Amount awarded							
					IRR	Nominal value	Amortized cost value	Total amount	IRR	Nominal value	Amortized cost value	Total amount	Amount awarded 2018	Amount awarded 2017	Amount awarded 2016	Amount awarded 2015	Amount awarded 2014	Amount awarded 2013	Amount awarded 2012	
A10a	COP	1/22/2009	10	IPC + 5.8%	0.00%	-	-	-	9.16%	138,600	2,366	140,966	138,600	138,600	138,600	138,600	138,600	138,600	138,600	138,600
A10a	COP	12/4/2013	10	IPC + 4.52%	8.80%	96,210	(206)	96,004	8.17%	96,210	(311)	95,899	96,210	96,210	96,210	96,210	96,210	96,210	96,210	-
A10a	COP	3/20/2015	10	IPC + 3.65%	8.64%	130,000	369	130,369	8.01%	130,000	362	130,362	130,000	130,000	130,000	130,000				
A12a	COP	12/14/2010	12	IPC + 4.2%	8.18%	119,900	513	120,413	7.58%	119,900	515	120,415	119,900	119,900	119,900	119,900	119,900	119,900	119,900	119,900
A12a	COP	7/29/2014	12	IPC + 4.17%	8.39%	125,000	409	125,409	7.78%	125,000	166	125,166	125,000	125,000	125,000	125,000	125,000	-	-	-
A12a	COP	3/20/2015	12	IPC + 3.92%	7.94%	120,000	132	120,132	7.34%	120,000	146	120,146	120,000	120,000	120,000	120,000	-	-	-	-
A15a	COP	4/21/2009	15	IPC + 6.24%	10.24%	198,400	4,321	202,721	9.63%	198,400	4,260	202,660	198,400	198,400	198,400	198,400	198,400	198,400	198,400	198,400
A20a	COP	12/14/2010	20	IPC + 4.94%	8.99%	267,400	634	268,034	8.40%	267,400	548	267,948	267,400	267,400	267,400	267,400	267,400	267,400	267,400	267,400
A20a	COP	12/4/2013	20	IPC + 5.03%	9.24%	229,190	(1,560)	227,630	8.62%	229,190	(1,541)	227,649	229,190	229,190	229,190	229,190	229,190	229,190	229,190	-
A20a	COP	7/29/2014	20	IPC + 4.5%	8.68%	250,000	219	250,219	8.08%	250,000	(100)	249,900	250,000	250,000	250,000	250,000	250,000	-	-	-
A20a	COP	3/20/2015	20	IPC + 4.43%	8.43%	260,000	886	260,886	7.83%	260,000	949	260,949	260,000	260,000	260,000	260,000	-	-	-	-
A5a	COP	3/20/2015	5	IPC + 2.72%	6.81%	120,000	217	120,217	6.13%	120,000	167	120,167	120,000	120,000	120,000	120,000	-	-	-	-
A6a	COP	7/29/2014	6	IPC + 3.57%	7.98%	125,000	1,289	126,289	7.36%	125,000	740	125,740	125,000	125,000	125,000	125,000	125,000	125,000	-	-
C10a	COP	1/22/2009	10	10.8%	0.00%	-	-	-	10.79%	74,700	7,558	82,258	74,700	74,700	74,700	74,700	74,700	74,700	74,700	74,700
International bond	USD	7/29/2009	10	7.625%	0.00%	-	-	-	8.25%	1,624,875	49,306	1,674,181	1,624,875	1,492,000	1,500,355	1,574,735	1,196,230	963,415	884,115	
International bond	COP	1/31/2011	10	8.375%	14.03%	130,822	2,998	133,820	8.70%	1,250,000	88,210	1,338,210	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
International bond	COP	9/3/2014	10	7.625%	7.74%	965,745	17,919	983,664	7.74%	965,745	17,243	982,988	965,745	965,745	965,745	965,745	965,745	-	-	-
International bond	COP	10/31/2017	10	8.375%	8.45%	3,530,000	28,768	3,558,768	8.46%	2,300,000	15,626	2,315,626	2,300,000	2,300,000	-	-	-	-	-	-
International bond	USD	7/11/2019	10	4.25%	4.39%	3,277,140	39,066	3,316,206	0.00%	-	-	-	-	-	-	-	-	-	-	-
TOTAL BONDS ISSUED						9,944,807	95,974	#####		8,395,020	186,210	8,581,230	8,395,020	8,262,145	5,970,500	6,044,880	5,036,375	3,337,815	2,933,115	

Figures stated in millions of Colombian pesos, the exchange rate used was the MRR at the closing of each period

The breakdown of international bonds issued by the Group is as follows:

ENSA:

Type of bond	Original currency	Initial date	Years	Nominal interest rate	31 December 2019				31 December 2018				Amount awarded						
					IRR	Nominal value	Amortized cost value	Total amount	IRR	Nominal value	Amortized cost value	Total amount	2018	2017	2016	2015	2014	2013	2012
Preference bonds	USD	7/10/2006	15	7.6%	8.16%	327,714	9,676	337,390	8.16%	324,975	8,465	333,440	-	-	-	-	-	-	-
Corporate bonds	USD	12/13/2012	15	4.73%	3.46%	262,171	-	2,256	259,915	3.46%	259,980	-	2,520	257,460	-	-	-	-	141,458
TOTAL						589,885	7,420	597,305		584,955	5,945	590,900	-	-	-	-	-	-	141,458

Figures stated in millions of Colombian pesos, the exchange rate used was the MRR at the closing of each period

DELSUR:

Type of bond	Original currency	Initial date	Years	Nominal interest rate	31 December 2019				31 December 2018				Amount awarded						
					IRR	Nominal value	Amortized cost value	Total amount	IRR	Nominal value	Amortized cost value	Total amount	2018	2017	2016	2015	2014	2013	2012
INVESTMENT BONDS - CIDELSUR1 (ScotiaInversiones, BVES)	USD	8/16/2010	10	LIBOR 6M + 3%	1.52%	68,820	413	69,233	1.52%	68,245	425	68,669	-	-	-	-	-	-	-
TOTAL						68,820	413	69,233		68,245	425	68,669	-	-	-	-	-	-	-

Figures stated in millions of Colombian pesos, the exchange rate used was the MRR at the closing of each period

In 2019, EPM Group had the following significant changes related to loans and borrowings:

New loans

January

- EPM Holding company: Colpatria for \$165,000 and BBVA for \$300,000.
- Aguas Regionales EPM S.A. E.S.P.: Davivienda for \$4,800.
- Centrales Electricas del Norte de Santander S.A. E.S.P. (CENS): Davivienda for \$34,000.
- Deca Group: Banco Industrial S.A. for USD \$5 million.

February

- EPM Holding company: Bancolombia for \$1,000,000 and HSBC for USD \$500 million.
- Central de Energía Norte de Santander (CENS): Banco de Bogotá for COP 7,000.
- Empresa de Energía del Quindío S.A. E.S.P. (EDEQ): Banco AV Villas for COP 5,519.
- Deca Group: Banco Industrial S.A. for US\$ 4 million.

March

- Aguas Regionales EPM S.A. E.S.P.: Davivienda for \$1,300.
- Empresa de Distribución de Energía del Noreste de Panamá S.A. (Ensa): Davivienda for USD \$10 million.
- Deca Group: Banco Industrial S.A. for USD \$6 million.

April

- Caldas Hydroelectric Plant (CHEC): Banco Popular for \$70,000.
- Tecnología Intercontinental S.A (TICSA): Bank of America for MXN \$233.3 million.
- Deca Group: Banco Industrial S.A. for GTQ \$780 million and USD \$5 million.

May

- Empresa de Energía del Quindío S.A. E.S.P. (EDEQ): Banco AV Villas for \$5,000 and Bancolombia for \$11,000.
- Empresa de Distribución de Energía del Noreste de Panamá S.A. (Ensa): The Bank of Nova Scotia (Panama) for USD \$7 million.
- Deca Group: Banco Agromercantil for GTQ \$192.5 million.

June

- Central de Energía Norte de Santander (CENS): Davivienda for \$30,000.
- Empresa de Energía del Quindío S.A. E.S.P. (EDEQ): Banco Popular for \$6,000.
- Tecnología Intercontinental S.A. (TICSA): Bank of America for MXN \$233.3 million.
- Empresa de Distribución de Energía del Noreste de Panamá S.A. (Ensa): Davivienda for USD \$17 million and The Bank of Nova Scotia (Panama) for USD \$13 million.
- Deca Group: Banco de Desarrollo Rural for USD \$18 million.

July

- EPM Holding company: BNDES for USD \$1.9 million.

- Empresa de Distribución de Energía del Noreste de Panamá S.A. (Ensa): The Bank of Nova Scotia (Panama) for USD \$25 million.
- Del sur: Bank of Central America for USD \$5 million.
- Deca Group: Bancolombia Panama for USD \$10 million.

August

- Central de Energía Norte de Santander (CENS): Banco de Occidente for \$10,000.
- Empresa de Distribución de Energía del Noreste de Panamá S.A. (Ensa): The Bank of Nova Scotia (Panama) for USD \$4 million and Bladex for USD \$4 million.

September

- EPM Holding company: BNDES new loan for USD \$5.6 million.
- Empresa de Distribución de Energía del Noreste de Panamá S.A. (Ensa): Bladex for USD \$3 million.

November

- Caldas Hydroelectric Plant (CHEC): Davivienda for \$1,814.
- Empresa de Energía del Quindío S.A. E.S.P. (EDEQ): Banco de Occidente for \$10,000 and Banco Av Villas for \$11,000.

December

- Central de Energía Norte de Santander (CENS): Banco de Occidente for \$35,000.
- Empresa de Distribución de Energía del Noreste de Panamá S.A. (Ensa): Davivienda for USD \$15 million, Bladex for USD \$10 million.
- Electrificadora de Santander (ESSA): Banco Popular for \$94,000.

Voluntary pre-payment

July

- EPM Holding company: Bancolombia partial voluntary pre-payment for \$300,000.

August

- EPM Holding company: Bancolombia partial voluntary pre-payment for \$250,000.

October

- EPM Holding company: Colpatria total voluntary pre-payment for \$265,000 and BBVA total voluntary prepayment for \$35,000.

December

- EPM Holding company: BBVA total voluntary pre-payment for \$300,000.

Debt Exchange / roll-over

January

Deca Group: Banco Agromercantil for GTQ \$447.5 million, Banco Internacional for USD \$6 million, Mercom Bank LTD for USD \$6 million and Bancolombia Panama for USD \$24 million.

July

EPM performed a Debt Exchange / roll-over consisting of:

- Early repurchase of \$1.1 trillion, corresponding to the international bond issue scheduled to mature in January 2021, with a balance of \$1.25 trillion, under a "Tender Offer" scheme. This repurchase corresponded to 89.5% of the balance of that financial liability.
- Issuance of two tranches of bonds in the international capital market, for an amount equivalent to USD \$1,382 million: USD \$1 billion with a 10-year term and reopening of the global peso bond, maturing in 2027, for \$1.23 trillion.
- Voluntary pre-payment of USD \$1,035 million, of Club Deal International loans for USD \$235 million, HSBC for USD \$500 million and EDC for USD \$300 million.

Debt/EBITDA Covenant

On 29 December 2017, EPM entered into a credit agreement for USD 1 billion ("IDB Invest Loan") with the Inter-American Investment Corporation ("IDB Invest"), the private sector division of the Inter-American Development Bank. The IDB Invest Loan has an A/B structure in which the IDB group funds tranche A and a group of international commercial banks and institutional investors from North America, Europe and Asia (CDPQ, KfW IPEX, BNP Paribas, ICBC, Sumitomo Mitsui, BBVA and Banco Santander) funds tranche B. Additionally, the IDB Invest Loan includes resources from the China Fund - China co-financing fund managed by IDB Invest. Tranche A and the portion financed by the China Fund have a total term of 12 years, and tranche B has terms of 8 and 12 years. Interest on the IDB Invest Loan accrued at a LIBOR rate plus 2.125% or LIBOR + 2.75% according to the term, payable semi-annually. The proceeds will be disbursed gradually over a 4-year disbursement period. EPM may voluntarily pre-pay the IDB Invest Loan at any time and payment obligations qualify as *pari passu* regarding payment priority with all other present and future unsecured and unsubordinated External Indebtedness of EPM. The IDB Invest Loan provides for certain financial covenants, what indicates that it shall not allow the net debt to Adjusted EBITDA ratio be greater than 4.0 and the interest coverage ratio be less than 3.0. On December 12, 2018, IDB Invest granted EPM a waiver for its non-compliance with certain environmental covenants under the loan agreement caused by of the Ituango Contingency. Currently EPM and IDB Invest are negotiating an amendment to this loan agreement to revise the environmental covenants.

EPM has entered into several loan agreements with the IDB, certain of which are guaranteed by Colombia (the "IDB Loans"). Generally, these loans have been entered into in connection with certain of EPM's infrastructure projects, including the expansion of water and sewage infrastructure in Medellín, the Medellín river clean-up program and the Porce III hydroelectric project. In relation to the Medellín river clean-up program, on March 25, 2009, EPM and the IDB entered into a 25-year credit facility for up to USD 450 million.

These loans provide for an interest rate of (i) LIBOR plus a fixed rate and/or (ii) the IDB lending spread, semi-annual interest payments, cross-defaults in respect of other indebtedness with the IDB and voluntary prepayments. Also, under certain loan agreements, EPM is (i) prohibited from incurring new indebtedness with maturities longer than one year, as a result of which EPM's total financial indebtedness/consolidated Adjusted EBITDA ratio exceeds 3.5, and (ii) required to maintain a long-term indebtedness/net worth ratio not to exceed 1.5. Other restrictive covenants include limitations on liens, limitations on the sale of assets and limitations on investments.

The IDB Loans allow EPM to convert the currency of the outstanding balance, with the authorization of Colombia, the loan's guarantor. On 27 May 2014, EPM converted a tranche of IDB Loan 2120 for an aggregate principal amount of USD 98.6 million to COP 190,295 million, with a fixed interest rate of 6.2716%. On 31 March 2016, EPM converted IDB Loan 1664 for an aggregate principal amount of USD 153.8 million to COP 474,615 million, with a fixed interest rate of 7.80%. On 23 August 2016, EPM converted a tranche of IDB Loan 2120 for an aggregate principal amount of USD 154.3 million to COP 450,692 million, with a fixed interest rate of 7.50%.

On 8 December 2017, EPM converted a tranche of IDB Loan 2120 for an aggregate principal amount of USD 68.3 million to COP 205,681 million, with a fixed interest rate of 6.265%.

Under IDB Loan contract 1664, EPM is required to maintain a total financial indebtedness/consolidated Adjusted EBITDA ratio of 3.5 which is measured and reviewed annually. On December 2018 IDB confirmed that would grant the waiver, in the official communication on 17 January 2019, the IDB granted EPM a waiver for its non-compliance with such ratio for the period ending 31 December 2018 and 2019.

On 29 September 2008, EPM entered into a syndicated loan agreement with The Bank of Tokyo-Mitsubishi UFJ, LTD acting as joint lead arranger and facility and collection agent, and Banco Bilbao Vizcaya Argentaria, S.A., Tokyo Branch, acting as joint lead arranger (the "Japan Bank Loan"). The Japan Bank Loan is guaranteed by the Japan Bank for International Cooperation. The Japan Bank Loan bears interest at LIBOR plus 0.95% per annum. EPM may voluntarily pre-pay the Japan Bank Loan at any time, without premium or penalty (except for mandatory prepayment *Break Funding Costs* in case prepayments are made on a date other than on an interest payment date). Amounts prepaid or repaid under the Japan Bank Loan cannot be re-borrowed. All payment obligations under the Japan Bank Loan rank *pari passu* with all of EPM's unsecured and unsubordinated External Indebtedness. The Japan Bank Loan contains both affirmative and negative covenants and provides for certain cross default events, including defaults under agreements guaranteed by the Japan Bank for International Cooperation or defaults under any of EPM's External Indebtedness. On May 29, 2013, EPM and the Japan Bank for International Cooperation entered into an *Indemnity Agreement*, which provides for certain financial covenants, including covenants pursuant to which EPM may not allow its long-term financial debt to shareholders' equity ratio to exceed 1.5:1.0 or its total financial debt to consolidated Adjusted EBITDA ratio to exceed 3.5:1.0, measured quarterly.

On 24 May 2019, the JBIC granted EPM a waiver for non-compliance with the consolidated Total Financial Debt/Adjusted EBITDA ratio for the period ending 31 December 2018.

On 28 June 2019, the JBIC granted EPM a waiver for non-compliance with the consolidated Long-Term Financial Debt to EBITDA ratio as during the period ended 31 March 2019, the ratio was 4.0:1.0. This waiver also covers the quarters ended 30 June 2019, 30 September 2019 and 31 December 2019, provided that the ratio does not exceed 4.0:1.0.

On 10 August 2012, EPM entered into a credit facility with *Agence Française de Développement* ("AFD" - French Agency of Development), this loan matures in July 2027 and, after 31 January 2016, EPM may voluntarily pre-pay the AFD loan at any time, without premium or penalty (except for mandatory prepayment *Break Funding Costs* in case prepayments are made on a date other than on the interest payment date). All payment obligations under the AFD loan rank at least *pari passu* with all EPM's unsecured and unsubordinated External Indebtedness obligations.

The AFD loan provides for certain financial covenants, including covenants pursuant to which EPM shall maintain an interest coverage ratio of no less than 3.0 and a total financial indebtedness to consolidated Adjusted EBITDA ratio of no more than 3.5, which are reviewed semi-annually. Other restrictive covenants include limitations on liens and limitations on the sale of assets. On 14 December 2018, the AFD granted EPM with a waiver for its non-compliance with the total financial indebtedness to consolidated Adjusted EBITDA ratio as of 31 December 2018 and as of 30 June 2019.

Contractually, one of the management schemes to avoid non-compliance with this type of commitment is the issuance of waivers by creditors.

It is worth mentioning that the fact that EPM exceeds the agreed Debt/EBITDA covenant does not generate a direct activation of default declaration by the banks nor of advance payment, as exercising or not such declaration is a contractual action at the banks' discretion, additional to having remedial periods agreed in the contracts to attend an eventual default.

EPM must report compliance with the Long-Term Financial Debt/EBITDA indicator as follows: to the Japan Bank for International Cooperation -JBIC- on a quarterly basis, to the French Development Agency -AFD- on a semi-annual basis and to the Inter-American Development Bank -IADB on an annual basis. Currently, the waivers granted by the above-mentioned banks are valid for 2019.

JBIC established a new monitoring indicator from June, Net Financial Debt / EBITDA including cash and transitional credits.

Regarding the HSBC credit, the Net Financial Debt/EBITDA indicator has been agreed and is inactive, since EPM has two credit risk ratings at investment grade level.

Default events

During the reporting period, the EPM Group has not defaulted on any principal or interest payment of its loans.

Note 22. Trade and other payables

Trade and other payables are measured at amortized cost and consist of:

Trade and other payables	2019	2018
Non-current		
Creditors	130,662	155,063
Acquisition of goods and services	83,030	62,971
Deposits received as collateral(1)	278,706	257,175
Advance payments received	92,476	4,054
Resources received for management	10,177	15,083
Construction contracts	6,342	8,423
Total trade and other payables non-current	601,393	502,769
Current		
Creditors	734,205	742,979
Acquisition of goods and services	1,685,076	1,784,124
Allocated subsidies	18,261	8,109
Deposits received as collateral(1)	22,456	18,446
Advance payments received	15,419	92,824
Resources received for management	33,562	49,701
Other accounts payable	693	871
Construction contracts	22,472	(470)
Fees payable	2,110	2,110
Total trade and other payables current	2,534,254	2,698,694
Total trade and other payables	3,135,646	3,201,463

Figures stated in millions of Colombian pesos

- ⁽¹⁾ In Guatemala, the Electricity General Act establishes that all new users must provide the distributor with a payment collateral. This collateral may be provided in monetary form or by means of a bond and will be calculated for each user category as the amount equivalent to two average monthly invoices from a typical user in the same category. EEGSA collects such collaterals from its customers and records the amounts received as "Consumer Deposits". In accordance with the provisions of the Electricity General Act, Decree No. 93-96 of 15 November 1996, article 94, as from that date until 10 March 2007, deposits received from customers bore real interest of 5% per annum. As from 11 March 2007, deposits received must be returned by adding to the capital the monthly weighted average lending rate of the banking system. It also establishes that, upon termination of the contract, the distributor must make a settlement that includes the initial amount of the collateral plus the total accrued and capitalized interest each year less any outstanding debt and costs incurred by the user.

As from 31 December 2006, EEGSA records a provision for the amount of interest arising from the payment collaterals.

Deposits received from consumers, plus accrued interest and less any outstanding debt for past services, are refundable to users when they cease to use the electric power service provided by EEGSA. In 2019 these deposits have been classified as non-current liabilities because the company does not expect to make significant payments in the next year, according to estimates and recurrence of customer withdrawals, in addition to the premise of going concern.

As at 31 December 2019, the amount of consumer deposits was \$274,834 (2018: \$227,748).

The term for payment to suppliers is generally 30 calendar days, with exceptions that are documented in the processes and determined by the type of obligation and contract, among others.

Default events

During the accounting period, the Group has not defaulted on the payment of principal or interest on creditors and other accounts payable.

Note 23. Other financial liabilities

The other financial liabilities consist of:

Other financial liabilities	2019	2018
Non-current		
Finance leases	645,576	194,267
Pension bonds ⁽¹⁾	271,341	297,304
Total other financial liabilities non-current	916,917	491,571
Current		
Finance leases	37,184	1,216
Pension bonds ⁽¹⁾	379,477	345,884
Total other financial liabilities current	416,661	347,100
Total other financial liabilities	1,333,578	838,671

Figures stated in millions of Colombian pesos

⁽¹⁾ Variation was generated by the amortized cost and the payments made during the period.

Conventional purchases and sales of financial liabilities are accounted for by applying the trading date. The Group has not designated any financial liabilities at fair value through profit or loss.

Default events

During the accounting period, the EPM Group has not defaulted on the payment of principal and interest on its loans.

Note 24. Derivatives and hedging

The Group has the following types of cash flow hedges, whose fair values at 31 December 2019 amount to \$46,148 (2018: \$192,465).

Hedge Classification	Description	Hedged risk	Tranche	Hedged item	Recorded value of hedged item	Recorded value of hedging instrument	Changes in fair value of the hedging instrument for the period	Changes in fair value of the hedged item for the period	Hedge effectiveness recognized in the profit or loss for the period	Hedge effectiveness recognized in other comprehensive income	Reclassification of other comprehensive income for the period ¹
Cash flow hedging											
Swaps EPM	Cross Currency Swap	USD/COP exchange rate and Libor/fixed debt service rate	Part of Club Deal, AFD and EDC loans	Credit in Dollars	751,208	(45,062)	(10,737)	(7,735)	N.A	(10,737)	(2,302)
Swaps TICS	Interest rate swap	TIE interest rate	Santander loan	Credit in MXN	100,942	(1,086)	(5,470)	N.A	N.A	(5,470)	N.A
Futures	Derivex	Price of sale in energy exchange	N.A	Sales of Energy highly probable	N.A	-	23	N.A	N.A	23	23

Figures stated in millions of Colombian pesos

¹ Reclassification of other comprehensive income to profit or loss for the period, for swap instruments, affected the interest item, difference in exchange, difference in interest and capital of the right; and for the instrument futures contracts affected the item of electricity sales in the stock market. Additionally, \$10,322 were capitalized as borrowing costs mainly to the Ituango Project.

Hedging cash flow

The characteristics of the main cash flow hedging instruments that are under hedge accounting are the following:

Swaps:

EPM

Characteristics					
Hedged underlying	Loan AFD	Loan AFD	Loan AFD	Loan AFD	Loan AFD
Tranche No.	1	2	3	4	5
Closing date	3-Feb-17	6-Feb-17	10-Feb-17	24-Mar-17	30-Mar-17
Derivative type	CCS	CCS	CCS	CCS	CCS
Counterpart	BNP Paribas	BNP Paribas	BNP Paribas	CITI BANK	CITI BANK
Nominal amount (USD)	64,750,000	47,381,250	85,312,500	13,164,375	85,312,500
Spot exchange rate	2,850	2,855	2,850	2,899	2,878
Liability (COP)	184,537,500,000	135,273,468,750	243,140,625,000	38,163,523,125	245,529,375,000
EPM pays	IBR + 0,83	IBR + 0,33	IBR + 0,69	IBR + 0,379	IBR + 0,479
	IBR OIS compound 1 day	IBR OIS compound 1 day	IBR OIS compound 1 day	IBR OIS compound 1 day	IBR OIS compound 1 day
EPM receives	Tasa fija 4,50%	Tasa fija de 4,04%	Tasa fija de 4,32%	Tasa fija de 4,25%	Tasa fija de 4,32%
	Back starting	Back starting	Back starting	Back starting	Back starting
Expiring date	31-Jul-22	31-Jul-22	31-Jul-22	31-Jul-22	31-Jul-22
Initial exchange	No	No	No	No	No
Final exchange	No	No	No	No	No
Modality	Non Delivery	Non Delivery	Non Delivery	Non Delivery	Non Delivery

* CCS : Cross Currency Swap

TICSA

Characteristics	COLIMA	CELAYA	MORELIA
Hedged underlying	Loan Santander	Loan Santander	Loan Santander
Tranche No.	1	1	1
Closing date	31-Dec-19	31-Dec-19	31-Dec-19
Derivative type	swap	swap	swap
Counterpart	Santander	Santander	Santander
Nominal amount (MXN)	282,750,000	95,250,000	246,300,000
Spot exchange rate	N.A	N.A	N.A
Liability (MXN)	377,000,000	127,000,000	328,400,000
EPM pays	6.1259%	6.40%	5.84%
EPM receives	TIIE+Spread Variable	TIIE+Spread Variable	TIIE+Spread Variable
Expiring date	12-Feb-24	10-Dec-26	10-Jan-22
Initial exchange	No	No	No
Final exchange	No	No	No
Modality	Non Delivery	Non Delivery	Non Delivery

Early termination of hedging

The characteristics of the canceled operations in July 2019 are as follows:

Characteristics	Tranche 2	Tranche 3	Tranche 8	Tranche 9	Tranche 14	Tranche 12	Tranche 1	Tranche 2	Tranche 3
Contract date	24-May-16	26-May-16	20-Jun-16	8-Jul-16	21-Jul-16	8-Aug-16	23-Mar-18	3-Apr-18	11-May-18
Hedged underlying	Loan Club Deal	Loan Club Deal	Loan Club Deal	Loan Club Deal	Loan Club Deal	Loan Club Deal	Loan EDC	Loan EDC	Loan EDC
Derivative type	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	Goldman Sachs	Goldman Sachs	Goldman Sachs
Nominal amount (USD)	50,000,000	50,000,000	60,000,000	40,000,000	5,000,000	30,000,000	110,000,000	100,000,000	90,000,000
Spot exchange rate	\$ 3,058	\$ 3,053	\$ 2,976	\$ 2,965	\$ 2,924	\$ 2,990	\$ 2,847	\$ 2,776	\$ 2,816
Liability (COP)	152,900,000,000	152,650,000,000	178,560,000,000	118,600,000,000	14,620,000,000	89,700,000,000	313,170,000,000	277,600,000,000	253,440,000,000
EPM pays	IBR + 2.17	IBR + 2.17	0.093	0.0842	0.0848	0.0844	IBR + 0.432	IBR + 0.4071	IBR + 0.3286
	IBR OIS compound 1 day	IBR OIS compound 1 day					IBR OIS compound 1 day	IBR OIS compound 1 day	IBR OIS compound 1 day
EPM receives	LIBOR 6 months + 140	LIBOR 6 months + 140	LIBOR 6 months + 140	LIBOR 6 months + 140	LIBOR 6 months + 140	LIBOR 6 months + 140	Libor +0%	Libor +0%	Libor +0%
Periodicity	Semiannual	Semiannual	Semiannual	Semiannual	Semiannual	Semiannual	Semiannual	Semiannual	Semiannual
Expiring date	29-Dec-20	29-Dec-20	29-Dec-20	29-Dec-20	29-Dec-20	29-Dec-20	4-Aug-22	4-Aug-22	4-Aug-22
Initial exchange	No	No	No	No	No	No	No	No	No
Final exchange	Si	Si	Si	Si	Si	Si	Si	Si	Si
Cancellation date	22-Jul-19	22-Jul-19	24-Jul-19	23-Jul-19	23-Jul-19	23-Jul-19	18-Jul-19	19-Jul-19	19-Jul-19
Cancellation exchange rate	\$ 3,172	\$ 3,172	\$ 3,186	\$ 3,181	\$ 3,182	\$ 3,182	\$ 3,180	\$ 3,163	\$ 3,166
EPM (Pays / Receives)	Receives	Receives	Receives	Receives	Receives	Receives	Receives	Receives	Receives
Amount of reported liquidity (USD)	USD 1,476,071	USD 1,557,150	USD 1,037,079	USD 1,309,385	USD 229,134	USD 731,855	USD 10,547,947	USD 11,343,857	USD 9,360,428

Embedded derivatives

The Group has not entered into any contracts containing embedded derivatives.

Note 25. Employee benefits

The item of employee benefits recognised at the reporting date have the following composition:

Employee benefits	2019	2018
Non-current		
Post-employment benefits	834,447	767,749
Long-term benefits	96,973	90,671
Termination benefits	63	95
Other benefits	9	-
Total employee benefits non-current	931,492	858,515
Current		
Short-term benefits	147,438	146,148
Post-employment benefits	100,028	104,421
Termination benefits	-	691
Total employee benefits current	247,466	251,260
Total	1,178,958	1,109,775

Figures stated in millions of Colombian pesos

25.1. Post-employment benefits

Comprises of the defined benefit plans and the defined contribution plans detailed below:

25.1.1. Defined benefit plans

Defined benefit plans	Pensions ⁽¹⁾		Retroactive severances ⁽²⁾		Public utilities subsidies ⁽³⁾		Educational Assistance Plan ⁽⁴⁾		Otros defined benefit plans		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Current value of liabilities due to defined benefits												
Initial balance	992,082	1,051,681	130,101	141,061	37,916	40,185	1,289	-	25,617	25,935	1,187,006	1,258,862
Current service cost	2,598	1,383	4,283	4,814	-	171	-	-	2,493	3,950	9,374	10,318
Profit (or loss) due to interests cost	67,328	66,450	7,878	8,732	2,596	2,692	74	85	26	12	77,902	77,972
New measurements	-	-	-	-	195	-	-	-	1,720	-	1,915	-
Actuarial profit or loss due to changes in:												
Assumptions by experience	28,738	6,480	8,314	(6,847)	41	(1,509)	103	(95)	-	-	37,196	(1,971)
Demographic assumptions	(130)	-	-	(16)	-	(141)	-	-	-	-	(130)	(157)
Financial assumptions	26,456	268	3,891	1,619	1,017	(386)	17	29	-	-	31,381	1,530
Past service cost	-	(328)	-	-	-	-	-	-	-	-	-	(328)
Settlement profit or loss	-	-	-	-	-	(432)	-	-	(8)	(599)	(8)	(1,031)
Effect in foreign exchange translation	(2,652)	(38,322)	-	-	3	83	-	-	146	499	(2,503)	(37,739)
Contributions made to the plan	28,171	-	-	-	-	-	-	-	-	-	28,171	-
Payments made by the plan	(94,314)	(96,613)	(18,650)	(19,330)	(2,922)	(2,680)	(197)	(211)	(3,506)	(3,072)	(119,589)	(121,906)
Dispositions	-	-	(1)	-	-	-	-	-	-	(2,446)	(1)	(2,446)
Other changes	239	1,084	-	68	-	(68)	-	1,481	2,206	1,338	2,445	3,903
Present value of liabilities as of 31 December	1,048,516	992,082	135,816	130,101	38,846	37,916	1,286	1,289	28,694	25,617	1,253,159	1,187,006
Fair value of plan assets												
Initial balance	314,836	385,026	-	-	-	-	-	-	-	5,087	314,836	390,113
Contributions made to the plan	47,422	9,277	-	-	-	-	-	-	-	-	47,422	9,277
Payments made by the plan	(62,361)	(65,633)	-	-	-	-	-	-	-	-	(62,361)	(65,633)
Interest income	22,208	21,268	-	-	-	-	-	-	-	-	22,208	21,268
Actuarial profit or loss:												
Expected plan yields (excluding profits due to interests)	(2,886)	(989)	-	-	-	-	-	-	-	-	(2,886)	(989)
Effect in foreign exchange translation	(866)	(32,928)	-	-	-	-	-	-	-	-	(866)	(32,928)
Other changes	331	(1,185)	-	-	-	-	-	-	-	(5,087)	331	(6,272)
Fair value of plan assets as of 31 December	318,684	314,836	-	-	-	-	-	-	-	-	318,684	314,836
Surplus or (deficit) of the defined benefit plan	(729,832)	(677,246)	(135,816)	(130,101)	(38,846)	(37,916)	(1,286)	(1,289)	(28,694)	(25,617)	(934,475)	(872,170)
Net assets (or liabilities) of the defined benefit plan	(729,832)	(677,246)	(135,816)	(130,101)	(38,846)	(37,916)	(1,286)	(1,289)	(28,694)	(25,617)	(934,475)	(872,170)
Total defined benefits	(729,832)	(677,246)	(135,816)	(130,101)	(38,846)	(37,916)	(1,286)	(1,289)	(28,694)	(25,617)	(934,475)	(872,170)

Figures stated in millions of Colombian pesos

- (1) Includes pension plans of the EPM Group companies in accordance with the regulations of each country. Also, contributions to social security and funeral assistance.
- (2) Includes retroactive severance plans, which consist of a recognition of an average monthly salary multiplied by the years of service, payable through advances and at the time of contract termination. The source of the plan is the "Sixth Law of 1945, by which some provisions are issued on labor conventions, professional associations, collective conflicts and special labor jurisdiction" and the National Decree 1160 of 1989, which partially regulates Law 71 of 1988, which issues rules on pensions and other provisions.
- (3) The benefit for public utilities subsidies is a plan consisting on a total or partial discount on the monthly value to be paid of the public utility of energy, and in some cases in the service of water and telephone, 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. At Electrificadora de Santander S.A. E.S.P., the benefit is granted to former employees whose service at the date of retirement was at least 15 years. The benefit for public utilities is covered by the collective labour agreements in force in these companies.
- (4) Corresponds to the educational assistance that by law is granted to the children of retirees who are economically dependent on it, up to the age of 25.

No risks have been identified for the EPM Group coming from the post-employment benefit plans, nor any amendments, reductions or settlements that impact the present value of the liability.

The weighted average duration, in years, of the defined benefit plan obligations at the cut-off date is as follows:

Benefit	2019		2018	
	Desde	Hasta	Desde	Hasta
Pension	8	12	8	12
Retroactive severances	5	7	5	7
Public utilities assistance	9	12	9	12
Education	5	8	4	4
Other defined benefit plans	2	6	2	6

The Group has no restrictions on the current realization of the defined benefit plan surplus.

The Group did not make any contributions to defined benefits during the period.

The composition of the fair value of plan assets is as follows:

Assets that support the plan	2019		2018	
	Participation %	Fair value	Participation %	Fair value
Cash and cash equivalents	2.47%	7,870	2.39%	8,016
Equity instruments				
Government sector	6.38%	20,326	6.62%	22,233
Total equity instruments	6.38%	20,326	6.62%	22,233
Debt instruments				
AAA	72.32%	230,470	73.59%	247,040
AA	5.31%	16,910	6.21%	20,840
BB and less	0.54%	1,715	0.99%	3,312
Without rating	11.14%	35,514	2.04%	6,857
Investment funds ⁽¹⁾	1.85%	5,880	1.95%	6,538
Total debt instruments	91.15%	290,489	89.30%	284,587
Total assets that support the plan	100%	318,684	99%	314,836

Figures stated in millions of Colombian pesos

- (1) Includes from EPM a conservative profile mutual fund, with immediate availability of resources called *Rental Liquida* (liquid rent), managed by Fiduciaria Davivienda, with a balance of \$1,576 (2018: \$1,522) and an Exchange Trade Fund (ETF), which follows the behavior of Colcap, with a balance of \$4,304 (2018: \$5,016).

The main actuarial assumptions used to determine the obligations under the defined benefit plans are as follows:

Assumptions	Colombia			
	2019		2018	
	From	To	From	To
Discount rate (%)	6.00%	7.20%	5.00%	7.70%
Yearly salary increase rate (%)	4.60%	5.50%	3.50%	5.50%
Real rate of return on plan assets	4.83%	4.83%	3.14%	6.44%
Future yearly pension increase rate	3.25%	3.50%	3.25%	4.00%
Yearly inflation rate (%)	3.25%	3.50%	3.00%	4.00%
Mortality rate tables	Valid Rentiers 2008 Table			

Assumptions	Guatemala			
	2019		2018	
	From	To	From	To
Discount rate (%)	5.80%	5.80%	6.00%	6.10%
Yearly salary increase rate (%)	4.50%	4.50%	4.50%	4.50%
Future yearly pension increase rate	-	-	-	-
Yearly inflation rate (%)	4.00%	4.00%	4.00%	4.00%
Mortality rate tables	RP-2000 Tables			

Assumptions	El Salvador			
	2019		2018	
	From	To	From	To
Discount rate (%)	3.49%	3.49%	4.70%	4.70%
Yearly salary increase rate (%)	1.50%	1.50%	1.50%	1.50%
Future yearly pension increase rate	-	-	-	-
Yearly inflation rate (%)	1.00%	1.00%	1.00%	1.00%
Mortality rate tables	CSO-80 Table			

Assumptions	Panamá			
	2019		2018	
	From	To	From	To
Discount rate (%)	3.31%	3.31%	4.51%	4.75%
Yearly salary increase rate (%)	5.00%	5.00%	5.00%	5.00%
Real rate of return on plan assets	5.25%	5.25%	5.25%	5.25%
Future yearly pension increase rate	-	-	-	-
Yearly inflation rate (%)	0.20%	0.20%	0.20%	0.20%
Mortality rate tables	Republic of Panama Urban Population Mortality Tables 2010-2015			

Assumptions	México			
	2019		2018	
	From	To	From	To
Discount rate (%)	7.60%	7.60%	7.50%	7.50%
Yearly salary increase rate (%)	5.58%	5.58%	5.50%	5.50%
Future yearly pension increase rate	-	-	-	-
Yearly inflation rate (%)	4.00%	4.00%	3.50%	3.50%

Assumptions	Chile			
	2019		2018	
	From	To	From	To
Discount rate (%)	0.66%	0.66%	1.54%	1.54%
Yearly salary increase rate (%)	0.63%	0.63%	0.05%	1.00%
Future yearly pension increase rate	-	-	-	-
Yearly inflation rate (%)	2.43%	2.43%	2.43%	2.43%
Mortality rate tables	CB H 2014 and RV M 2014 Tables			

The following table shows the effect of a variation for more than 1% and less than 1% in salary increase, discount rate and an increase in benefit over the obligation for post-employment defined benefit plans:

Assumptions	Increase in Discount Rate by +1%	Decrease in Discount Rate by -1%	Salary Increase Rise by +1%	Salary Increase Decline by -1%	Benefit Increase Rise by +1%	Benefit Increase Decline by -1%
Pensions	810,872	975,589	-	-	107,887	107,887
Retroactive Severances	129,287	142,771	148,901	123,377	-	-
Public Utilities	34,563	42,465	-	-	42,784	42,784
Other Post-Employment Benefits	126,145	152,457	23,260	20,551	1,223	1,223
Total Post-Employment Benefits	1,100,867	1,313,282	172,161	143,928	151,894	151,894

Figures stated in millions of Colombian pesos

The methods and assumptions used to prepare the sensitivity analysis for the present value of defined Benefit Obligations (DBO) were made using the same methodology that for actuarial calculation as of December 31, 2019 and 2018: Projected Unit of Credit (PUC) Method. Sensitivity does not present neither limitations nor changes in the methods or assumptions used to prepare the current period analysis.

Pension liabilities calculation according to current fiscal requirements in Colombia.

Resolution 037 of 2017 issued by the General Accountancy 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 commutations; therefore, the figures presented below do not correspond to the requirements of IFRS adopted in Colombia.

Pension liabilities

The actuarial calculation of pensions was prepared with the following technical bases:

Actuarial assumptions - Pension obligation	2019	2018
Real technical interest rate	4.80%	4.80%
Salary increase rate	3.91%	5.09%
Pension increase rate	3.91%	5.09%
Mortality rate table	Valid rentiers 2008 table	

The following table is the calculation of Pension Liabilities with the previous parameters:

Description	2019		2018	
	Number of people	Amount of the obligation	Number of people	Amount of the obligation
Personnel pensioned entirely by the company	1,443	351,149	1,480	352,114
Personnel pensioned with amounts shared with Colpensiones (state pension system)	1,989	298,745	1,771	169,403
Personnel benefit shared with Colpensiones	865	103,616	838	85,660
Personnel pensioned with amounts shared with other institutions	397	41,086	323	35,737
Total	4,694	794,596	4,412	642,913

Figures stated in millions of Colombian pesos

Below are Pension Bonds related to Pension Obligations:

Description	2019		2018	
	Number of people	Amount of the reserve	Number of people	Amount of the reserve
Retirement payment type A modality 1	246	2,707	246	2,524
Retirement payment type A modality 2	4,531	195,937	4,542	192,122
Retirement payment type B	3,618	397,976	3,556	383,006
Retirement payment type T	5	277	5	340
Other - Contributions Law 549	178	5,175	178	4,925
Total	8,578	602,072	8,527	582,917

Figures stated in millions of Colombian pesos

Following, the differences between the pension liabilities calculated under IFRS adopted in Colombia and the fiscal pension liabilities are shown:

Description	2019	2018
Pension liabilities	737,837	719,344
Fiscal pension liabilities	1,133,103	1,131,353
Difference	(395,266)	(412,009)

Figures stated in millions of Colombian pesos

Pension commutation liabilities

The actuarial calculation of pension commutation was prepared with the following technical basis:

Actuarial assumptions - Pension commutation	2019	2018
Real technical interest rate	4.80%	4.80%
Salary increase rate	3.91%	5.09%
Pension increase rate	3.91%	5.09%
Mortality rate table	Valid rentiers 2008 table	

The following table is the calculation of the pension commutation with the previous parameters:

Description	2019		2018	
	Number of people	Amount of the obligation	Number of people	Amount of the obligation
Personnel pensioned entirely by the company	92	25,716	109	23,558
Personnel pensioned with amounts shared with Colpensiones	346	44,513	340	42,781
Personnel benefit shared with Colpensiones	37	3,167	34	2,757
Personnel pensioned with amounts shared with other institutions	31	3,693	44	3,576
Total	506	77,089	527	72,672

Figures stated in millions of Colombian pesos

Below are the pension bonuses related to pension commutation liabilities:

Description	2019		2018	
	Number of people	Amount of the reserve	Number of people	Amount of the reserve
Retirement payment type A modality 1	12	38	12	35
Retirement payment type A modality 2	255	10,803	262	10,398
Retirement payment type B	219	21,928	226	21,795
Retirement payment type T	3	84	3	149
Other - Include type of pension bond-	3	115	3	107
Difference	492	32,967	506	32,484

Figures stated in millions of Colombian pesos

Differences between pension commutation liability as calculated under IFRS adopted in Colombia, and the tax pension commutation liability are shown below:

Description	2019	2018
Pension commutation liabilities	90,694	83,240
Fiscal pension commutation liabilities	110,055	105,157
Difference	(19,361)	(21,916)

Figures stated in millions of Colombian pesos

25.1.2. Defined contribution plans

The Group made contributions to defined contribution plans recognised in the results of the period as an expense of \$76,450 (2018: \$21,261), as a cost of \$50,289 (2018: \$47,525) for a total of \$126,739 (2018: \$68,786).

25.2. Long-term employee benefits

Long-term benefits	Seniority premium ⁽¹⁾		Other long-term benefits		Total	
	2019	2018	2019	2018	2019	2018
Current value of liabilities due to other long-term benefits						
Initial balance	90,671	84,008	-	1,644	90,671	85,652
Present service cost	7,982	7,881	-	-	7,982	7,881
Profit (or expenses) due to interests	5,843	5,580	-	-	5,843	5,580
Actuarial profit or loss due to changes in:						
Assumptions by experience	2,794	1,300	-	-	2,794	1,300
Supuestos demográficos	41	(695)	-	-	41	(695)
Financial assumptions	2,105	524	-	-	2,105	524
Past service cost	-	419	-	-	-	419
Effect in foreign exchange translation	5	1,685	-	(1,644)	5	41
Payments made by the plan	(12,468)	(10,030)	-	-	(12,468)	(10,030)
Present value of liabilities at 31 December	96,973	90,671	-	-	96,973	90,671
Long-term benefit deficit	(96,973)	(90,671)	-	-	(96,973)	(90,671)
Long-term net profit liability	(96,973)	(90,671)	-	-	(96,973)	(90,671)

Figures stated in millions of Colombian pesos

- (1) Granted on the basis of the employee's years of service, is recognised and paid in accordance with the terms established in the collective labour agreements in force in each company or the labor regulations of the country.

The Group has not identified any risks generated by the long-term benefit plans, nor any 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	2019		2018	
	From	To	From	To
Seniority premium	6.6	7.1	6.5	6.6
Other long-term benefits	6.6	6.6	7.15	9.7

The Group does not expect to make contributions to the plan for the next year period.

The main actuarial assumptions used to determine the obligations for long-term employee benefit plans are the following:

Assumptions	Colombia		Guatemala	
	2019	2018	2019	2018
Discount rate (%)	6.40%	6.65%	5.90%	6.10%
Yearly salary increase rate (%)	4.85%	4.50%	4.50%	4.50%
Yearly inflation rate (%)	3.50%	3.50%	4.00%	4.00%
Mortality rate tables	Valid rentiers 2008 table		RP-2000 table	

The following table shows the effect of a variation of plus 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 discount rate by +1%	Decrease in discount rate by -1%	Salary increase by +1%	Salary decrease by -1%	Benefit Increase Rise by +1%	Benefit Increase Decline by -1%
seniority premium	88,283	99,769	99,827	88,159	-	-
Other long-term benefits	1,336	1,910	1,909	1,334	-	-
Total long-term benefits	89,619	101,679	101,736	89,493	-	-

Figures stated in millions of Colombian pesos

The methods and assumptions used to prepare the sensitivity analysis for the present value of defined benefit obligations (DBO) were made using the same methodology that for actuarial calculation as of 31 December 2019: Projected Unit of Credit (PUC). The sensitivity does not present neither limitations nor changes in the methods or assumptions used to prepare the current period analysis.

25.3. Short-term employee benefits

The composition of the short-term benefits is as follows:

Short-term benefits	2019	2018
Payroll payable	389	7,059
Severances	48,963	44,733
Interests on severances	6,739	5,793
Vacations	30,300	27,613
Vacations bonus	39,223	35,568
Service bonus	549	459
Holidays (Christmas) bonus	249	248
Bonuses	10,760	13,866
Other bonuses, salaries and legal benefits	10,266	10,809
Total short-term benefits	147,438	146,148

Figures stated 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, contributions and rates	2019	2018
Withholding tax on income and stamp duty	106,121	91,307
Value added tax (VAT)	43,872	34,376
Industry and commerce tax	38,105	38,269
Rates	16,167	15,822
Contributions	11,521	5,517
Taxes, contributions and rates abroad	2,706	2,462
Customs duty and surcharges	1,432	1,127
Royalties and monetary compensations	1,411	611
Other national taxes	730	713
Other municipal taxes	123	702
Valuation tax	97	136
Unified property tax	78	86
National consumption tax	5	5
Audit and audit fee	-	148
Total taxes, contributions and rates	222,368	191,281

Figures stated in millions of Colombian pesos

Note 27. Provisions, contingent assets and liabilities

27.1. Provisions

The reconciliation of provisions is as follows:

Description	Decommissioning and restoring ⁽¹⁾	Onerous contracts	Lawsuits ⁽²⁾	Contingent consideration on business combinations	Warranties ⁽³⁾	Other provisions	Total
Initial balance	85,134	61,051	326,141	153,668	239,115	387,258	1,252,367
Additions	28,555	-	61,322	-	-	66,175	156,052
Uses (-)	(19,449)	(28,084)	(13,519)	(2,179)	(151,401)	(91,786)	(306,418)
Unused amounts reversed (-)	(1,452)	(2,395)	(45,576)	(21,210)	-	(3,157)	(73,789)
Effect due to loss of control	(6,199)	-	-	-	-	-	(6,199)
Adjustment for changes in estimates	36,325	-	(63,758)	152	20,916	(3,483)	(9,846)
Capitalizable decommissioning	47,100	-	-	-	-	-	47,100
Exchange difference	-	-	695	1,309	-	-	2,004
Other changes _Financial expenses_	2,788	1,674	12,056	3,101	-	2,792	22,410
Effect in foreign exchange translation	315	-	(1,541)	-	-	(546)	(1,774)
Final balance	173,117	32,246	275,820	134,841	108,630	357,253	1,081,907
Non-current	95,559	-	82,996	126,509	108,630	78,236	491,930
Current	77,558	32,246	192,824	8,332	-	279,017	589,977
Total	173,117	32,246	275,820	134,841	108,630	357,253	1,081,907

Figures stated in millions of Colombian pesos

As at 31 December 2019, the significant behavior of the Group's provisions is:

- (1) Increase of \$87,983 originated by the recording of the mandatory or environmental affectation provisions to the investment projects undertook at the request of the National Environmental License Authority -ANLA, mainly in the companies ESSA and EPM. Additionally, EPM created the provision for the dismantling of the Jepírachi Wind Farm.
- (2) Decrease of \$50,321 in lawsuit for the updating of estimated value of some labor claims received by EPM from EADE in December 2019.
- (3) Decrease of \$130,485 for the payment of the guarantee covering construction and commissioning of the Ituango Hydroelectric project, according to Standby Letter of Credit No. 04156826 issued by BNP Paribas Bank.

27.1.1 Decommissioning or restoring

The Group is obliged to incur costs for decommissioning or restoring its facilities and assets, in the following events:

- Recall of transformers containing PCBs (Polychlorinated Biphenyls). The Group has committed to the decommissioning of these assets from 2014 to 2026, covered by Resolution 222 of 15 December 2011 of the Ministry of Environment and Sustainable Development and the Stockholm Convention of 22 May 2008. Applies in Colombia, Panama and El Salvador. The provision is recognised at the present value of the expected costs to settle the obligation using estimated cash flows. The main assumptions considered in the calculation of the provision are estimated costs, CPI and fixed rate TES. As at 31 December 2019, the national subsidiaries that contribute to this item are ESSA with \$1,984, CENS with \$392, CHEC with \$366, EPM with \$289 and EDEQ with \$252 and the international subsidiaries that contribute are ENSA with \$584 and DELSUR with \$3,897.
- Solid waste management utility in Colombia, for the disposal of solid waste by the subsidiary EMVARIAS requires land on which cells or vessels are built for the deposit of solid waste, a landfill, being necessary to restore it through a series of activities aimed at making its closure, decommissioning and post-closure. The obligation begins from the moment the landfill is in optimal conditions for the final disposal activity and goes until the environmental regulatory body, by means of a resolution, decrees the completion of the closure, decommissioning and post-closure stage. This obligation is defined in the RAS 2000 (Technical Regulations on Drinking Water and Basic Sanitation), which establishes the basic criteria and minimum environmental requirements that solid waste management systems must meet in order to mitigate and minimize the impacts of design, construction, commissioning, operation, maintenance, decommissioning, completion, and closure activities. As at 31 December 2019, this item ended at \$20,626.
- Decommissioning 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), approves the environmental component of the plan to close the coal mines of the mining title and for this purpose, contracts are carried out for construction of various civil works, urban planning and monitoring in the coal mines of the mining title, code RPP 434 of the area of Amagá. In 2019, the company reached the final stage of the actions contemplated in the above-mentioned resolution, thus no payment was made for this provision since it was decided not to continue provisioning this concept, given the possibility of selling the title through the subsidiary PROMOBILIARIA; this matter was taken to the Board of Directors of EPM and approved on 16 December 2019. For this reason, it was not considered for future budgets and the provision was cancelled.

- Decommissioning of the Jepírachi wind farm located in the department of La Guajira, in the towns of Cabo de la Vela and Puerto Bolívar in Colombia, due to non-compliance with the technical standard issued by resolution CREG 060 of 2019, it is determined that the Jepírachi wind farm must be removed from the National Interconnected System and the respective decommissioning must be performed. The main assumptions considered in the calculation of the provision are estimated costs, CPI and TES fixed rate. As of 31 December 2019, the provision was recorded for \$8,722.
- In EPM, provision for environmental impact in the construction of infrastructure projects: this 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, affectation of prohibited species and forest use; obligations that are formalized through resolutions of the ANLA (National Environmental Licensing Authority), CAR - Regional Autonomous Corporation and / or MADS - Ministry of Environment and Sustainable Development. The execution of the biotic environmental compensations of the project extends beyond the time in which the asset begins to operate technically, being necessary to implement the figure of the provision with the intention that these expenditures remain as greater value of the construction in course. The Group has committed to compensate 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 ANLA, 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 21/04/2014 CVS, among others. The provision is recognised for the present value of the expected costs to settle the obligation using estimated cash flows. The main assumptions considered in the calculation of the provision are estimated costs, CPI and TES fixed rate. As of December 31, 2019, the main subsidiaries contributing to this concept are EPM with \$11,965, ESSA with \$7,128 and CENS with \$206.
- Environmental compensation and compulsory investment of 1%: Law 99 of 1993, established the mandatory nature of environmental licensing for the development of any activity that could cause serious damage to renewable natural resources or the environment, or introduce considerable or noticeable modifications to the landscape and depending on the type of activity, the size and location of the project, and assigned the powers in relation to environmental licensing to the National Environmental Licensing Authority, the Regional Autonomous Corporations, or the metropolitan areas.

Article 321 of Law 1955 of 2019 indicates that all holders of an environmental license who have investments pending as of 25 May 2019 may benefit from the percentage increase in the value of the liquidation basis of the compulsory investment of not less than 1%, according to the year of commencement of activities authorized in the environmental license and defined the requirements and procedures to update pending investments and benefit from new terms of execution subject to the approval of the ANLA.

As of 31 December 2019, the EPM Group has obligations of this type amounting to \$61,850 related to the use of water taken directly from natural sources in the current projects in La Sierra, Porce II, Porce III and Hidroituango. In accordance with the law, the executed values of 1% are Porce II for \$4,525, Porce III for \$9,755, La Sierra for \$470 and Hidroituango for \$47,100.

Additionally, as of 31 December 2019, EPM includes a provision of \$54,854 for environmental contingencies, established by the specific action plan for the recovery of the parties affected by the events of the occluding of the Cauca River diversion tunnel at the Hidroituango project on 28 April 2018; by the closing of floodgates in 2019 that reduced the flow of the river downstream of the project; and by the events that may arise from the pending technical milestones to be reached, typical of the contingency, as well as from the execution of the project itself.

The specific action plan for recovery should consider three framework programs:

- a. Recovery of affected bogs
- b. Recovery of affected fish fauna

c. Re-establishment of the aquatic habitats located in the affected area

These three programs correspond to the environmental component as a response to the identifying of the caused damage, as well as the discretionary actions. Also included are social programs, economic activities, infrastructure, and risk management, among others.

The different actions are to be developed between the municipalities of Valdivia to Nechí, however, if they are identified in the municipalities that are part of La Mojana, will also be the subject of intervention.

27.1.2 Onerous Contracts

As of 31 December 2018, \$32,246 have been recognised by the Group for the contract of fuel supply and transportation signed between EPM and TGI-Transportadora de Gas Internacional 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 main assumptions considered for calculating the provision are the costs associated to the contract with the conditions stated each quarter, utilization factor or suspension of payments for contract maintenance, LIBOR rate, fixed rate in Colombian pesos TES, MRR for the quarter and macroeconomic environment.

The main assumptions used for future events are to maintain the following assumptions in 2020: Suspension of the contract for 30 days every year and its benefit rights for 15 days each year for generation of the Termosierra plant and the rest of the time would be paid without using the contract (only fixed costs).

27.1.3 Lawsuits

This provision covers the estimated probable losses related to labour, administrative, civil and tax lawsuits arising in the operations of the companies of the Group. The main assumptions considered for calculating the provision are: Average CPI to actual data in previous years and projected data in future years, fixed rate TES in Colombian pesos to discount, estimated value to be paid, and the estimated payment date for those lawsuits rated as probable. As of today, no future events have been foreseen that may affect the calculation of the provision.

In order to minimize the uncertainty that may arise regarding estimated dates of payment and values to be paid in a lawsuit rated as probable, the companies of the Group that operate in Colombia uses business rules based on statistic studies to obtain the average length of processes per action as well as case law to estimate the maximum amounts the law 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 tax processes

Type of legal action or procedure	Average length (in years)
Abbreviated	4
Petition for compliance	4
Group action	6
Representative actions	4
Conciliation (pre-trial)	2
Partie civile proceedings	4
Contractual (Breach of contract)	13
Survey and demarcation	5
Executive	5
Singular executive	3
Expropriation	4
Comprehensive reparation incident (criminal)	2
Imposition of easements	4
Nullification of administrative acts	5
Nullification and reinstatement of rights	10
Nullification and reinstatement of labour rights	11
Ordinary	7
Ordinary of membership	5
Accusatorial criminal (Law 906 of 2004)	4
Division's lawsuit	4
Protection of consumer rights	6
Police Grievance	3
Right to reclaim	7
Direct compensation	12
Oral	5

Labor processes

Type of legal action or procedure	Average length (in years)
Labor Solidarity	3.5
Pension	3.5
Extra hours	3.5
Job reinstatement	4
Salary scale equalization	3.5
Unfair dismissal compensation	3.5
Reassessment of social benefits	3.5
Compensation work accident	4
Refund of the health/pension contribution	4

Application of case law

Typology: the values of claims for compensation of extra-patrimonial damages will be recorded according to the following typology:

- Non-material damage.
- Damage to health (physiological or biological damage), from a physical or psychophysical injury.
- Damage to relationship life.
- Damage to constitutional and conventional property.

The values of other extra-matrimonial claims not recognised by the jurisprudence will not be recorded, unless it can be inferred from the claim that, despite its name, it corresponds to one of the accepted typologies. Nor shall claims for extra-patrimonial compensation for damage to property be recorded.

Quantification: The amounts of extra-patrimonial damage claims will be recorded uniformly as follows, regardless of its typology:

Direct victim compensation	100 Monthly Minimum Legal Wage Enforced (MMLWE)
Indirect victim compensation	50 Monthly Minimum Legal Wage Enforced (MMLWE)

- **For subsidiaries in Chile:** With regard to the probable payment date of the trials, the type of process and the previous cases are taken into consideration. In this sense, the labor process, being oral and only two hearings, has a maximum duration of six months, except in specific cases where there are problems in notifying the lawsuit. In civil processes since are lengthy processes and the instances available may take at least two years, the estimated time for the lawsuits currently being processed by the subsidiary Aguas de Antofagasta S.A., considering their state of progress, should be until 2019.

Amounts: to determine the amount of the judgments, first the amount of the claim by the plaintiff is considered, for applying case law in that regard is unfeasible, the amounts will vary depending on the Court and the cause to ask.

Additionally, in civil trials, the amounts of the indemnities will depend on the court that dictates it, given that Chile possesses no case-law-system. What a civil judge cannot do and less the appellate and supreme court, is to confer figures greater than plaintiffs' demands.

- **For subsidiaries in Panama:** regarding the estimated date of payment, each case is evaluated in a particular way with external legal advisors, for which the average duration of similar processes is taken into consideration.

Amounts: estimated amounts to pay for a lawsuit is determined based on the amount of the plaintiff claim and an analysis of the specific condition that motivates the claim in order to determine the recognition of a possible loss. For this we use the appreciation of external legal advisors of each company and in certain cases with the support of insurance advisors in case of requiring an actuarial valuation.

- **For subsidiaries in El Salvador:** the estimated date of payment for administrative or judicial proceedings is assessed based on the average length for the resolution of similar processes, obtained from statistical data over the 20 years of operation of the subsidiaries.

Amounts: estimate amounts of lawsuits are determined based on the amount of the initial claim filed against the company.

Detail for each type of process is as follows:

Company	Third party (Plaintiff)	Complaint	Amount
EPM	Oscar Elías Arboleda Lopera	Solidarity. The shareholders claim to have worked for Empresa Antioqueña de Energía S.A. E.S.P., performing different tasks, all of the plaintiffs worked for more than 10 years; they state that upon the dissolution and liquidation of said company there was a substitution of employers with Empresas Públicas de Medellín E.S.P., since it carried out the same activities without continuity, was the owner of all of EADE upon its liquidation and was obliged to all labor claims. In total, there are 173 plaintiffs.	102,190
	Dragados Porce II Consortium	To pay the plaintiffs, among others, the sums of money resulting from the return of all the compensation illegally deducted by EPM in the hiring process No. CD002376.	28,006
	Misc. Labour	Other proceedings for amounts less than \$1,036.	12,411
	Misc. Administratives	Other proceedings for amounts less than \$1,070.	10,524
	Fiduciaria Colpatria S.A.	Issue a payment order against EPM and in favor of Fiduciaria Colpatria S.A. acting as spokesperson for Patrimonio Autónomo FC - Enertotal.	6,077
	Municipio de Yumbo (Valle)	Industry and commerce and its complementary notices and boards and public lighting.	4,756
	John Walter Jaramillo	That the dismissal be declared null and void, with the respective salaries and increases, the social benefits during all the time that they remain untied; in the same way it will be on behalf of the claiming party the contributions to the social security until it is effectively reintegrated.	4,153
	Dragados Porce II Consortium	That EPM be ordered to recognise and pay the amount of the damages caused in the good name of the companies that constituted the CONSORTIUM DRAGADOS CONCRETO PORCE II.	4,107
	Oliver Antonio Aguirre Soto	That the nullity of the conciliation act signed due to a defect in the consent is decreed and consequently, the reestablishment of the work contract, the reimbursement, the payment of all the salaries and benefits not received, in the same way that the contributions to the social security are cancelled from the moment of the dismissal and until the moment when the plaintiff is effectively reimbursed.	3,165
	Temporary Union Energía Solar S.A. and Estructuras Arbi Ltda.	Declare that the tender submitted by the applicants to the tender No ES-2043-GI called by EPM was legally capable of being taken into account at the time of the award of the respective contract under tender No ES-2043-GI	1,922
	Construcciones Pico y Pala Ltda.	The decisions of EPM 95070 of 5 April 1999, by which contract 1/DJ-682/15 concluded between EPM and Consorcio Trainco S.A. was unilaterally terminated, and the decision of EPM 113701 of 15 March 2000, by which the appeal for reversal of decision 95070 of 5 April 1999 was dismissed, are invalid.	1,838

	Humberto Hernando Gómez Franco	Declare EPM administratively and patrimonially responsible for the injuries suffered by Mr. HUMBERTO HENANDO GOMEZ FRANCO, when he was electrocuted by high voltage cables owned by the defendant entity, on 23/10/2013, in the property of Mr. Antonio Lopera, located in the sector of La Virgen, in the Vereda Hoyorrico jurisdiction of the Municipality of Santa Rosa de Osos.	1,651
	Francisco Javier Muñoz Usman	That the nullity of the conciliation act signed due to a defect in the consent is decreed and consequently the reestablishment of the work contract, the reimbursement, the payment of all the salaries and benefits left to be received, in the same way that the contributions to the social security are cancelled from the moment of the dismissal and until when the actor is effectively reintegrated.	1,620
	Misc. Tax	Other tax proceedings with an amount less than \$4,756.	1,286
	Carlos Olimpo Cardona	That the plaintiffs be reinstated to the same position or office or another of equal or superior category that they had been performing, which as a consequence, by way of compensation, all the salaries and legal social benefits ceased to be received must be cancelled, in addition to all the contributions caused in favor of the Integral Social Security System.	1,283
	Accesorios y Sistemas S.A.	Declare the nullity of resolution 3077 of 12/11/200, issued by the General Manager of EPM, by which it was resolved to declare the realization of the quality risk and correct operation of the vehicles subject to contract 090321557.	1,207
	TRAINCO S.A.	Declare null and void resolutions 161052 of 03/05/2001, issued by EPM, by means of which contract 2101870 concluded between EPM and Trainco S.A. and 178702 of 06/07/2001 were unilaterally settled.	1,070
	Omar Augusto Lugo Hoyos	Decree the nullity of the conciliation act signed due to a defect in the consent and consequently order the reinstatement of the employment contract, the reimbursement, the payment of all the salaries and benefits not received, in the same way that the contributions to the social security are cancelled from the moment of the dismissal and until the actor is effectively reintegrated.	1,036
	Dragados Porce II Consortium	Record difference in exchange Account 271005 Litigation No. 14000857	210
	Payments	Labour processes that have been partially cancelled, in 2019, and are still not finished for \$740.	-740
Total EPM			187,772
DECAII	Tax management	Tax Adjustment lawsuit	27,936
Total DECAII			27,936
CHEC	Claudia Viviana Morales and others	Moral and material damages	6,557

Jairo Castaño Hoyos and others	Profit Cessation/Material-Moral Damage	4,926
José Fernando Arango and others	Permanent per diem - social security contributions	3,285
Cartones Y Papeles Del Risaralda S.A.	Repair and payment of material damage	2,071
Andrés Mauricio Alzate Benjumea and others	Reinstatement of office, reinstatement of social benefits and moratoriums	790
Ingeniería y Desarrollo Ltda and others	Emerging Damage	633
Aleyda Del Socorro Giraldo	Workplace accident, moral damage	450
Hernando De Jesús Ocampo Jiménez	Contract reality	437
Diego Hernando Grajales and others	Trade Union Jurisdiction	396
Alba Lucía Saldarriaga Toro	Salary and performance adjustment	353
María Noralba Flórez Arias	Payment 100% pension allowance	352
Gustavo Uribe Jaramillo and others	Reliquidation of pension	347
Zoe Ospina De Gómez and others	Pension Replacement	330
Camilo Donado Barcelo	Termination Without Just Cause - Refund	316
Mario Romero Londoño	Employer's fault - work accident	177
Ana María Londoño and others	14 Wage Premium (Mesada 14)	135
Jairo Antonio Amariles Marulanda	Public Excuses and Compensation Payments	126
Jhon James Henao Alzate	Reimbursement and payment of lost wages	80
María Isabel Hurtado De Gómez	Recognition and payment of pension and retroactive replacement	49
María Noralba Flórez	Consider qualifying for a survivor's pension	39
Francisco Fernando Sánchez Hincapié	Material damages/ Moral damages	32
José Aldover Cardona Sánchez	Reimbursement - Compensation for unfair dismissal	31
Angelmira Garcés Candamil	Compensation for property damage	26
Hernán De Jesús Marín Salgado	Part of the pension	5
Total CHEC		21,943

CENS	Elsa Reyes De Buitrago	Recognise and pay the differences that derive from the mathematical operation to obtain the indexation of the first pensionable month, in their condition of pensioners and/or pensioner substitutes to the totality of the plaintiffs	2,291
	Jesús Efraín Ibarra Ochoa	Declare that the retirement pension recognised by CENS is compatible with the old-age pension recognised by the ISS Pensiones, now Colpensiones	1,088
	William Alexis Ramírez	cease payment of public lighting to the municipality of Cúcuta, repayment of public lighting balances to the municipality, payment of contractual and non-contractual damages Claim: \$928,023,004.78 Incentive: 15% of the value recovered by the Municipality.	1,074
	Carmen Alicia Rodríguez	That the differences derived from the mathematical operation tending to obtain the indexation of the first pensionable month, in their condition of pensioners and/or pension substitutes, be recognised and paid to the totality of the shareholders.	926
	José Francisco Arango Bautista	Material damages/moral damages/life damages in relation.	759
	Hayber Humberto Bermúdez Peñaloza	Moral damage to the injured party /Health damage. /Damage to conventional and constitutionally protected goods or rights. /Moral damage for the injured party's child. /Damage to conventional goods or rights for the child/moral damage in favour of the parents. /Damage to conventional goods or rights of the parents.	736
	Ermelina Pérez De Rivera	That it is declared that CENS has the obligation to continue to pay the totality of the contributions to health as an acquired right in favour of the actors and consequently it is ordered to continue to pay 12% on the pension allowance as a legally acquired right in accordance with the collective agreement in force at the time of retirement.	676
	Carlos Omar Rincón Carrillo	The lawsuit claims the recognition and payment of the transportation assistance discounted by the contractor, expenses assumed for the maintenance of the work tools, social benefits, layoffs and the interest thereon, vacations, service premium, and the moratorium compensation referred to in Article 99 of Law 50 of 1990.	655
	Other labour lawsuits, with amounts less than \$100 million	Other labor processes (13) with an amount less than \$100 million.	551
	Yesid Jaimes	Declare that the applicants have the right, throughout their lives, to have their pensions adjusted in accordance with the parameters indicated in Article 1 of Law 71 of 1988 and not in accordance with those established in Article 14 of Law 100 of 1993, order CENS to pay the applicants retroactively	542
	Carmen Rosa Galvis Urbina	declare CENS and the Temporary Union Engineering and Services to be non-contractually liable for the damage caused to the applicant by the death of	470

	Freddy Diaz /Moral damages/ consolidated and future material damages.	
Alexander Pineda Riobo	Claim for assistance of transportation for workers of a contractor company and failure to provide assistance for layoffs and failure to pay social benefits /\$374,619,803	379
Ana Victoria Rivera Mantilla	Refund of 12% pensioner health contributions // According to the lawsuit, this is more than 50 times the monthly minimum wage for each of the plaintiffs // The provision corresponds to the following value: According to the lawsuit, this is more than \$312,496,800	318
Bersaline Ortiz Llanez	It demands that the loss of the possibility of carrying out "other virtual activities be repaired, which, although they do not produce a financial return, make existence pleasant". To determine these values of PHYSIOLOGICAL DAMAGE	301
Mercedes Quintero Muñoz	That the differences derived from the mathematical operation to obtain the indexation of the first pensionable month be recognised and paid, likewise CENS is condemned to cancel the interests at the legal maximum.	253
José Herlin Velandia Rojas	They request recognition of the conventional benefits of Articles 20, 21, 26 and 36 in the same way as the workers who joined the company as employees before 1 February 2004, the moratorium compensation of Article 99 of Law 50 of 1990, costs, indexation and extra and ultra petita.	199
Melba Sofia Nieto	It requests the recognition and payment of the pension readjustment enshrined in article 116 of Law 6 of 1992 and its regulatory decree 2108 of the same year, the payment of the differences that exist in the value of their pension according to the readjustment claimed that has been caused since January 1, 1993.	196
Richard Arcenio Rodríguez Camargo	Declare that the applicants' time of service as a SENA trainee in CENS will be taken into account for all purposes with the date on which they began as indefinite-term contract workers in accordance with the provisions of the Collective Labour Convention.	195
Luis Horacio Duran Villaruel	It requests that CENS S.A. E.S.P. pay the plaintiff the money that, according to the plaintiff, was illegally deducted from his paycheck, for salaries and social benefits caused in the period between August 18, 2009 and the date of his retirement from the company.	184
Hernando Duarte Silva	He requests that the ISS (now COLPENSIONES) be ordered to recognise and pay the old-age pension compatible with the retirement pension recognised by CENS S.A. E.S.P. and, as a result, order the reinstatement of the old-age pension in accordance with the provisions of Article 20 of Agreement 049 of 1990, with default interest under Article 141 of Law 100 of 1993.	175

	Leidy Lorena Rincón Ramírez	The lawsuit claims the recognition and payment of the transport aid discounted by the contractor, other discounted values, social benefits, layoffs and the interest on them, holidays, service premium, compensation for the moratorium referred to in Article 99 of Law 50 of 1990.	168
	Elda Beatriz Villamizar Vivas	Order CENS to cancel the health contributions consisting of 12% of the value of the pensionable month of all the shareholders and to re-settle the pension consisting of the 14 months per year, from the moment in which this 12% has been discounted to date with the inclusion of the percentage factor included in the pension, as well as to reimburse the health contributions discounted to the shareholders in the amount of 12%.	166
	José Javier Velandia	That Cens and Comyconta be declared administratively and extra-contractually liable for the damages caused by the disqualification of Mr. José Velandia/failure to work/Moral damages, for the pain suffered by Mr. José Velandia when he lost his job, since he worked for 17 years as an installation and measuring technician.	162
	Jesús David Osorio Vega	They request recognition of the conventional benefits of articles 20, 21, 26, 36 in the same way as the workers who entered the company as workers before February 1, 2004, the compensation for the moratorium of article 99 of Law 50 of 1990, costs, indexation and extra and ultra petita.	159
	Jhonatan Marciano Acevedo Lombana	Declare that the time spent by the applicants as SENA apprentices in CENS will be taken into account for all purposes with the date on which they started as indefinite-term contract workers in accordance with the provisions of the Collective Labour Convention	156
	Jaime David Quintana Rancruel	The lawsuit claims recognition and payment of the transportation assistance discounted by the contractor, expenses assumed for maintenance of the work tools, social benefits, layoffs and the interest thereon, vacations, service premium, compensation for the moratorium referred to in article 99 of Law 50 of 1990.	143
	Sociedad Palmas la Llana SAS	Declare Cens civilly responsible in the modality of extra-contractual civil liability for damages of various kinds / emergent damage / lost profits / moral damage.	125
Total CENS			13,044
Aguas de Antofagasta S.A.	12.050/272 Marítima	Gobernación 45.000 PESOS	1,287
	12.050/201 Marítima	Gobernación 45.000 PESOS	1,285
	Sanctioning file SISS N° 4265-2019	300 UTA	765
	Sanctioning file SISS N° 4416-2019	200 UTA	514

	Sanctioning file SISS N° 4259-2019	200 UTA	510
	Sanctioning file SISS N° 4209-2018	172 UTA	455
	16901/18-7 Morales and others with ADASA and others.	M\$100.000.-	428
	T-403-2019 Concha con Ezentis Chile and Others	Other proceedings for amounts less than \$84 million	315
	O-1512-2018 González con Omar Muñoz, Iteck, DERL and ADASA.	M\$72.166.-	308
	Sanctioning file SISS N° 4408-2019	120 UTA	306
	Sanctioning file SISS N° 4223-2019	100 UTA	255
	Sanctioning file SISS N° 4222-2018	100 UTA	255
	Sanctioning file SISS N° 4172-2018	80 UTA	204
	O-993-2018 Servicios Tirreno de Aguas Antofagasta	M\$30.000.-	128
	Sanctioning file SISS N° 4400-2018	50 UTA	127
Total Aguas de Antofagasta S.A.			7,143
ESSA	Franquelina Ortiz Cruz y Otros	Other proceedings for amounts less than \$188 million	1,265
	Luis Antonio Manrique Hernández	Claim for full and ordinary compensation for material damages in respect of the consolidated loss of earnings arising from the occupational accident	592
	Gerardo Vargas Barón	Claim for a disability pension of common origin for the following aspects.	455
	Gloria Edilse Gámez	Claim for death of Mr. Omar Méndez Lozano and an order for payment of moral and material damages	443
	Osmel Rodríguez	Workplace accident claim	403
	Mary Consuelo Abaunza Salazar	The ELECTRIFICADORA DE SANTANDER ESSA is condemned to respond patrimonially by solidarity with the contractor Javier Sánchez Gómez to the payment of the patrimonial and extra patrimonial damages owed because of the death of the worker Arley David Ospina Abaunza who loses his life in a work accident due to the conditions exposed in the facts.	389

Martha Cecilia Rodríguez Ardila	The applicants request that ESSA be declared liable for all the damages caused to the applicants as a result of the events in which Mr Hugo Feliz Duarte Rojas died. 1000 grams of gold, in events that occurred on January 9, 1991.	374	
Diana Rocío Rivera Galeano and Others	Declare that the work accident in which Mr. Juan Alberto Granados Ramírez lost his life occurred through the proven fault of his employer. That it be declared that ELECTRIFICADORA DE SANTANDER is jointly and severally liable with the employer for the value of the compensation to which the legitimate successors, such as his daughter and his surviving permanent companion, are entitled.	358	
Ana Aydee Prada Ochoa	Payment of Compensation for the death of Mr. Alirio Silva Pimiento in a work accident in the Municipality of San Joaquin, due to a power failure.	337	
Ana Mides Díaz Palacio	That the defendants PROING and ESSA be jointly and severally ordered to recognise and pay total and ordinary compensation for material damages in respect of consolidated and future loss of earnings, for objective and subjective moral damages and damages in relation to and life claimed in this lawsuit as a result of the work accident in which worker Pedro Nel Díaz Díaz lost his life.	333	
Carolina Herrera De Ortiz	Workplace accident claim	301	
Gabriel Antonio Villegas Murcia	Declare that between Gabriel Antonio Villegas Murcia and FUREL S.A. there existed an individual contract of employment for an indefinite period, in verbal form, within the time limits from 5 November 2011 to 15 July 2014 Declare that Mr. Gabriel Antonio Villegas Murcia suffered an accident at work on November 29, 2011, while carrying out his duties as a moto liner, in the execution of activities for the defendant.	298	
Jorge Eliseo Chaparro Murcia	Declare that ESSA is administratively responsible for the death of Ernesto Chaparro Uruña as a result of an electric shock and consequently order the payment of 100 minimum wages to each of the applicants	280	
Carlos Eduardo Solano	declare that ESSA is administratively liable for the damage caused to the applicants as a result of the death of Mauricio Solano Camacho and pay the applicants moral and material damages	262	
María 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 extra contractually liable for the damages caused to the plaintiff as a result of the indiscriminate felling of trees that caused erosion on the property owned by my attorney-in-fact, and invasion of private property.	240	
Samuel Prada Cordero	Lost profit/emerging damage	210	
Total ESSA		6,540	
EMVARIAS	ORLANDO ALFONSO DUQUE ZULUAGA Y OTROS	CONTRACT REALITY different from the contractors' issue	2,254

	LIZ NORMA BEDOYA MOLINA	SALARY LEVELING REQUEST	470
	LUZ DARY GARCIA ORTEGA // JHOANA MARIA RIVERA	SURVIVOR'S PENSION	104
	LUZ MARINA MOLINA PULGARIN AND OTHERS	Pension - sanction	61
	LUZ MARLENY ROJO ZAPATA	RETIREMENT PENSION	49
	JESUS ANTONIO MURILLO	SUBSTITUTE COMPENSATION OR RETURN OF BALANCES	49
	MIGUEL ANGEL BERMUDEZ ROLDAN	LABOUR RESPONSIBILITY FOR SOLIDARITY WITH COOMULTREVV	45
	NORMA LUCÍA AGUDELO SÁNCHEZ	PENSION REPLACEMENT	31
	ANTONIO ESTRADA TAPIAS	APPLICATION FOR CONVENTIONAL RETIREMENT PENSION	31
	LUZ FABIOLA ARBOLEDA	RESTORATION OF COMPENSATION (pension bond paid by Emvarias)	26
	ALVARO ANTONIO SANCHEZ ALVAREZ	LABOR SOLIDARITY	24
Total EMVARIAS			3,145
Aguas Nacionales	Jesús Enrique Acevedo Ruiz	Warranty call: Contract reality. Payment of legal and extralegal salaries and social security benefits, legal compensation and moratoriums, monetary correction, extra and ultra petita sentence and payment of procedural costs.	1,589
	Alberto Guerrero Castro	Reimbursement of salaries, benefits and social security, compensation for moratorium	483
	Antonio José Lopera Jaramillo	Solidarity, Payment of salaries, benefits and social security, compensation moratorium for unjustified dismissal	292
	Fray Noe Betancurt Taborda	Solidarity, compensation for job stability reinforced by health, compensation law 361 of 1997 and compensation moratorium, payment of social benefits	145
	Rodrigo Cuervo Duque	AGUAS NACIONALES EPM S.A. E.S.P. is declared jointly and severally liable for salaries, social benefits, compensation for unfair dismissal and compensation for dismissal of a sick worker (Law 361 of 1997), in terms of job stability reinforced by health.	40
	Natalia López Montoya	The existence of the employment relationship, payment of salaries, social benefits, compensation, moratorium sanction of Article 65 CST is declared.	20
Total Aguas Nacionales			2,570
ENSA	Aristides Contreras and others	Civil procedure - residents of Tuscany	967
	ASEP	Civil lawsuit against Res.12581	492
	Oswald Dall Amico and others VS M&D and ENSA	Lawsuit against ENSA for solidarity in the payment of acquired rights	406

	Electrical Technology	Civil process - unilateral discount to your invoices	20
Total ENSA			1,884
EDEQ	Willson Grisales Henao and Others	Declaration of employer's liability in the work accident suffered by Mr. Wilson Grisales Henao in events that occurred on October 17, 2012 while performing electrical work on the farm the mountain path Peking municipality of Quimbaya by the contractor of EDEQ INGELEL S.A.S, therefore.	1,432
	Elena Ríos mesa	That the Administrative Act contained in the Business Decision, through which some discharges are answered, issued by LA EMPRESA DE ENERGÍA DEL QUINDÍO S.A E.S.P signed by ENITH VILLEGAS BOTERO, leader of the customer service team, is void. As a consequence of the above, the right to my power of attorney is restored by THE EDEQ QUINDÍO ENERGY COMPANY and THE SUPERINTENDENCE OF HOME PUBLIC SERVICES.	20
Total EDEQ			1,452
EMPRIO	EMPRIO PPA	EMPRIO PPA	1,195
Total EMPRIO			1,195
DEL SUR	SIGET	Claim for bad tax classification	570
	TV RED, S.A. de C.V. AND OTHERS	Other proceedings for amounts less than \$67 million	238
	Various employees	Claiming employee benefits	219
	Inversiones Tunari, S.A de C.V.	Claiming damaged equipment	129
Total DELSUR			1,157
AGURAB	HLB FAST & ABS AUDITORES LTDA.	Direct Repair requesting that the Regional Office of Occidente S.A. E.S.P. of the patrimonial damage caused to the shareholder by the omission in payment for services rendered up to September 2010 order the payment of default interest.	36
Total AGURAB			36
Total recognised lawsuits			275,819

Figures stated in millions of Colombian pesos

27.1.4 Contingent consideration - on business combination

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 31 December 2019 amounted to \$117,724 and \$17,117, respectively, for a total provision in the Group of \$134,841.

The main assumptions considered in the calculation of the contingent consideration related to the acquisition of Espiritu Santo are: the estimated date of occurrence of the milestones associated with the contingent payment, the associated probability of occurrence and additionally, the discount of the payment flows was considered by applying a discount rate (LIBOR rate) in accordance with the risk of the liability. To date, no future events that could affect the calculation of the provision have been evidenced.

The main assumption used in the future events of the contingent consideration related to the acquisition of EMVARIAS are: ongoing lawsuits against EMVARIAS at the date of the transaction, definition of the year of materialization of each lawsuit, definition of the related amount to each of the disputes, estimate of

future contingent outlays related to the estimated lawsuits for each year and discount rate (TES fixed rate) to discount future contingent expense flows. To date, there have been no future events that could affect the calculation of the provision.

27.1.5 Warranties

In December 2018, the Group at the head of EPM created a provision for warranties with an amount of \$107,797 (approximately USD 3.5 million per month) which covered the default that would be incurred from January to October 2021, to the Intercolombia carrier for the months after the entry into operation of the infrastructure connection of the Ituango project. The balance of this item as of December 31, 2019 is \$108,630.

Additionally, the provision for warranty of the reliability charge No. 10090002278 to cover the construction and commissioning of the Ituango Hydroelectric Power Plant, had payments in 2019 in the amount of \$151,401 ending with a zero balance as of December 31, 2019.

27.1.6 Other provisions

The Group's subsidiaries that contribute to other provisions are:

EPM in Colombia: includes the detail of the following provisions: a) for events focused on the quality of life of employees and their families, such as: employer policy, multiplier points, *Somos* program, technical reserve and provision for high cost and catastrophic illness; b) provisions regarding environmental sanctioning procedures and sanctions imposed by the competent authorities; c) provisions related to the contingency of the Hidroituango project.

The main assumptions considered for the calculation of each type of provisions are:

Employer policy: Awarded to EPM workers as an extralegal benefit. The main assumptions considered in the calculation for each type of provision are fixed rate TES discount rate, estimated value to be paid and estimated date of payment. To date, no future events that could affect the calculation of the provision have been evidenced. The balance of the provision as of December 31, 2019 amounts to \$5,293.

Multiplier points: granted to workers in EPM. The points obtained during the year must be recognised at the request of the interested party or by decision of the Human Talent Development Directorate each time there is accounting closure of the term and must be paid through the payroll. The value of each point is equivalent to 1% of the SMMLV and should not be accumulated from one year to another. The provision balance as of 31 December 2019 amounts to \$12.

Somos Program: works under the point accumulation modality. According to the behavior of the statistics the points are counted with a probability of 80% of redemption. The balance of the provision as of 31 December 2019 amounts to \$-67.

Technical reserve: The basis for calculating the reserve is that corresponding to all service authorisations issued and which on the cut-off date have not been redeemed, except those corresponding to authorisations with more than twelve months of issue or those which, at least four months after they have been issued, are known not to have been used. The balance of the provision as of 31 December 2019 amounts to \$7,511.

High cost and catastrophic illness: The basis for calculating this provision is that corresponding to the analysis of the entire population of members and beneficiaries of the Adapted Health Entity (EAS) of EPM, who suffer from any of the authorized pathologies. The balance of the provision as of 31 December 2019 amounts to \$20,456.

For the other provisions described, the main assumptions considered in the measurement are estimated life expectancy, estimated payment date, estimated payment value, discount rate calculated with reference to market yields of bonds issued by the National Government.

Environmental sanctioning procedure: Corresponds to sanctions imposed on EPM for not implementing environmental management measures for the execution of works or executing them without the respective authorization or modification of the environmental license. As of December 2019, there is a record of \$12,169 for four fines imposed by the ANLA and one by Corantioquia. From the ANLA, the first for having obstructed the course of the "Quebrada Tenche" water source by filling it with stone material; the second for building or modifying a tunnel without prior authorization and disposing of excess material on the road to San Andrés de Cuerquia; The third related to the adaptation of the slopes on which the geomembrane was installed and the waterproofing of the soil surrounding the solid waste disposal cell in the "BOLIVIA" landfill; and the fourth for having initiated activities related to the construction of the Auxiliary Deviation System (SAD) and its associated infrastructure within the Ituango Project without having previously processed and obtained the modification of the environmental license. For its part, Corantioquia declared EPM environmental liable for carrying out intervention in natural forests in March 2014 in Village (Vereda) las Palmas in the municipality of Envigado without having applied The balance as of 31 December 2019 is \$12,169.

Sanctions: As of 31 December 2019, there is a provision of \$1,656 to be charged to the Superintendence of Public Utilities for sanctions within the investigation of the Guatapé plant incident that occurred on 15 February 2016.

Ituango contingency:

- In EPM, provision for \$38,877 for the Contingency of the Hidroituango Project that caused the rising of the waters of the Cauca River as a consequence of the occluding of the waters that the project had on 12 May 2018. For the attention of the affected people of Puerto Valdivia, for the compensation of emergent damage, lost profits and moral damage. As of 31 December 2019, the balance of the provision amounts to \$35,873.
- Provision recognised in 2018 for \$42,917 for the attention of the affected families and evacuated due to the total loss of their homes and economic activities, as a result of the increase in the waters of the Cauca River due to the occluding of the project on 28 April 2018. This provision includes all costs for the maintenance of the shelters and the payment of economic support; this estimate was updated and projected until October 2019. As of 31 December 2019, EPM has paid \$20,420 and the balance of the provision is \$4,256.
- Provision of \$11,864 corresponding to sanctions imposed by the National Environmental Licensing Authority -ANLA to EPM for not implementing environmental management measures for the execution of works or executing them without the respective authorization or modification of the environmental license. Among them are: a) obstruction of the channel of the water source "Quebrada Tenche" when filling it with stone material; b) construction of the tunnel or modification without previous authorization and disposal of excess material on the road to San Andrés de Cuerquia; c) beginning of activities related to the construction of the Auxiliary Deviation System (SAD) and its associated infrastructure within the Ituango Project, without having previously processed and obtained the modification of the environmental license. This provision had payments during 2019, amounting to \$2,420.

Aguas Nacionales in Medellín - Colombia: includes provision for disputes brought by the CICE and HHA consortia of a contractual, non-judicial nature. The CICE consortium built the Interceptor Norte. The HHA Consortium is responsible for the construction of the Wastewater Treatment Plant in Bello and the points under discussion relate to time, design engineering and financial issues. The main assumptions considered in the calculation for each type of provision are the same as those applied to lawsuits provision. The balance of the provision as of 31 December 2019 amounts to \$15,914.

CENS - Norte de Santander - Colombia: includes provision for expected losses on construction contracts. The balance of the provision as of 31 December 2019 amounts to \$84.

ADASA in Chile: includes the provision related to the return of the working capital existing at the end of the concession term of the Sanitary Concession Transfer Agreement, signed between the Company and Econssa Chile S.A. The balance of the provision as of 31 December 2019 amounts to \$27,476.

ENSA in Panama: includes the provision related to compensation to customers for non-compliance with service quality standards, which are regulated by the National Public Services Authority of Panama (ASEP). The balance of the provision at 31 December 2019 amounts to \$15,592.

TICSA in Mexico: includes provisions related to: contractual obligations, electricity expenses and other expenses related to plant construction projects. The balance of the provision as of 31 December 2019 amounts to \$5,866.

DELSUR in El Salvador: includes provision related to customer claims for improper collections, voltage variations, damage to electrical appliances, among others. The balance of the provision as of 31 December 2019 amounts to \$893.

27.1.7 Estimated payments

The estimate of the dates on which the Group may have to disburse payments related to contingent liabilities included in the consolidated statement of financial position at the cut-off date, is the following:

Estimated payments provisions	Decommissioning or restoration	Onerous contracts	Lawsuits	Business combination	Warranties	Other provisions	Total
To one year	72,542	32,246	196,457	6,837	-	160,598	468,680
To two years	42,298	-	19,003	1,197	108,630	29,097	200,225
To three years	47,946	-	11,191	3	-	5,940	65,080
To four or more years	26,362	-	55,852	125,309	-	89,284	296,807
Total	189,148	32,246	282,503	133,346	108,630	284,919	1,030,792

Figures stated in millions of Colombian pesos

27.2. Insurance technical reserves

The technical reserves associated with insurance contract obligations are as follows:

Insurance technical reserves	2019	2018
Loss reserve payable	93,613	129,491
Reserve for unreported incurred losses	68,729	49,804
Unearned premium reserve	39,748	39,912
Total	202,090	219,207

Figures stated in millions of Colombian pesos

Movement in insurance technical reserves was as follows:

2019	Initial balance	Adjustment in technical reserves	Final balance
Loss reserve payable	129,491	(35,878)	93,613
Reserve for unreported incurred losses	49,804	18,925	68,729
Unearned premium reserve	39,912	(164)	39,748
Total	219,207	(17,117)	202,090

Figures stated in millions of Colombian pesos

2018	Initial balance	Adjustment in technical reserves	Final balance
Loss reserve payable	92,550	36,941	129,491
Reserve for unreported incurred losses	32,350	17,454	49,804
Unearned premium reserve	32,979	6,933	39,912
Total	157,879	61,328	219,207

Figures stated in millions of Colombian pesos

27.3. Contingent assets and liabilities

The composition of contingent assets and liabilities is as follows:

Type of contingency	Contingent liabilities	Contingent assets
Lawsuits	1,063,985	274,717
Warranties	223,327	133
Others	413,775	-
Total	1,701,087	274,850

Figures stated in millions of Colombian pesos

The Group has disputes or proceedings currently pending before courts, administrative bodies and arbitrators.

The main pending lawsuits and judicial and extrajudicial disputes to which the Group is party as of the court date are indicated below:

27.3.1 Contingent liabilities

Company	Third party (Plaintiff)	Complaint	Amount
EPM	ISAGEN S.A. E.S.P.	Order EPM to compensate ISAGEN for the damages it suffered as a result of the fire and the consequent unavailability of the Guatapé plant.	290,981
	Misc. Administrative	327 lawsuits under \$5,931 with an average of \$645.	210,915
	Hidroeléctrica Ituango S.A.	Value of the execution for the fines of constraint at the date of filing of the lawsuit. Such amount will be increased by interest on arrears, and for each day of delay.	106,158
	Aura De Jesús Salazar Mazo	They request 100 SMLMV for the affectation of the mining activity; for moral damages which are assessed in the equivalent of 200 SMLMV for each of the persons in the group, approximately 113.	39,211
	Aura De Jesús Salazar Mazo	Collective right, approximately 113 persons, each claiming \$1,133,400 for consolidated loss of earnings and \$78,753,854 for future loss of earnings, for destroying, interrupting and cutting the ancestral roads of La Herradura that lead from the Alto Chiri trail in the municipality of Briceño to the village of Valle de Toledo.	29,569
	Obras Civiles E Inmobiliarias S.A - Oceisa	Declare that EPM's failure to comply with its main obligation to deliver studies and designs prevented the execution of the contract by OCEISA and that it is not contractually liable for those portions of the work which could not be executed by third parties due to events beyond the control of the parties which prevented the normal execution of the contract.	16,614
	Misc. Labour	201 lawsuit less than \$784 with an average of \$73	14,634
	Luis Fernando Anchico Indaburo	Declare EPM administratively responsible, as the cause of the anti-legal damage due to the destruction of the fishing resource of the Montecristo swamp complex, which is due to the construction of the PHI (Ituango Hydroelectric Project) and requests the recognition and payment of a minimum wage for each family nucleus from February 2019 until the sentence is issued, this is denominated by the defendants as consolidated loss of profit.	13,680
	Luis Fernando Anchico Indaburo	Declare EPM administratively responsible, as the cause of the anti-legal damage by having destroyed the fishing resource of the Montecristo marshes complex, which is due to the construction of the PHI (Ituango Hydroelectric Project); that a minimum wage be recognised and paid for each family nucleus from February 2019 until the sentence is issued and the recognition of a future loss of profit that goes from the moment of the sentence until the probable life span of each of the plaintiffs.	13,668
	Yalida María Madrigal Ochoa	For the eleven defendants, it is estimated that they suffered damages to their family and social environment as a result of the death of Nicolás Alberto Moreno Trujillo.	10,356

Company	Third party (Plaintiff)	Complaint	Amount
	Maikol Arenales Chaves	Declare EPM administratively responsible, as the cause of the anti-legal damage by having destroyed the fishing resource of the Montecristo swamp complex, which is due to the construction of the PHI (Ituango Hydroelectric Project) and requests the recognition and payment of a minimum wage for each family nucleus from February 2019 until the sentence is issued, this is called by the defendants as consolidated loss of earnings.	10,204
	Maikol Arenales Chaves	Declare EPM administratively responsible, as the cause of the anti-legal damage by having destroyed the fishing resource of the Montecristo marshes complex, which is due to the construction of the PHI (Ituango Hydroelectric Project); that a minimum wage be recognised and paid for each family nucleus from February 2019 until the sentence is issued and the recognition of a future loss of profit that goes from the moment of the sentence until the probable life span of each of the plaintiffs.	10,204
	Javier Maure Rojas	Declare EPM administratively responsible, as the cause of the anti-legal damage by having destroyed the fishing resource of the Montecristo marshes complex, which is due to the construction of the PHI (Ituango Hydroelectric Project) and requests the recognition and payment of a minimum wage for each family nucleus from February 2019 until the sentence is issued, this is called by the plaintiffs as a consolidated loss of earnings.	8,605
	Javier Maure Rojas	Declare EPM administratively responsible, as the cause of the anti-legal damage by having destroyed the fishing resource of the Montecristo marshes complex, which is due to the construction of the PHI (Ituango Hydroelectric Project); that a minimum wage be recognised and paid for each family nucleus from February 2019 until the sentence is issued and the recognition of a future loss of profit that goes from the moment of the sentence until the probable life span of each of the plaintiffs.	8,605
	INMEL Ingeniería S.A.S.	Order EPM to compensate Consorcio Línea BGA for the damages suffered, in proportion to its participation in the contractor consortium (80%), after the submission of the offer, execution and completion of contract CT 2016 001695, where unforeseen situations and circumstances not attributable to the contractor occurred that substantially varied the defined execution conditions and made compliance more onerous for the contractor and which the contractor failed to comply with while refusing to restore the financial or economic balance of the contract.	7,626
	CONINSA RAMÓN H S.A.	That EPM, failed to comply with contract No. 2/DJ-2183/43 and its additional agreements, (bilateral modification acts) signed with EL CONSORCIO CONINSA S.A.- CONSTRUCCIONES E COMERCIO CAMARGO CORRÁ S.A., due to the non-payment of the damages suffered by El Consorcio Contratista, during the execution and development of the contract.	6,801

Company	Third party (Plaintiff)	Complaint	Amount
	Alejandra Betancur Giraldo	Declare EPM, the municipality of Girardota and INGELEL, are responsible for the de facto occupation of the plaintiffs' property. That they be paid the damages, jointly and severally, in the amount of \$6,102,004,043.	6,111
	VELPA SOLUCIONES INTEGRALES S.A.	EPM is ordered to pay the damages suffered by Velpa Soluciones Integrales, with its respective update and moratorium interests, since its proposal was rejected within the 2009-0927 contracting process and was awarded to the firms ELECTROLUMEN Ltda and MELEC S.A., as well as the amount of the sums that VELPA SOLUCIONES INTEGRALES S.A. will no longer receive, due to the impossibility of contracting with the State for a period of 5 years, as a result of the decision adopted by EPM.	5,931
	Moraine Olave De Larios	Relatives of a former Integral worker who died in Ituango, claiming full compensation for damages, for moral damages caused. Solidarity.	5,121
	HERNANDO DIAZ CORREA	Plaintiff requests compensation for work accident.	924
	Aldo Adrián Gutiérrez Posada	Employer substitution ex EADE.	788
	Juliana Urrea Giraldo	Plaintiff seeks a declaration that the death of the former Mincivil worker occurred due to the employer's fault. The intention is to declare the MISPE Consortium jointly and severally liable to EPM, for the payment of patrimonial and extra patrimonial damages.	784
	Ciudadela Comercial Unicentro Medellín PH	Declare the nullity of the administrative act issued by EPM with filed 20190130037817 of February 27, 2019. Order the reinstatement of the plaintiff's rights by ceasing the collection of the electric energy tax contemplated by Law 142 of 1994, Law 143 of 1994 and Law 223 of 1995; and, make the refund of the amounts paid for such concept from January 1, 2017 and until the date of judicial notification that ends the process.	282
	Jesús Evelio Garcés Franco	Nullity of the resolutions that resolve the Appeal for Replacement by EPM, and of the SSPPD be declared; that EPM be declared administratively responsible for restoring the rights of the plaintiff due to the undue collection of alleged works in connection with the water supply.	166
Total EPM			817,938
Aguas Nacionales	HHA Consortium (Controversy)	Dispute of a contractual, non-legal nature arising from the construction of the Aguas Claras plant, regarding timing, engineering, design and financial issues	343,560
	Consortio CICE (Controversy)	Dispute of a contractual nature	70,216
	Wilber Leibin Castillo Borja / Matilde Andrade de Palacios and others	Declare the company liable for the death of the wife of the plaintiff, allegedly caused by a traffic accident on a rainwater collection grate.	2,632

Company	Third party (Plaintiff)	Complaint	Amount
	Adrián Heber Murillo Ortiz	Declare and condemn the Municipality of Quibdó, Aguas del Atrato, Aguas Nacionales E.P.M. S.A. E.S.P., administratively responsible without division of quotas for all extra-patrimonial damages of moral order, of alteration to the conditions of existence and material in the morality of emergent damage suffered by all the plaintiffs.	1,229
	Darly Bibiany Cabezas y Otros	Other proceedings for amounts less than \$277 million	1,140
	Seguros Comerciales Bolívar S.A.	Monetary recognition for damages caused to one of the Insurer's clients due to a rainstorm in March 2006 that caused flooding.	616
	Compañía Colombiana de Consultores S.A.S.	Declare AGUAS NACIONALES EPM S.A. ESP failed to comply with contract No. 2014-90000-00147 and consequently that it be settled in court, that it be declared responsible for the damages suffered by the plaintiff COMPAÑÍA COLOMBIANA DE CONSULTORES S.A.S., and that it be ordered to pay.	535
	Rosalba Valoyes Palomeque	Based on Article 90 of the National Constitution, declares the municipality of Quibdó, Aguas Nacionales EPM S.A. ESP, INGECOR S.A.S. to be administratively and jointly liable for all the damages caused by the injuries to Mrs. Rosalba Valoyes Palomeque.	522
Total Aguas Nacionales			420,450
ENSA	Compañías Generadoras	Performance guarantee to provide credit security and compliance with obligations under power purchase agreements.	152,347
	Autoridad Nacional de los Servicios Públicos	Performance bond to guarantee compliance with obligations under the Concession Agreement.	49,157
	Autoridad Nacional de los Servicios Públicos	For non-compliance with the technical service quality standard	20,690
	Empresa de Transmisión Eléctrica, S. A.	Bank guarantee to ensure payment of one month's billing for the Transmission System.	11,401
	Ente Operador Regulador del El Salvador y Otros	Letter of credit as a guarantee of payment of energy purchase costs in the occasional market.	10,421
	SEGURITAS, INC. Y OTROS	Claim for damages and labor	1,928
Total ENSA			245,945
EDEQ	Gerson Obed Peña Muñoz and others	They demand the return of the money collected from the public lighting tax in the municipality of Armenia, as they consider this collection to be illegal.	67,886
	Danielly Arcila de Gil y Otros	The defendants are declared administratively, extra-contractually, jointly and patrimonially responsible for the injuries suffered by Mrs. Danielly Arcila de Gil, which are a consequence of the fall suffered by an iron hook that is part of the cover of the junction box, which is made of concrete and belongs to the MUNICIPALITY OF ARMENIA, the PUBLIC COMPANIES OF ARMENIA - E. S.P.; and the EMPRESA DE ENERGIA DEL QUINDÍO S.A. E.S.P. PUBLIC SERVICES COMPANY - EDEQ.	2,514

Company	Third party (Plaintiff)	Complaint	Amount
	Maria Amparo Fernández Gil	That he be ordered to pay all damages, due to the death of Mr. Otálvaro Sánchez	2,022
	Diana Rocío Vargas Álzate and others	Demand for direct reparation for the death of the minor JOAN MANUEL VARGAS PELÁEZ, which occurred on November 16, 2013 at Finca La Molienda Quindiana. (village Baraya- Montenegro Quindío)	911
	John Jairo López Pérez and others	EDEQ is being sued for the damages allegedly suffered by the plaintiffs in the death by electrocution of Jhon Esteban López Henao, which occurred on November 4, 2016 at the Lotería del Quindío building	773
	Sandra Milena Sánchez	That the Co-defendants be declared administratively responsible for the facts and omissions that caused the death of Mr. Otálvaro Sánchez, and that as a consequence of such declaration the Co-defendants be condemned.	593
	Jhon James Montoya Marín and others	Declare the defendant entity administratively responsible for the damages caused to Mr. Jhon James Montoya Marín and Others as a consequence of an electric shock caused by an electric cable	592
	Leonardo Castaño López	Declare that Mr. Leonardo Castaño López was unjustly dismissed and that he is therefore entitled to the compensation that this situation entails	448
	Angela Eliana Jaramillo Ballén and others	EDEQ is sued for the death of David Mauricio Walteros Jaramillo as a result of the traffic accident that occurred on July 30, 2016. EDEQ is being sued because, allegedly, he was in charge of the public lighting fixtures.	436
	Alba Lucía Luna García and others	EDEQ is being sued for the damages suffered due to the death of young Victor Manuel Serrano Luna and the injuries suffered by Laura Victoria Botero on November 22, 2014, being the first: 20 in the afternoon, when the young people were travelling on a motorcycle, brand Auteco línea pulsar 135 LS, model 2014, plate ITT 13D, at the height of the neighbourhood La Alambra by the race 19 A in front of the block A number 3, of the municipality of Armenia, when they stumbled upon a fixed cement block, left on the track, which caused them to collide with a power pole, located incorrectly, on the edge that separates the platform from the vehicle track. ”	431
	Claudia Marcela Escobar Pérez and other	EDEQ is being sued for the death of David Mauricio Walteros Jaramillo as a result of a traffic accident on July 30, 2016. EDEQ is being sued because he was allegedly in charge of the public lighting fixtures.	378
	Luis Fernando Cerón Betancur and others	EDEQ is being sued for the damages suffered by Mr. Luis Fernando Cerón Betancur and his family as a result of the electric shock he suffered on June 11, 2015 while he was carrying out construction work on the second floor of a house located in the municipality of Montenegro on the 6Nro 20-49 road, as a consequence of the shock he fell from the second floor.	328
	Ricaurte Arévalo Hernández and others	EDEQ is being sued for injuries sustained by an ROR worker who was involved in an accident on December 23, 2017, while performing work in the city of Armenia in the La Española condominium.	325

Company	Third party (Plaintiff)	Complaint	Amount
	Alba Irene Muñoz y Otros	Other proceedings for amounts less than \$143 million	263
Total EDEQ			77,899
ESSA	Other provisions	Other miscellaneous provisions	10,652
	Tomon Ltda	Requests that the existence of a Strategic Alliance contract between ESSA and the Temporary Union "San Gil Iluminado" be declared.	8,866
	Carlos Gerardo Hernández Flórez	Declare the Department of Santander, Municipality of Betulia and Electrificadora de Santander S.A. ESP as administratively responsible, jointly and severally or individually, as the case may be, for the material and moral damages caused to Mr. Carlos Gerardo Hernández Flórez due to the failure or lack of service of the administration for the events that occurred on January 7, 2015 that caused the fire in the municipality of Betulia Santander and affected his property called Finca Vistahermosa.	5,327
	APH Servicios Eléctricos S.A. Tomon Ltda., Kesman Overseas Limited., Inversiones El Prado	Requests that the existence of a Strategic Alliance contract between ESSA and the Temporary Union "San Gil Iluminado" be declared.	5,262
	José De La Cruz Carreño Acevedo y Otros	Other proceedings for amounts less than \$768 million	5,103
	Gerrsson Enmanuel Duarte Pabón	Declare the ESSA responsible for the damages caused to Gerson Duarte and his family (4 people), for the damages derived from the inadequate location of the energy networks that caused the electrocution of the actor on July 30, 2011, when he was working on the property located at Calle 10 con carrera 14 no. 10-37 barrio San Antonio de Piedecuesta. Order the ESSA for the material and moral damages derived from the described event that in the actor's opinion are equivalent to the sum of \$2,128,885,110	2,772
	Promotora Agrotropical Colombiana SAS	Failure to comply with the commercial offer No. ON-013-2008 of October 3, 2008 is declared. The ESSA is ordered to pay \$886,313,271.31 in damages.	1,197
	Gabriel Méndez Jaimes	ESSA be declared administratively responsible for the damages caused to the Plaintiff.	1,004
	Blanca Sepúlveda Oviedo	Moral damages/loss of earnings/health damage	936
Total ESSA			41,120
CHEC	Honorios Herrera López and others	Material, patrimonial, moral damages, emergent damage,	30,090
	Municipio de Salamina	Energy no longer generated and marketed	5,605
	Reinel Rivera Toro y Otros	Direct compensation for moral and material damages	2,123
	José Gustavo Morales Guarín	Injury compensation	1,437
	Positiva Compañía de Seguros S.A.	Return of mathematical capital reserve	1,089

Company	Third party (Plaintiff)	Complaint	Amount
	Suministros y Proyectos Tecnológicos Eléctricos SYPELC	Restitution of unauthorised cost overruns and discounts in contract	644
Total CHEC			40,987
Emvarias	JAC VAINILLAL Y OTROS	DIRECT REPAIR	14,814
	JUNTA DE ACCIÓN COMUNAL LA CEJITA	Declarations	9,299
	Varios Pasivos contingentes	Labor Liability and Reality Contract	4,081
	JESÚS GREGORIO VALENCIA	CHANGE OF MODE FROM PUBLIC WORKER TO OFFICIAL WORKER	956
	WILSON MARIO QUINTERO	DAMAGE TO HEALTH, FUTURE LOSS OF EARNINGS, PAST LOSS OF EARNINGS, SUBJECTIVE MORALITY OF THE INDIRECT VICTIM.	593
	JOHN JAIRO MESA ISAZA	PATRONAL GUILT	172
	MARTHA CECILIA LEGARDA OCAMPO Y OTROS	OCCUPATIONAL LIABILITY	114
	JORGE HERNANDO BARON SEPULVEDA Y OTROS	CONVENTIONAL PENSION	93
	JAIR IGNACIO AGUDELO ÁLVAREZ	Salary levelling	70
	BEATRIZ ELENA RESTREPO RENDON Y OTROS	SOLIDARITY	47
	GLORIA LUZ OSPINA GUTIERREZ	Call for warranty nullity and restoration of right	33
	Ligia Beatriz Pereira Girón y Otros	PENSION REPLACEMENT	21
	LIGIA STELLA SIERRA VALENCIA	Salary levelling	20
	JHON DARIO CANO LONDOÑO	Readjustment of pension compensation.	11
Total Emvarias			30,323
CENS	Carlos Enrique Salamanca Soto y Otros	Other proceedings for amounts less than \$563 million	3,882
	Mariana Bautista Ortiz	Declare the NACION-CENTRALES ELÉCTRICAS DEL NORTE DE SANTANDER S.A. E.S.P. civil, administrative, patrimonial and extra-contractual liable for the damages caused to the plaintiffs as a result of the death of Mr RAMON ALPIO ALVAREZ PAEZ (Q.E.P.D.) on 26 April 2016, as a consequence of an electrical discharge produced by a high voltage cable.	2,305

Company	Third party (Plaintiff)	Complaint	Amount
	Orlando Emiro Contreras Velasco	Declare that the applicants are entitled, throughout their pensionable lives, to have their pensions adjusted in accordance with the parameters indicated in Article 1 of Law 71 of 1988 and not in accordance with those set out in Article 14 of Law 100 of 1993, and order CENS to pay the applicants retroactively the sums which have not been paid and which have been settled when the largest increase is applied	2,081
	Paht Construcciones S.A.S.	Order the settlement of Contract CT-2015-000070, entered into by the parties, where CENTRALES ELECTRICAS DEL NORTE DE SANTANDER S.A E.S.P., must readjust the contractual equity in favor of PAHT CONSTRUCCIONES S.A.S., with the application of the theory of unforeseen circumstances.	1,561
	Geomara Carreño	For moral damages the sum of 1300 smlmv. Damage in life in relation / material damages - / lost profits.	1,386
	Nubia Boada Dueñas	The lawsuit requests the continuation of the payment of 12% of the monthly pension, the reimbursement of the contributions discounted from the moment of the compatibility of the pension duly indexed and the payment of moratorium interest of article 141 of Law 100 of 1990, plus the costs of the process.	1,386
	Eleida Carrascal Velásquez	Obtain the recognition and payment by CENS and the Department of Norte de Santander, in favor of the applicant, of the value of the material damages (consequential damages, loss of earnings and moral or immaterial damages) caused to her by the total destruction of the business establishment called Ferretería y Materiales Diego Alejandro, in events that occurred on February 5, 2015, which caused damage to her assets and patrimonial income.	1,151
	Sara Franco Guerrero	Order CENS S.A E.S.P. and ELECTRONING S.A.S. to pay for moral damages. 100 SMLMV to each of the applicants and the direct victim / order CENS S.A E.S.P and ELECTRONING S.A.S to pay for the life damages in relation to 100 SMLMV to each of the applicants	884
	Luvier Sánchez	It is requested that CENS and the other defendants be declared liable for the damages caused to Mr. Luvier Sánchez and the other applicants, requesting payment of material and immaterial damages.	837
	Jeison Orlando Ortiz Valenzuela	Declare jointly and severally CENS and the Municipality of Aguachica - Mayor's Office - Planning Secretariat, administratively responsible for the totality of the damages caused to the plaintiffs by the death of Mr. Fabio Alberto Ortiz Valenzuela, in events that occurred on March 29, 2014, due to electrocution.	835
	Julio Cesar Peña Villamizar	Declare CENS S.A E.S.P. directly responsible for the death of at least Gerson Fabian Peña Capacho, on October 27, 2006 for providing energy services, considered a risky activity.	686
	Other administrative proceedings, for amounts less than \$200 million.	Other administrative proceedings (8) for amounts less than \$200 million.	624

Company	Third party (Plaintiff)	Complaint	Amount
	Other labor proceedings, for amounts less than \$200 million.	Other labor proceedings (27) for amounts less than \$200 million.	606
Total CENS			18,225
Aguas Regionales	María Inés Osorio Montoya	That the MUNICIPALITY OF APARTADÓ AND/OR REGIONAL WATERS EPM S.A ESP, jointly and severally or independently are administratively responsible for the omission in the fulfillment of their constitutional and legal duties for the death of the young Cesar Augusto Jiménez Osorio (q.e.p.d) determined by the injuries suffered in the events that occurred on June 1st, 2016 in the city of Apartadó.	3,013
	Rosmery Velásquez Herrera	Order AGUAS REGIONALES EPM S.A. E.S.P. to return the property to the owners; / Order the defendant company to pay the civil fruits that the owners could have received with average intelligence and activity, from August 2012 until the date of the judgment; / If the property is not voluntarily surrendered within the term set by his office, order the competent police officer to enforce that order; / Order the defendant company to pay the costs of the proceedings.	124
	WILSON DE JESÚS LEGARDA PALACIO	Declare that between Mr. WILSON DE JESÚS LEGARDA PALACIO and EMPRESAS MANPOWER DE COLOMBIA, identified with Nit 890.916.868-8 an employment contract was entered into, which began on June 1, 2015 and was effective until June 28, 2018, date on which the employer decided to unilaterally and unfairly terminate the employment contract.	57
Total Aguas Regionales			3,193
Aguas de Antofagasta	Lawsuit C-4372-2019 Soto with ADASA	M\$200.000.-	887
	Lawsuit 12.050/73 Investigación Sumaria, Gobernación Marítima.	30.000 pesos	857
	Lawsuit C-26284-2019 Muñoz with ADASA	M\$172.000.-	759
	Lawsuit C-4568-2016 Constructora e Inmobiliaria CRC Ltda. with Econssa Chile S.A. and others	Other proceedings for amounts less than \$171 million	320
Total Aguas de Antofagasta			2,823
EMPRIIO	Maria Consuelo Giraldo	Declare the company and Mr. Gonzalo Emilio Pérez Montoya responsible for the damages caused by the death of Mr. Justo Pastor Herrera Giraldo	1,168
	Diego Nicolás Botero Puerta	Indemnity for unjustified dismissal to fixed-term contract for 21 months	217
Total EMPRIIO			1,385

Company	Third party (Plaintiff)	Complaint	Amount
Aguas de Malambo	T & A Proyectos Ltda.	Problematic additional amounts of work and greater permanence of work in the execution of contract No. 22-2012.	764
	Fabian Bacca Jiménez	Recognition by Aguas de Malambo of an employment relationship acquired in 2015 and 2016 in which he worked as a temporary employee of the company S.A.S. and, consequently, payment of holidays, bonuses, severance pay, bonus for signing the agreement and compensation for dismissal without just cause.	19
	Emer Enrique Conrado Anguila and others	The Nation is declared administratively responsible Municipality of Malambo Department of Atlántico, Instituto nacional de Infraestructura (ANI) Concessionary firm, Autopista del Sol SAS. Aguas de Malambo S.A. ESP. responsible for material damages, health to other goods and or rights conventionally and constitutionally protected and in general any other type that is shown to have been caused by the failure to provide the service.	15
Total Aguas de Malambo			799
Total contingent liabilities			1,701,087

Figures stated in millions of Colombian pesos

Regarding the uncertainty of the estimated payment date and the estimated value payable, the same business rules indicated in note 27.1.3 Lawsuits apply to contingent liabilities.

27.3.2 Contingent assets

Company	Third party (Plaintiff)	Complaint	Amount
EPM	Municipality of Bello	Integral nullity of the complex administrative act contained in Resolutions 2717 of 2009 and 0531 of 2010 PTAR Bello.	117,972
	Municipality of Bello	Reimbursement of monies paid by EPM, for the determination and liquidation of the capital gain effect, PTAR Bello.	114,820
	La Nación Ministerio de Salud y Protección Social	MINSALUD has the legal and constitutional obligation to recognise and cancel the value of the services rendered to members in relation to medicines and/or procedures, interventions or elements not included in the Compulsory Health Plan (POS).	7,079
	Other administrative	Processes for amounts less than \$867.	4,589
	Interconexión Eléctrica S.A. E.S.P. ISA	To declare that Interconexión Eléctrica S.A. E.S.P., ISA is civilly responsible for not recognising 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 of use of the STN in the Playas and Guatapé substations represented by it, in which there is shared property, value that to date	3,577

Company	Third party (Plaintiff)	Complaint	Amount
		has not been realized, generating an enrichment without cause by increasing the patrimony of the defendant at the expense and to the detriment of the patrimony of the plaintiff.	
	Poblado Club Campestre Ejecutivo S.A.	Declare the Poblado Club Campestre Ejecutivo S.A., Optima S.A. Vivienda y Construcción and the Municipality of Envigado responsible for the damage to the collector owned by EPM, which collects and transports the wastewater from the sanitary basin of the La Honda stream in the Municipality of Envigado, and indemnify EPM for the value of all the patrimonial damages that are proven for the damage to the collector that collects and transports the wastewater from said sanitary basin.	3,369
	Other Tax	Processes with a value of less than \$114,820.	2,321
	Fiduciaria Bogotá S.A. - FIDUBOGOTÁ S.A.	TO IMPOSE in favor of EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. a power transmission easement, on the lot of land or property called LA BOCA DEL PANTANO, with real estate registration No. 50 C-1497258 located in a rural area of the Municipality of Madrid (Cundinamarca) for the 500 Kv transmission lines, and for one (1) tower point (with its landings) of the Transmisión Nueva Esperanza project.	923
	Municipality of Envigado	To declare the nullity of the administrative act contained in Resolutions 2656 of August 13, 2007 and 4176 of October 26 corresponding to the sanction imposed for the alleged violation of Municipal Decree 259 of August 14, 2002; to declare the inapplicability of Decree 259 of August 14, 2002 of the Municipality of Envigado (Antioquia), "By means of which urbanistic sanctions are established", for being contrary to the Political Constitution, the Law and the Regime of Public Home Services. Order by way of restoration of rights, that EPM be refunded \$655'460,000 for the sanction imposed on the administrative acts whose nullity is requested.	867
Total EPM			255,517
CENS	Dirección de Impuestos y Aduanas DIAN	Declare the nullity of the official revision settlement >No 072412015000018 of September 14, 2015 and Resolution No 007521 of October 4, 2016.	9,276
	Dirección de Impuestos y Aduanas DIAN	Declare the nullity of a) Resolution issued by the Dirección de Impuestos y Aduanas Nacionales DIAN, notified to CENS on September 15, 2015. b) Resolution issued by the Dirección de Impuestos y Aduanas Nacionales DIAN, notified to CENS, which resolves the appeal for reconsideration filed by CENS against the official review assessment, ORDER the defendant to make the refund of the amount of money paid by CENS S.A E.S.P, for the higher Income and Complementary Tax and the sanction for inaccuracy with the current	4,027

Company	Third party (Plaintiff)	Complaint	Amount
		interest and moratoriums in accordance with the provisions of article 863 of the Tax Statute.	
	Consortio CDE Ltda.	Obtain cancellation of the resources owed in favour of CENS	1,243
	Rubén Darío Sanchez y Otros	Other proceedings for amounts less than \$121 million	330
Total CENS			14,875
Aguas Regionales	Municipality of Chigorodó	Issue a payment order in favor of Aguas de Urabá S.A. E.S.P. and against the MUNICIPALITY OF CHIGORODÓ, for sewage and aqueduct subsidies owed in 2008, 2009 and 2010.	1,922
	Corpourabá - Corporación para el Desarrollo Sostenible del Urabá	Declare the nullity of the 1. Settlement of Tax No. 6509 of the remuneration rate corresponding to the municipality of Apartadó for the period January to December 2014, given that it does not correspond to the reality of the charges dumped by the sewerage users of the company Aguas de Urabá S.A. E.S.P. in the urban area of the municipality of Apartadó (Antioquia)	367
	Superintendence of Public Home Utilities - SSPD	Official liquidation number SSPD No. 20185340029156 of 3 August 2018 of the Special Contribution corresponding to the year 2018 for the Aqueduct service. And several prosecutors	228
Total Aguas Regionales			2,516
Aguas de Malambo	Municipality of Malambo	A payment order is hereby issued against the Municipality of Malambo - Atlántico and in favor of Aguas de Malambo S.A. ESP. for the following sums of money: \$1,446,217,806.90 for the concept of capital represented in the promissory note 01 of 2011 that is contributed. For the interest on arrears of the above capital from December 31, 2012 at the rate of 28.76% effective per annum until the obligation is cancelled.	1776
	Superintendence of Public Home Utilities	Return of greater value cancelled by AGUAS DE MALAMBO S.A. E.S.P., for the special contribution corresponding to 2015, for the Sewerage service, in the amount of \$4,379,938, in accordance with the difference established between the official liquidation made by the defendant entity (added to the payment of the advance) and the legally collectible value in accordance with the taxable base authorized by Law 142 of 1994, article 85.	5
Total Aguas de Malambo			1,781
Emvarias	MARTA NELLY QUINTERO R	MORTGAGE EXECUTIVE	27
Total Emvarias			27
Total contingent assets - lawsuits			274,717

Company	Third party (Plaintiff)	Complaint	Amount
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Figures stated in millions of Colombian pesos

Warranties

The Group has provided the following warranties:

Company	Third party (Plaintiff)	Complaint	Amount
ESSA	Seguros del Estado	Constituted and granted with the purpose of covering litigious process against the Municipality of Bucaramanga	133
Total ESSA			133
Total granted warranties			133

Figures stated in millions of Colombian pesos

Estimated payments and collections

The estimated dates on which the Group expects to make payments related to the contingent liabilities or receive collections related to the contingent assets included in this note to the consolidated statement of financial position at the cut-off date are as follows:

Estimated payments and collections	Contingent liabilities	Contingent assets
To one year	130,528	128,072
To two years	22,077	15,183
To three years	50,815	128,312
To four years and beyond	1,303,883	25,769
Total	1,507,303	297,336

Figures stated in millions of Colombian pesos

Note 28. Other liabilities

The composition of other liabilities is as follows:

Other liabilities	2019	2018
Non-current		
Collection in favour of third parties ⁽¹⁾	10	10
Payments received in advance	4,130	4,371
Government grants	25,745	25,778
Assets received from customers or third Parties	30,955	31,784
Other deferred loans	21,089	21,159
Transfer of financial assets and guarantees	34,511	36,425
Total other liabilities non-current	116,440	119,527
Current		
Collection in favour of third parties ⁽¹⁾	197,144	115,715
Payments received in advance	123,711	67,786
Government grants	708	763
Assets received from customers or third Parties	248	153
Transfer of financial assets and guarantees	8,253	6,231
Total other liabilities current	330,064	190,648
Total other liabilities	446,504	310,175

Figures stated in millions of Colombian pesos

- ⁽¹⁾ Obeys to collection in favour of third parties through agreements on public lighting, portfolio collection, solid waste management, taxes, among others.

28.1 Deferred Reinsurance Commissions

The breakdown of Deferred reinsurance commissions, which is included in the Payment received in advance, is as follows:

Deferred income from reinsurance commission	2019	2018
Initial balance	6,612	7,288
Amortization	(1,501)	(676)
Final balance	5,111	6,612

Figures stated in millions of Colombian pesos

28.2 Government Grants

Movement of Government grants to the cutoff date is as follows:

Grants	2019	2018
Initial balance	26,540	25,790
Awarded during the period	154	353
Recognized in profit or loss for the period	(1,023)	(2,091)
Effect in foreign exchange translation	255	1,587
Other changes	527	901
Final balance	26,453	26,540
Non-current	25,745	25,778
Current	708	763
Recorded value at 31 December	26,453	26,540

Figures stated in millions of Colombian pesos

The Group has received grants from the Inter-American Development Bank (IADB) for the micro and small business financing program; from Financiera del Desarrollo (FINDETER) as a favorable rate loan for the construction of water and sewerage infrastructure; and from the Fund for the Reconstruction of the Coffee Belt (FOREC) for the reconstruction of energy networks following the earthquake in that region of the country; by the Financial Fund for Development Projects (FONADE) for the promotion of telecommunications in rural schools, and by the Rural Electrification Office (Panama) and the National Investment Fund for Electricity and Telephony (El Salvador) for the construction of rural electrical infrastructure.

The Group has not breached any of the conditions relating to grants.

28.3 Payment received in advance

The breakdown of payment received in advance as of the cut-off date was:

Payment received in advance	2019	2018
Non-current		
Leases	298	399
Sales	162	117
Sale of energy utility	3,670	3,855
Total non-current payment received in advance	4,130	4,371
Current		
Leases	326	381
Sales	70,130	8,520
Sale of energy utility	19,480	45,640
Sale of water utility	7,435	1,591
Sale of sewerage utility	34	83
Sale of solid waste management utility	677	677
Sale of fuel gas utility	10,277	5,406
Other payment received in advance	15,352	5,488
Total current payment received in advance	123,711	67,786
Total payment received in advance	127,841	72,157

Figures stated in millions of Colombian pesos

Note 29. Changes in liabilities due to financing activities

The reconciliation of liabilities due to financing activities is as follows:

Reconciliation of liabilities due to financing activities 2019	Initial balance	Cash flows	Changes other than cash		Other changes ¹	Total
			Foreign exchange	Changes in fair value		
Loans and borrowings (see note 21)	20,834,800	(140,692)	103,866	-	(141,969)	20,656,005
Lease liabilities (see note 23)	195,483	(40,883)	-	-	528,160	682,761
Pension bonds (see note 23)	643,188	(26,091)	-	-	33,720	650,817
Hedging instruments	(192,465)	156,514	-	51,155	(61,352)	(46,148)
Dividends or surpluses paid	42,207	(1,392,814)	-	-	1,395,497	44,890
Capital grants	26,540	154	-	-	(241)	26,453
Other financing flows	-	(16,708)	-	-	16,708	-
Total liabilities from financing activities	21,549,754	(1,460,519)	103,866	51,155	1,753,815	22,014,778

Reconciliation of liabilities due to financing activities 2018	Initial balance	Cash flows	Changes other than cash		Other changes ¹	Total
			Foreign exchange	Changes in fair value		
Loans and borrowings (see note 21)	16,958,723	3,179,749	280,935	-	415,393	20,834,800
Lease liabilities (see note 23)	196,491	(1,040)	-	-	33	195,483
Pension bonds (see note 23)	640,720	(34,798)	-	-	37,266	643,188
Hedging instruments	46,596	(77,241)	-	(163,086)	1,266	(192,465)
Dividends or surpluses paid	340,996	(1,629,893)	-	-	1,331,104	42,207
Capital grants	25,790	353	-	-	397	26,540
Other financing flows	-	195,939	-	-	(195,939)	-
Total liabilities from financing activities	18,209,315	1,633,069	280,935	(163,086)	1,785,459	21,549,754

¹ Includes interest paid during the year of \$1,612,421 (2018: \$1,268,260), which by policy is classified as operating activities in the statement of cash flows; variation in measurement at amortized cost of loans and receivables \$1,444,332 (2018: \$1,271,472); translation effect \$-82,614 (2018 \$110,875); origination of dividends and surplus \$1,395,497 (2018 \$1,331,104); and Other \$609,021 (2018 \$340,268).

Note 30. Deferred regulatory accounts

The balance of deferred regulatory accounts at the date of presentation of the consolidated financial statements corresponds to the local regulatory framework applicable to the subsidiary Elektra Noreste S.A. - ENSA, established by the National Public Services Authority of Panama (ASEP). This entity is responsible for regulating and establishing the rates that the Company invoices to its customers. The Company maintains its accounting records in accordance with the uniform system of accounts established by ASEP for electric companies.

The regulated system under which the Company operates allows any excess or deficiency between the estimated cost of energy considered in the tariff and the actual cost incurred by the Company to be included as a compensatory adjustment, to be recovered from (or returned to) customers, at the next tariff review. Any excess in the cost of energy charged to customers is accrued as a credit to a deferred regulatory account in the Group's consolidated statement of financial position and carries a reduction in the next tariff review to be applied to customers. Similarly, any shortfall in the cost of energy charged to customers is accumulated as a debit balance in the deferred regulatory account in the Group's consolidated statement of financial position and leads to an increase in the next tariff review to be recovered from customers.

Deferred regulatory accounts with a debit balance represent probable future revenues associated with certain costs that are expected to be recovered from customers through the tariff process. Deferred regulatory accounts with a credit balance represent probable future revenue reductions associated with amounts expected to be credited to customers through the tariff process.

The movement of Deferred regulatory accounts is as follows:

Regulatory accounts	Asset (Liability)	
	2019	2018
Initial balance	111,868	48,842
Profit or loss form the period	(139,997)	52,884
Foreign exchange rates/Discount rates effect	2,519	10,142
Final balance	(25,610)	111,868

Figures stated in millions of Colombian pesos

Balances associated with Regulatory deferral accounts in accordance with regulation must be recovered or returned in the following two semesters.

The movement of deferred tax associated with the regulatory accounts is as follows:

Deferred tax related to regulatory accounts	Asset (Liability)	
	2019	2018
Initial balance	(33,560)	(14,653)
Profit or loss form the period	41,988	(15,928)
Effect of changes in foreign exchange	(745)	(2,979)
Final balance	7,683	(33,560)

Figures stated in millions of Colombian pesos

Cash flows generated by the regulatory accounts amounted to \$-137,478 (2018: \$63,026), which, by Group policy, are classified as operating activities in the statement of cash flows.

Note 31. Revenue

For presentation purposes, the Group breaks down its income from the services it provides according to the lines of business in which it participates and the way in which management analyses them. The detail of revenue is as follows:

Revenue	2019	2018
Sales of goods	24,222	18,266
Rendering of services		
Electricity generation service	4,043,982	3,804,344
Electricity transmission service	299,243	257,294
Electricity distribution service ⁽¹⁾	11,985,016	10,360,425
Inter-segments electricity elimination	(1,755,233)	(1,350,516)
Fuel gas service	860,675	847,081
Sewage service ⁽²⁾	696,033	590,327
Water service ⁽²⁾	1,188,428	1,083,065
Solid waste treatment service ⁽³⁾	240,848	222,470
Insurance and reinsurance services	15,148	9,353
IT Services	389	339
Construction contracts	61,317	125,697
Other services	215,623	156,053
Refunds	(238,796)	(271,561)
Total rendering of services	17,612,673	15,834,371
Leases	111,824	83,110
Gain in sale of assets ³	1,576	7,311
Total	17,750,295	15,943,058

Figures stated in millions of Colombian pesos

- (1) Revenue from the energy distribution service increased due to the application of Resolution 015 of 2018 and higher income from marketing due to higher unit costs and increased consumption.
- (2) Increase obeys higher discharges and consumption, users and tariffs.
- (3) Decrease due to the sale of land that the Group made to the subsidiary Promobiliaria S.A. for the development of a real estate project in 2018.

The Group recognises all its revenue from the satisfaction of performance obligations and most of its contracts with customers are for less than one year.

Construction contracts

The Group recognised revenue from ordinary activities for asset construction agreements within the scope of IAS 11 - Construction contracts at the cut-off date of \$61,317 (2018: \$125,697).

The method applied to determine the stage of completion of past construction contracts is the proportion of contract costs incurred for work already completed to date in relation to the total estimated costs for the contract.

Other contracts with customers

2019	Contract asset balance at the beginning of the period	Contract asset balance at the end of the period	Liability balance at the beginning of the period	Liability balance at the end of the period
Contract of uniform conditions for regulated utilities ⁽¹⁾	554,948	707,810	17,285	20,459
Non-regulated market - (NRM) or large customers ⁽²⁾	136,800	126,680	34,642	10,098
Other contracts with customers	-	4	5,857	6,216
Total	691,748	834,494	57,784	36,773

Figures stated in millions of Colombian pesos

2018	Contract asset balance at the beginning of the period	Contract asset balance at the end of the period	Liability balance at the beginning of the period	Liability balance at the end of the period
Contract of uniform conditions for regulated utilities ⁽¹⁾	503,265	554,948	20,947	17,285
Non-regulated market - (NRM) or large customers ⁽²⁾	115,837	136,800	25,575	34,642
Other contracts with customers	-	-	4,662	5,857
Total	619,102	691,748	51,184	57,784

Figures stated in millions of Colombian pesos

⁽¹⁾ The purpose of this contract is to define the uniform conditions by which Empresas Públicas de Medellín E.S.P., identified with TIN 890904996-1, hereinafter EPM, provides public residential utilities of water and/or sewage in exchange for a price in money, which will be fixed according to the current rates, and according to the use given to the service by the users, subscribers or owners of properties, hereinafter the USER, who by benefiting from the water and/or sewage utilities provided by EPM, accepts and abides by all the provisions defined herein.

⁽²⁾ Resolution 131 of 23 December 1998 of the Energy and Gas Regulation Commission (CREG) establishes the conditions for the supply of energy and power to large consumers and indicates in Article 2 the power or energy limits for a user to contract for the supply of energy in the competitive market; The aforementioned resolution allows the conclusion of contracts with large consumers to establish by common agreement the prices for the supply of energy and power; the object of the contract is to supply energy and power to the consumer, as an unregulated user, to meet its own demand.

Another important contract is the XM representation contract, which is not disclosed since there are no balances in assets and liabilities.

In contracts with customers, no income was recognised during the period from performance obligations satisfied in previous periods.

For these contracts it is not possible to identify the outstanding value of unmet performance obligations considering that they are contracts without a termination date.

Note 32. Other Income

The breakdown of other income is as follows:

Other income	2019	2018
Recoveries ⁽¹⁾	340,202	104,848
Compensation for asset damages ⁽²⁾	78,295	-
Other revenue	58,889	60,099
Valuation of investment properties ⁽³⁾	51,808	4,352
Commissions	33,730	32,448
Compensations	31,698	109,633
Benefit rights	7,313	7,855
Goods and services sales margin	2,754	2,094
Fees	2,253	2,185
Remainings	1,228	179
Government grants	1,023	2,091
Contracts for the management of public utilities	90	90
Investment property loans	16	-
Income on derecognition of right-of-use	16	-
Photocopies	4	4
Total other income	609,319	325,878

Figures stated in millions of Colombian pesos

- (1) Includes mainly recoveries from EPM Parent for provisions of \$88,084; labor lawsuits for \$75,019; contingent consideration Espiritu Santo for \$21,211, due to the modification of the estimated payment dates from 2020 to 2036; other recoveries for \$20,150, basically associated with the provision of the industry and commerce tax after the filing of the returns and recoveries for obligations that were extinguished for \$15,729.
- (2) Corresponds to the value of the assets of the Ituango hydroelectric project that were derecognised during 2018 due to the effects of the contingency (see note 4).
- (3) Increase obeys the valuation of some properties due to urban developments in neighbor sectors.

Note 33. Costs of services rendered

The breakdown of costs of services rendered is as follows:

Costs of Services Rendered	2019	2018
Purchases on the stock exchange and/or in the short term	3,523,410	3,325,626
Purchases in block and/or long-term	2,485,111	2,226,705
Use of lines, networks and ducts	1,291,976	1,177,651
Personal Services	818,587	780,129
Depreciations	814,417	749,595
Orders and contracts for other services	667,938	672,645
Maintenance and repair orders and contracts	384,846	306,933
Cost of natural gas distribution and/or marketing	349,249	347,205
Materials and other operating costs	181,681	180,968
Licenses, contributions and royalties	156,973	152,397
Amortizations	155,773	135,739
Insurance	127,715	97,721
General	110,080	100,604
Consumption of direct inputs	109,537	83,222
Fees	91,206	93,493
Taxes and Fees	86,191	73,802
Amortization of right-of-use(1)	36,505	-
Other cost of public goods and utilities for sale	34,716	16,962
Commercial and financial management of the service	31,023	27,999
Utilities	26,462	24,116
Leases	19,795	59,762
Commercialized goods	18,202	17,140
Costs associated with transactions in the wholesale market	10,886	9,534
Exhaustion	9,426	9,322
Cost for connection	8,879	18,540
Liquefied natural gas	4,980	2,172
Impairment of property, plant and equipment	2,243	-
Total costs of Services Rendered	11,557,807	10,689,982

Figures stated in millions of Colombian pesos

⁽¹⁾ Corresponds to finance lease contracts with the implementation of IFRS 16 - Leases, from January 2019.

Note 34. Administrative expenses and portfolio impairment

34.1. Administrative expenses

The breakdown of administrative expenses is as follows:

Administrative expenses	2019	2018
Personnel expenses		
Payroll expenses	450,255	395,297
Social security expenses	120,928	98,639
Pension expenses	49,961	44,796
Other post-employment benefit plans different from pension	5,334	5,237
Other long-term benefits	7,464	4,894
Termination enefits	(732)	1,918
Benfits in interst rates to employees	12,599	8,054
Total gastos de personal	645,809	558,835
General expenses		
Taxes, contributions and fees	187,662	188,053
Commissions, fees and services	135,020	108,123
Depreciation of property, plant and equipment	70,102	61,022
Provision for contingencies(1)	69,591	134,381
Maintenance	63,726	56,314
Provision for decommissioning, removal or rehabilitation(2)	61,450	31,549
Intangibles	43,396	36,691
Other miscellaneous provisions(3)	38,397	318,874
Amortization of intangibles	35,444	25,740
Other general expenses	25,144	24,162
Advertising and publicity	20,294	14,355
Studies and projects	19,921	15,420
General insurance	19,864	15,342
surveillance and private security	19,045	17,612
Amortization of right-of-use assets	18,432	-
Provision of guarantees	15,757	-
Christmas Lighting	12,945	14,547
Services of cleaning, cafeteria, restaurant and laundry	11,482	10,591
Promotion and publications	11,331	9,080
Communications and transport	9,315	9,277
Licenses and safe conduct	8,725	6,690
Utilities	6,570	12,979
Leasing	6,098	10,492
Legal expenses	5,568	3,727
Apprenticeship contracts	5,156	5,070
Materials and supplies	4,690	4,031
Printed matter, publications, subscriptions and affiliations	3,970	4,157
Photocopies	2,735	1,754
Information processing	2,612	3,519
Fuels and lubricants	2,549	2,131
Insurance and reinsurance provision	2,455	-
Management contracts	2,101	2,004
Organization of events	1,700	1,443
Per diem and travel expenses	1,690	1,623
Toilet, laundry and cafeteria equipment	1,530	1,616
Others	4,516	9,494
Total general expenses	950,983	1,161,863
Total	1,596,792	1,720,698

Figures stated in millions of Colombian pesos

- (1) During 2018, higher provisions were recorded due to the incident at the Ituango Hydroelectric Project, a situation that was controlled in 2019.
- (2) Corresponds to reclassification received from the account other miscellaneous provisions.
- (3) Decrease was explained by the lower provisions for the contingency of the Ituango project registered in 2018: \$137,318 for the guarantee that covers the construction and operation of the Pescadero Ituango Hydroelectric Plant, \$101,797 for the Ituango connection, \$42,917 to continue attending to evacuees due to the contingency of the project and \$31,388 for the environmental contingency.

34.2. Loss due to portfolio impairment

The breakdown of net impairment loss of receivables at the date of the reporting period is as follows:

Impairment of receivables	2019	2018
Reversal on impairment of receivable	152,542	53,153
Impairment of receivables	(230,343)	(122,614)
Total impairment loss of receivable	(77,801)	(69,461)

Figures stated in millions of Colombian pesos

Note 35. Other Expenses

The breakdown of other expenses is as follows:

Other expenses	2019	2018
Loss on asset disposal ⁽¹⁾	99,445	102,781
Other ordinary expenses ⁽²⁾	37,101	62,148
Contributions to non-corporate entities	14,947	15,025
Arbitral awards and extrajudicial conciliations ⁽³⁾	3,294	12,360
Taxes assumed	1,667	3
Court rulings	484	371
Loss due to changes in fair value in investment property	291	479
Donations	171	318
Loss on sale of assets	53	4,162
Loss on derecognition of right-of-use	14	-
Total	157,467	197,647

Figures stated in millions of Colombian pesos

- (1) Includes decommissioning of asset for the contingency of the Ituango Hydroelectric project.
- (2) The decrease obeys lower expenses executed in 2019 for the attention of the community affected by the contingency of the Ituango project.
- (3) In 2018, arbitration awards with Rio Piedras for \$10,316 are included.

Note 36. Finance income and expenses

36.1 Finance income

The breakdown of finance income is as follows:

Finance income	2019	2018
Interest revenue:		
Bank deposits	40,022	38,023
Interest income from financial assets at amortized cost	46	35
Interests by debtors and arrears	207,976	176,293
Inflation indexation gains	11	13
Gains from valuation of financial instruments at fair value ⁽¹⁾	86,702	26,339
Gains from valuation of financial instruments at amortized cost	111	1,989
Gains from trust rights	32,212	23,750
Other finance income	3,757	4,394
Total finance income	370,837	270,836

Figures stated in millions of Colombian pesos

⁽¹⁾ Corresponds to the valuation of the temporary investment portfolio. The variation with respect to the previous period obeys the increase in the amount invested in said portfolio.

36.2 Finance expenses

The breakdown of finance expenses is as follows:

Gastos financieros	2019	2018
Interest expenses:		
Interests for lease liabilities ⁽¹⁾	58,618	37,795
Other interest expenses	34,126	62,262
Total interests	92,744	100,057
Short-term internal public credit operations	1,005	673
Long-term internal public credit operations	230,612	208,660
External long-term public credit operations ⁽²⁾	615,810	491,815
Short-term internal financing operations ⁽²⁾	56,775	6,378
Long-term internal financing operations	72,336	72,139
Long-term external financing operations	59,646	49,700
Total interest expense on other financial liabilities not measured at fair value through profit or loss	2,885	547
Fees other than the amounts included when determining the effective interest rate	7,534	8,433
Other finance expenses	150,935	111,391
Total finance expenses	1,290,282	1,049,793

Figures stated in millions of Colombian pesos

⁽¹⁾ Increase associated with the implementation of IFRS 16 - Leases, from January 2019.

⁽²⁾ Increase related to new loan disbursements received in the period.

Note 37. Net foreign exchange difference

The effect of transactions in foreign currency is the following:

Foreign exchange difference, net	2019	2018
Foreign exchange difference gains		
<u>Own position</u>		
For goods and services and other	34,219	5,376
For liquidity	15,038	62,336
Receivables	292,688	119,608
Other adjustments in foreign exchange difference	50,198	13,686
<u>Financial</u>		
Gross profit	23,748	43,000
Total foreign exchange difference gains	415,891	244,006
Foreign exchange difference expenses		
<u>Posición propia</u>		
For goods and services and other	(13,503)	(15,415)
For liquidity	(25,250)	(7,358)
Receivables	(254,053)	(76,298)
Other adjustments in foreign exchange difference	(51,354)	(87,684)
<u>Financial</u>		
Gross expenses	(127,614)	(321,368)
Total foreign exchange difference expenses	(471,774)	(508,123)
Foreign exchange difference, net	(55,883)	(264,117)

Figures stated in millions of Colombian pesos

The rates used for the conversion of foreign currency in the consolidated financial statements are:

Currency	ISO Code	Exchange to USD as of December 31		Exchange rate as of December 31		Average exchange rate	
		2019	2018	2019	2018	2019	2018
United States Dollar	USD	-	-	3,277.14	3,249.75	3,378.05	3,218.55
Guatemalan quetzal	GTQ	7.70	7.74	425.67	420.03	439.36	416.37
Mexican peso	MXN	18.89	19.69	173.52	165.01	176.86	160.23
Chilean peso	CLP	769.88	694.00	4.26	4.68	4.39	4.70

Note 38. Gain on equity investment

Gain on equity investment is as follows:

Gain on equity investment	2019	2018
Dividends and participations ⁽¹⁾	57,262	68,209
Profit or loss on sale of equity investments, net ⁽²⁾	(47,535)	(3,042)
Total gain on equity investment	9,727	65,167

Figures stated in millions of Colombian pesos

- ⁽¹⁾ Includes dividends of investments classified in Financial Instruments (See note 13. Other financial assets).
- ⁽²⁾ Includes in 2019 a loss of \$47,620 generated in EPM Parent for the sale of 14,881,134 ISA shares, originated by the difference between the sale price and the valuation of the share on the day of the transaction, (\$15,700 pesos/share - \$18,900 pesos/share = \$-3,200 pesos/share). In 2018, this corresponds to a loss on the sale of the equity investment that was held in Ecosistemas de Uruapan S.A. de C.V.

Note 39. Income tax

39.1 Tax Provisions

Tax Provisions applicable and in effect, establish the following:

- The nominal income tax rate is 33% for EPM and its subsidiaries in Colombia.
- For Guatemalan subsidiaries, the tax is determined by the Regime on Profits from Profitable Activities consisting of applying the rate of 25% on profits; or by the Simplified Optional Regime on Income from Profitable Activities, consisting of applying the tax rate on monthly taxed income. From 2014 onwards, the tax rate is 5% on the first Q 30,000 and 7% on the surplus; likewise, the tax legislation contemplates a Regime on Capital Income which establishes a rate of 10% and a tax of 5% on the distribution of dividends and profits to both resident and non-resident shareholders.
- For subsidiaries in El Salvador, 30% for companies with taxable income over US\$150,000 and 25% for those that do not exceed that ceiling; for subsidiaries in Panama and Mexico, a tax rate of 30%; and for subsidiaries in Chile, the nominal rate is 27% for 2018 and subsequent periods.
- Public utilities domiciled in Colombia are excluded from determining income tax by the presumptive income system calculated from fiscal liquid assets of the immediately preceding year.
- During the taxable period, the Congress of the Republic of Colombia approved Law 2010 of 2019 reiterating the income tax rate, which had been modified by Law 1943 of 2018 that was declared unconstitutional by the Constitutional Court, which generated a significant impact on the recovery of deferred tax from EPM and its national subsidiaries for the period 2018.
- The Holding company of the EPM Group uses the tax benefit called "Special deduction for investment in real productive fixed assets", equivalent to 40% of the investments made during the taxable period. This benefit is in force for the EPM Generation segment on the occasion of the legal stability contract signed with the National Government in 2008.

39.2 Effective rate Reconciliation

Reconciliation between the applicable tax rate and the effective rate and the composition of income tax expense for the periods 2019 and 2018 is as follows:

Income tax and complementary	2019	%	2018	%
Profit before tax	4,015,939		2,595,223	
Nominal income rate		33%		37%
Income tax nominal rate	1,325,260		960,233	
Effects of changes in tax rates	-	0%	(217,950)	-8%
Elimination in consolidated results	(138,403)	-3%	14,781	1%
Tax effect of tax rates by foreign subsidiaries	(196,484)	-5%	(243,500)	-9%
Effect of permanent tax differences:	(97,491)	-2%	(125,849)	-5%
Dividend Income	249,911	6%	145,018	6%
Tax-only income	196,078	5%	28,751	1%
Special deduction refund	118,768	3%	11,597	0%
Non-deductible provisions	48,242	1%	181,135	7%
Untaxed dividends	(151,361)	-4%	(117,228)	-5%
Compensation for consequential damage	(174,205)	-4%	(33,423)	-1%
Exempt income	(141,713)	-4%	(17,740)	-1%
Special deduction for productive real assets	(196,923)	-5%	(292,481)	-11%
Net result other permanent differences	33,345	1%	67,442	3%
Rate difference adjustment (current tax/deferred)	(79,633)	-2%	(98,919)	-4%
Tax discounts	46,173	1%	5,628	0%
Occasional Earnings	3,120	0%	548	0%
Income adjustments from previous years	(39,630)	-1%	(172,029)	-7%
Income tax at effective rate	810,199	20%	210,606	8%
Details of current and deferred expenditure				
Current tax	1,043,701	26%	574,890	22%
Deferred tax	(233,502)	-6%	(364,285)	-14%
Income Tax	810,199	20%	210,606	8%

Figures stated in millions of Colombian pesos

39.3 Income tax recognised through profit or loss

The most significant components of income tax expense at the cut-off date are:

Income tax	2019	2018
Current income tax		
Expenses due to current income tax	1,083,331	745,033
Adjustments recognized in the current period related to the current income tax of previous periods	(39,630)	(172,029)
Net expense for current income tax, SIP, reserves and rectifications		-
Other current income taxes		1,886
Total Current income tax	1,043,701	574,890
Deferred tax		
Net expenses due to deferred tax related to the origin and reversal of temporary differences	(232,202)	(123,162)
Net expenses (revenue) due to deferred tax related to changes in income tax or regulations	(1,364)	(234,860)
Tax benefits from tax losses, tax credits or temporary differences used in the period	-	1,782
derecognition in accounts (or reversal in pre-recognized accounts) asset due to deferred tax	-	(6,417)
Net expense (income) for deferred tax related to changes in accounting policy/errors	-	(611)
Other deferred taxes	63	(1,016)
Total deferred tax	(233,502)	(364,284)
Income tax	810,199	210,606

Figures stated in millions of Colombian pesos

- (1) Deferred tax expense (income) related to changes in tax rates for 2019 and 2018 corresponds to changes in the rate for determining deferred tax due to the amendment introduced by Law 1943 of December 28, 2018 (in force during 2019, declared unconstitutional by Constitutional Court Ruling C-481 of 2019), rates ratified by Law 2101 of December 27, 2019 applicable as of January 2019.

The rates used for the determination of deferred tax are:

37% for 2018 (33% income and 4% surcharge), which varied from the previous year's 40%, this for short-term items that are reversed during 2018. For generation, a rate of 37% is used considering the legal stability contract signed with the National Government.

33% for 2019, which varied compared to the used the previous year of 37%, this for medium-term items that revert during 2019, as a result of the elimination of the surcharge.

32% for 2020, which varied from the previous year's 33% for long-term items that revert during 2020.

31% for 2021, which varied from the previous year's 32% for long-term items that revert during 2021.

30% for 2022 and subsequent periods, which varied from the previous year's figure of 31% for long-term items that reverse during 2022 and subsequent periods.

For property, plant and equipment, the current rate was used considering the year in which the difference is expected to be reversed, taking as a reference the remaining useful life of each asset.

For assets which profit is expected to be realized from occasional earnings a rate of 10% is used.

27% for temporary differences generated in subsidiaries in Chile, 30% for subsidiaries in Panama and Mexico and 25% for other subsidiaries in Central America.

The current income tax expense is impacted for 2019 mainly by the higher profits obtained in the period, in the same way the increase is justified by the restitution of the benefit of the special deduction of real productive fixed assets and that is originated in the removal of assets from the Ituango Hydroelectric Project, as well as the rejection of costs and deductions associated with the contingency of this project.

For 2018, mainly due to the effect of recoveries from previous income tax and supplementary tax periods, since EPM received during that taxable period refunds from the tax authority for an amount close to \$440,000 million, for balances in favor and recoveries in income tax and supplementary tax in application of Article 66 of Law 1739 of 2014, equity tax for the 2011 period under the legal stability agreement, and

wealth tax due to decrease in liquid equity and consequently decrease in the taxable base subject to this tax.

Regarding the amounts not recognised as a refund by the National Tax and Customs Administration for the 2011 taxable period, EPM, in exercise of the control of nullity and restoration of rights, filed a claim before the Administrative Court of Antioquia against the tax authority, which amounts to approximately \$258,000 million.

The rates used to determine deferred tax for subsidiaries in Colombia are:

Year	2019	2020	2021	2022
Income	33%	32%	31%	30%
Total tariff	33%	32%	31%	30%

EPM's electricity generation segment has an income and supplementary tax rate of 33%, stabilized for 20 years under the legal stability agreement EJ-04 of March 31, 2008, as amended by OTRO SI EJ-01 of June 4, 2010.

39.4 Temporary differences with no effect in deferred tax

Deductible temporary differences and unused tax losses and credits, for which the Group has not recognised deferred tax assets, are as follows:

Description	2019	2018
More than one year and up to five years	672	179
More than five years	3,367	47
No time limit	5,341	5,342
Unused tax losses	9,380	5,568
No time limit	161,653	59
Unused tax credits	161,653	59
More than one year and up to five years	71	2,229
More than five years	2,697	-
Surplus of presumptive income over ordinary liquid income	2,768	2,229
Total	173,801	7,856

Figures stated in millions of Colombian pesos

The unused deductible temporary differences and losses, tax credits and surplus of presumptive income over ordinary liquid income, correspond to unused tax losses by Aguas de Malambo S.A. E.S.P. of \$7,298 million (2018 \$5,521), EPM Inversiones S.A. of \$1,373 (2018 \$0), Hidroecológica del Teribe S.A. of \$672 (2018 \$0) EV Alianza Energética S.A. for \$37 (2018 \$47), unused tax credits by Empresas Públicas de Medellín E.S.P. of \$161,519 million (2018 \$-), Aguas de Malambo S.A. E.S.P. of \$134 million (2018 \$59) and unused presumptive income over ordinary liquid income by EPM Inversiones S.A. of \$2,698 million (2018 \$2,222), EV Alianza Energética S.A. of Ch\$7 (2018 \$7), Aguas de Malambo S.A. E.S.P. of \$64 million (2018 \$0).

The value of current income tax assets or liabilities is the following:

	2019	2018
Current income tax asset or liability		
Total non-current income tax liability		
Income tax ⁽¹⁾	(33,701)	(33,701)
Total income tax liability	(33,701)	(33,701)
Total current income tax liability		
Income Tax	(363,584)	(91,264)
Total income tax assets	169,185	118,400
Balance in favor of rent	169,185	118,400
Total income tax assets (or liabilities)	(228,100)	(6,565)

Figures stated in millions of Colombian pesos

- ⁽¹⁾ Corresponds to the tax liabilities for works of EPM and EDEQ, which represents the possibility for companies to partially pay income and complementary taxes by financing and executing public works of social importance in the areas most affected by the conflict - ZOMAC - instead of transferring the resources to the tax authority DIAN. This possibility arose with Law 1819 of 2016 and was regulated with Decree 1915 of 2017.

This liability is backed by a commercial trust contract which is being executed as the works under this program are built.

39.5 Income tax recognised in other comprehensive income

The detail of the tax effect corresponding to each component of "other comprehensive income" in the consolidated statement of comprehensive income is as follows:

Accumulated other comprehensive income	2019			2018		
	Bruto	Efecto impositivo	Neto	Bruto	Efecto impositivo	Neto
Reclassifications of property, plant and equipment to investment property	13,438	(1,204)	12,234	13,439	(1,643)	11,796
New measurements of defined benefit plans	(115,483)	38,338	(77,145)	(47,279)	18,898	(28,381)
Equity investments measured at fair value through equity	2,796,497	(2,092)	2,794,405	2,300,129	(131,825)	2,168,304
Share of other comprehensive income of associates and joint ventures	(3,914)	-	(3,914)	(3,640)	-	(3,640)
Cash flow hedges	8,421	(30,005)	(21,584)	(21,581)	(48,922)	(70,503)
Translation of financial statements of foreign operations	600,765	-	600,765	817,051	-	817,051
Total	3,299,724	5,037	3,304,761	3,058,119	(163,492)	2,894,627

Figures stated in millions of Colombian pesos

39.6 Deferred tax

The breakdown of deferred tax is as follows:

Deferred tax	2019	2018
Deferred tax asset	220,026	249,700
Deferred tax liability	(2,243,327)	(2,556,008)
Total deferred tax, net	(2,023,301)	(2,629,024)

Figures stated in millions of Colombian pesos

39.6.1 Deferred tax assets

Deferred tax assets	Initial balance	Assets classified as held for sale	Changes included in the OCI	Net changes in profit or loss	Translation effect adjustments	Effect of loss of control in subsidiary	Others	Valuation to equity	Foreign exchange translation effect	Difference in movements	Final Balance
Assets	999,190	-	2,217	166,318	132	(116,626)	157,809	587	(6,402)	98	1,203,323
Property, plant and equipment	705,103	4	-	(29,205)	1	(116,332)	1,543	587	4,369	1	566,071
Intangibles	12,952	(4)	-	(7,192)	-	(294)	1	-	278	(2)	5,739
Investments and derivative instruments	12,114	-	1,836	(1,133)	-	-	217	-	526	4	13,564
Receivables	181,980	-	-	1,570	-	-	9,749	-	841	(5)	194,135
Cash and cash equivalents	-	-	-	1	-	-	-	-	-	-	1
Inventories	6,636	-	-	(1,362)	131	-	766	-	(0)	(5)	6,166
Other assets	80,405	-	381	131,928	-	-	145,533	-	(12,416)	105	345,936
Right-of-use deferred tax assets	-	-	-	71,711	-	-	-	-	-	-	71,711
Liabilities	(749,490)	1	2,189	(77,441)	(8,555)	170	(158,546)	-	8,427	(51)	(983,296)
Loans and borrowings	288,964	4	-	(57,397)	(8,555)	104	(36)	-	(5,454)	4	217,634
Payables	24,984	-	-	7,539	-	-	1	-	40	2	32,566
Employee benefits	233,137	-	17,887	8,635	-	-	(664)	-	0	5	259,000
Derivatives	223	-	-	(220)	-	-	-	-	-	-	3
Provisions	190,871	(3)	-	(13,257)	-	(21)	18,113	-	(1,862)	2	193,843
Other liabilities	108,586	-	-	(60,191)	-	-	21	-	657	-	49,073
Effect by elimination vs. asset	(1,596,255)	0	(15,698)	37,450	-	87	(175,981)	-	15,045	(64)	(1,735,416)
Total deferred tax assets	249,700	1	4,406	88,877	(8,423)	(116,456)	(737)	587	2,025	47	220,026

Figures stated in millions of Colombian pesos

39.6.2 Deferred income liability

Deferred tax liability	Initial balance	Assets classified as held for sale	Changes included in the OCI	Net changes in profit or loss	Translation effect adjustments	Effect of loss of control in subsidiary	Others	Valuation to equity	Foreign exchange translation effect	Difference in movements	Final Balance
Assets	3,593,185	(1)	(98,077)	(157,559)	-	(87)	221,175	(6,370)	2,010	116	3,554,392
Property, plant and equipment	2,823,081	(4)	-	389,617	-	(292)	150,827	(6,370)	1,961	-	3,358,820
Intangibles	34,545	3	-	(19,448)	-	205	66,045	-	(4,806)	(1)	76,543
Investment property	1,401	-	-	10,886	-	-	(1)	-	-	4	12,290
Investments and derivative instruments	111,178	-	(98,077)	(99,375)	-	-	26,458	-	10	-	(59,806)
Receivables	570,257	-	-	(479,874)	-	-	1,154	-	5,060	7	96,604
Inventories	1,364	-	-	(101)	-	-	(230)	-	(22)	1	1,012
Other assets	51,359	-	-	(8,949)	-	-	(23,078)	-	(193)	105	19,244
Right-of-use	-	-	-	49,685	-	-	-	-	-	-	49,685
Liabilities	(1,037,177)	1	(66,495)	12,934	44	87	(218,787)	-	(1,588)	(84)	(1,311,065)
Loans and borrowings	27,421	-	-	39,169	44	-	(341)	-	119	(4)	66,408
Payables	96,572	-	-	(49,922)	-	-	765	-	2	(5)	47,412
Employee benefits	175,348	-	(1,650)	(6,150)	-	-	(1,180)	-	(35)	-	166,333
Derivatives	59,599	-	(49,147)	(10,171)	-	-	1	-	45	(8)	319
Provisions	3,014	-	-	3,474	-	-	(4)	-	(7)	-	6,477
Other liabilities	197,124	-	-	(947)	-	-	(42,047)	-	(16,727)	(3)	137,400
Effect by elimination vs. liability	(1,596,255)	1	(15,698)	37,481	-	87	(175,981)	-	15,015	(64)	(1,735,414)
Total deferred tax liabilities	2,556,008	-	(164,572)	(144,625)	44	-	2,388	(6,370)	422	32	2,243,327

Figures stated in millions of Colombian pesos

Significant variations in deferred tax assets and liabilities are mainly generated by the application of the new income tax rates introduced by Article 80 of Law 1943 of 2018 (in force during 2019, declared unconstitutional by Ruling C-481 of 2019 of the Constitutional Court), rates ratified by Law 2010 of 27 December 2019, which resulted in an income tax recovery; to the extent that the deferred tax on temporary differences as of 2017 was calculated at a higher income rate based on the rates in force under Law 1819 of 2016, in accordance with paragraph 47 of IAS 12.

Another significant item is the unrealized exchange difference resulting from the application of the exchange rate at the end of the reporting period for accounting purposes, which when compared to the exchange rate established by the tax standard, generates a higher deductible temporary difference than the one reported in the calculation of the deferred tax from the previous year, i.e. the exchange difference of the debt causes the accounting base of the financial liability to be higher than its tax base.

39.6.3 Temporary differences

The most significant concepts on which Temporary Differences were presented are the following:

In assets, the greatest impact arises from temporary differences in property, plant and equipment by virtue of asset purchase and sale transactions between EPM Group companies, which imply the recognition of unrealized accounting profits in the Group, on which individual companies must pay taxes, and from the valuation at amortized cost of long-term receivables. In trade receivables, this corresponds to the portfolio provisions due to the difference in the depreciation of the portfolio provision under the tax standard and the portfolio impairment under the accounting standard with the expected loss method; additionally, there are temporary differences due to the effect of the valuation at amortized cost of short-term loans to economic associates.

Regarding liabilities, the items that impact the calculation of deferred taxes are, for the most part, the settlement of the provision corresponding to installments of pension bonds, the actuarial calculation of pensions and the pension commutation of EADE, the amortization of the actuarial calculation of Emvarias' pensions, and the loans and borrowings from the valuation at amortized cost of bonds, securities issued, and short-term loans and borrowings. Differently, the temporary differences in the liabilities for long-term employee benefits such as retirement pensions, installments of pension bonds and actuarial calculation of retroactive severance payments and interest on severance payments and the unrealized exchange difference of payables.

No deferred tax was generated on items that have no future tax consequences, such as tax liabilities and finance income generated on the plan assets of, EPM, CHEC and Emvarias as they are exempt income in accordance with Article 235-2, paragraph 7 of the Tax Code.

Other circumstances that affect the determination of deferred tax in the consolidated financial statements are related to the management of the investment portfolio in ISA, Parque Eólico Los Cururos and the business reorganisation process that begun at the end of 2019 with the merger by absorption of the subsidiary Empresas Públicas de Rionegro S.A.S E.S.P. -EPRIO-. These operations have a direct impact on the calculation of deferred tax, since between EPM, Cururos and EPRIO there were reciprocal operations for the purchase and sale of assets and valuations at amortized cost for loans between related parties; with the management of the investment portfolio, the reciprocal operations are eliminated, assets are realized and liabilities are settled; with their corresponding effect on deferred tax. In addition, in the Aguas Claras wastewater treatment plant operating contract, the valuation of the account receivable recorded by Aguas Nacionales compared to the valuation made by EPM for the finance lease under accounting standards is asymmetrical as they use different financial assumptions and accounting bases.

Temporary differences on which no deferred tax was generated were, among others, for the investments in subsidiaries, associates and joint ventures, in accordance with paragraph 39 of IAS 12; also, in the items without future tax consequences, such as tax liabilities and plan assets, of EPM, CHEC and Emvarias because they correspond to items except of income tax.

The approval of dividends in the EPM Group after the date of presentation and before the financial statements were authorized for publication, does not generate income tax consequences as is the policy of national subsidiaries to distribute only non-taxed profits and reserves. Tax effects that in the income tax could be generated by dividends declared by foreign subsidiaries are eliminated with the entry into force of article 77 of Law 2010 of 2019, since these distributions are considered income exempt from capital in application of the Colombian Holding Companies (CHC) regime.

Finally, the devaluation effect that the Colombian currency has experienced during the last taxable period, close to 0.84%, generates a substantial increase in the accounting value of liabilities and payables in foreign currency, while its continuous stable tax base and its effects are only evident at the time of settlement or partial payment of the obligations, based on the difference in exchange effectively made, as provided by articles 269 and 288 of the Tax Code. The above implies a decrease in net deferred tax.

New regulations for subsidiaries in Colombia

Ley de Financiamiento Colombia (Financing Law Colombia)

During 2019, Law 1943 of 2018 "By which financing rules are issued for the reestablishment of the balancing of the national budget and other provisions", was the subject of lawsuits filed with the Constitutional Court, seeking a declaration of unconstitutionality due to procedural defects in its formation.

Thus, through Ruling C - 481 of 16 October 2019, the Constitutional Court accepted the claims of one of the lawsuits and declared that the articles contained in the financing law are unconstitutional, stating: *"THIRD. TO PROVIDE that (i) the declaration of unconstitutionality provided for in the second resolution shall take effect as from the first (1st) of January of two thousand and twenty (2020), so that Congress, within its own power to configure it, may issue the regime that ratifies, repeals, modifies or subrogates the contents of Law 1943 of 2018; (ii) the effects of the present ruling shall only be produced towards the future and, consequently, in no case shall they affect the consolidated legal situations"*. Thus, the rules contained in Law 1943 of 2018, remain in force during the taxable period 2019, since the ruling of the Constitutional Court was made with deferred effect, that is, maintaining the validity of the law until 31 December 2019.

According to the above, the Congress of the Republic had a limited term to issue a regime to ratify, repeal, modify or subrogate the contents of the law that was declared unconstitutional.

Ley de Crecimiento Económico 2019 Colombia (Economic Growth Act 2019 Colombia)

During the last quarter of 2019, the National Government submitted to Congress a bill on economic growth, in order to comply with the Constitutional Court's ruling.

Under this scenario and after exhausting the stages required by the Colombian legal system for the creation of the law, on 27 December 2019, Law 2010 of 2019 was passed *"By means of which regulations are adopted for the promotion of economic growth, employment, investment, the strengthening of public finances and the progressiveness, equity and efficiency of the tax system, in accordance with the objectives that Law 1943 of 2018 promoted on this matter, and other provisions are issued"*.

Thus, among the main modifications, we can highlight:

General rate of income and supplementary taxes:

The income and supplementary tax rate will have the following modification:

2020:	Thirty-two percent (32%)
2021:	Thirty-one percent (31%)
2022 onwards:	Thirty percent (30%)

Presumptive Income

Will experience a progressive elimination as follows:

2019: 1.5%

2020: 0.5%

2021 onwards: 0%

Exemption in the determination of presumptive income for home utilities is maintained.

Sales tax (VAT)

The general rate of 19% is conserved.

The 5% rate is maintained for electric vehicles and their components, parts and accessories, as well as for the components and spare parts of the natural gas vehicle plan.

The VAT rule of Article 192 of Law 1819 of 2016 remains, according to which, the VAT rate of contracts in which a public entity is a contracting party will be the one corresponding to the date of the resolution or awarding act, or subscription of the respective contract, the rate is increased once they are added.

Other elements

- Tax deductions on income tax is kept as on VAT paid in the acquisition, import, construction and forming of real productive fixed assets, including the required services to put the good in use conditions, and those assets acquired through leasing.
- The possibility of taking 50% of the industry and commerce tax paid as a tax discount is retained. It is estimated in accordance with the growth law that from the year 2022 this discount will be 100%.
- The tax on dividends received by national companies continues in effect to the general rate of 7.5% by way of withholding tax on income, that will be transferable and imputable to the resident natural person or investor resident abroad.
- The sale of electricity generated from wind energy, biomass or agricultural waste, solar, geothermal or sea energy by electricity generating companies, as defined in Law 1715 of 2014 and Decree 2755 of 2003, will continue to be exempt of income tax for a period of 15 years as from 2017, as defined by Law 1715 of 2014 and Decree 2755 of 2003.
- The Colombian Holding Companies (CHC) framework is ratified as an instrument to promote foreign investment in the country.
- The requirements to access the tax benefits through the figure of Mega Investments are updated with the possibility of accessing a tax stability regime.
- The amendments made by Law 1943 of 2018 to the sub-capitalisation rule in Article 118-1 of the Tax Code remain in force, limiting the deductibility of interest paid when there is over-indebtedness, specifying that such limitations only apply to debts incurred between economic associates.

Note 40. Discontinued operations

On 16 September 2019, the EPM Group announced the signing of a share purchase agreement with AES Gener S.A. and its subsidiary Norgener Renovables SpA to dispose of 100% of the shares it holds in Parque Eólico Los Cururos SpA. and EPM Transmisión Chile S.A., as part of the sale plan promoted by the Group to meet the liquidity requirements arising from the contingency in the Ituango Hydroelectric Project.

As of 30 September 2019, the operations of Parque Eólico Los Cururos SpA. and EPM Transmisión Chile S.A. were classified as discontinued operations and are presented in the generation and transmission segments, respectively.

The detail, by function, of the income (loss) for the period from discontinued operations net of tax in the consolidated statement of comprehensive income and the net cash flows in the consolidated statement of cash flows, corresponding to the subsidiaries Parque Eólico Los Cururos SpA. and EPM Transmisión Chile S.A., is as follows:

Discontinued operations	2019	2018
Income ⁽¹⁾	70,196	51,517
Cost of services rendered	(16,837)	(43,992)
Expenses	(4,877)	(3,781)
Other income	168	890
Other expenses	(22)	(1,880)
Income from discontinued operations before taxes	48,628	2,754
Income tax associated with the profit of discontinued operations	(383)	(6,788)
Income (loss) from discontinued operations	48,245	(4,034)

Figures stated in millions of Colombian pesos

- ⁽¹⁾ In 2019 includes \$27,148 for realization of capitalized interest and 8,222 for reclassification of other comprehensive income in translation of financial statements.

Cash flows related to discontinued operations are:

Assets held for sale	2019	2018
Operating activities	15,206	5,622
Investment activities	475,471	(14,263)
Financing activities	(9,471)	18,845
Net cash flows	481,206	10,204

Figures stated in millions of Colombian pesos

The disposition of the investments was made on 27 November 2019.

Note 41. Information to be disclosed on related parties

EPM, the Holding company of the EPM Group, is a decentralized industrial and commercial company of municipal order, whose sole owner is the Municipality of Medellín. Its capital is not divided into shares.

Related parties of the Group are subsidiaries, associates and joint ventures, including subsidiaries of associates and joint ventures, key management personnel, as well as entities over which key management personnel may exercise control or joint control and post-employment benefit plans for the benefit of employees.

Balances and transactions between EPM Group companies have been eliminated in the consolidation process and are not disclosed in this note. The total value of the transactions performed by the Group with its related parties during the corresponding period is shown below:

Transactions and balances with related parties	Income ⁽¹⁾	Costs/ Expenses ⁽²⁾	Amounts receivable ⁽³⁾	Amounts payable ⁽⁴⁾	Guarantees received ⁽⁵⁾
Associates:					
2019	70,363	32,728	6,815	4,693	-
2018	146,319	34,656	45,000	12,459	-
Key management personnel from the company or its controller:					
2019	5	27,090	790	2,738	1,082
2018	189	18,936	1,038	1,304	964
Other related parties:					
2019	58,499	80,039	18,956	4,552	-
2018	23,231	67,728	9,826	214,522	-

Figures stated in millions of Colombian pesos

- (1) Income from transactions with associates corresponds to the sale of services related to information and communication technologies, information services and the complementary activities related to them. Income generated with other related parties corresponds mainly to the sale of electricity, the rendering of public utilities and financial services. Detail of the income obtained by the Group from its related parties is as follows:

	Income	2019	2018
Associates	Sale of goods and services	49,351	103,098
	Others	21,012	43,221
Key personnel of the company's management or its controller	Sale of goods and services	5	7
	Others	-	183
Other related parties	Sale of goods and services	50,976	22,465
	Interests	-	351
	Fees	3,764	23
	Others	3,759	393
Total income from related parties		128,868	169,740

Figures stated in millions of Colombian pesos

- (2) Corresponds to costs and expenses arising from transactions involving the purchase of electricity, the acquisition of goods and services, including services related to communications and complementary activities, with associates and other related parties. The detail of costs and expenses incurred by the Group with its related parties is as follows:

	Costs and expenses	2019	2018
Associates	Purchase of goods and services	30,664	30,931
	Fees	2,047	3,726
	Others	17	-
Key personnel of the company's management or its controller	Purchase of goods and services	4,224	16,957
	Fees	54	-
	Others	22,812	1,979
Other related parties	Purchase of goods and services	51,175	42,553
	Interests	1	1
	Fees	8,268	907
	Others	20,595	24,266
Total costs and expenses incurred with related parties		139,856	121,319

Figures stated in millions of Colombian pesos

- (3) The Group keeps receivables from its related parties arising from the sale of electricity, the rendering of public utilities, the sale of services associated with information and communications technologies and information services, among others. The EPM Group classifies its receivables using criteria that enable it to prioritise the management of their recovery through the agencies responsible for them or collection entities. The collection applies according to the billing cycle with respect to public home utilities.
- (4) Payment policy, generally, is 30 days from the date of the invoice.
- (5) Collaterals and endorsements received correspond to mortgage collateral on housing loans granted to key management personnel.

Transactions between the Group and its related parties are carried out under conditions equivalent to those that exist in transactions between independent parties, in terms of their purpose and conditions.

Transactions and balances with government-related entities

Surpluses paid during the year were \$1,289,652 (2018: \$1,503,504), \$703,447 (2018: \$656,457) ordinary and \$586,205 (2018: \$547,047) extraordinary. 2018 includes \$300,000 from the sale of ISAGEN.

Compensation to the Board of Directors and key Personnel of the Group:

Compensation to the members of the Board of Directors and key management personnel of the Group is as follows:

Description	2019	2018
Wages and other short-term employee benefits	27,274	26,896
Pensions and other post-employment benefits	564	479
Other long-term employee benefits	1,156	1,725
Compensation to key management personnel	28,994	29,099

Figures stated in millions of Colombian pesos

Amounts disclosed are those recognised as Costs or Expenses during the period report for compensation to key management personnel.

Note 42. Capital management

Capital of the Group includes indebtedness through the Capital Market, Commercial Banks, Development Banks, Development Agencies and Multilateral Banks, at national and international levels.

The Group manages its capital in order to plan, manage and assess the attainment of financial resources in the national and international financial markets, for strategic investments, and investment projects, through several options that optimize costs, guarantee the stability of adequate financial indicators and adequate credit rating, and minimize financial risk. For this, the following capital management policies and processes have been defined:

Financing Management: financing management comprises 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 Group and to materialize the investment and growth decisions, striving to optimizing financing costs.

The Group has not made any changes to its capital management objectives, policies and processes during the period ended 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 its financing, enabling as far as it is feasible, different financing alternatives, so that at the time performance of any long-term credit operation is required, there will be access to the source that each time has availability of competitive market conditions at the necessary time.

Below are presented the values that the Group manages as capital:

Capital management	2019	2018
Bonds and loans		
Commercial bank loans	5,317,391	5,720,503
Multilateral bank loans	3,594,944	3,865,275
Development bank loans	1,035,265	1,996,764
Bonds and securities issued	1,060,207	1,034,287
Other bonds and securities issued	9,648,198	8,206,867
Other loans	-	11,104
Total debt	20,656,005	20,834,800
Total capital	20,656,005	20,834,800

Figures stated in millions of Colombian pesos

Note 43. Financial risk management objectives and policies

The Group is exposed to financial risk, defined as the possibility of occurrence of an event that affects negatively the financial results, among which are price risk, liquidity risk, credit risk and operating risk.

Price risk refers to the changes or volatility of market variables that can generate economic losses. 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.

Credit risk refers to the possible default of payment obligations by third parties derived from contracts or financial transactions performed.

Liquidity risk is the scarcity of funds and the inability to obtain the resources at the time they are required to cover the contractual obligation and execute investment strategies. The scarcity of funds leads to the need to sell assets or to contract financing operations in unfavorable market conditions.

Finally, 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 Department is to lead the definition and implementation of strategies for integral risk management, in order to achieve adequate protection and assurance of the assets, resources and interests of the EPM Group.

The Group's policy is to manage risks that affect its activity and environment, adopting the best practices and international standards of Integrated Risk Management (IRM), as a way of facilitating compliance with the purpose, strategy, objectives and business goals, both statutory and legal. It has an information system that facilitates integral risk management, guarantees the confidentiality, availability and

reliability of the information and allows analysis and monitoring of risks and improvement plans. It has implemented an integral risk management system and deploys a methodology for the identification, analysis, assessment, control and monitoring of risks, among which are those associated with money laundering and financing of terrorism, which allows reducing vulnerability, and propose and implement effective mechanisms for the proper development of business, processes, projects and contracts. As valuation criteria there are tables for the evaluation of the consequences of the materialization of risks and probability tables, which are applicable to the different management levels defined in the methodological guide for integral risk management.

The monitoring and review activity to the integral risk management is aligned with the follow-up process to 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 for integrated risk management.
- Changes in the internal and external context that imply adjusting the treatment of identified risks or that generate new risks.
- The variation of risks in terms of frequency, probability and consequence.
- The assessment criteria for the probability and consequence of the risks.
- The implementation and effectiveness of the treatment plans.

The Group manages financial risks associated with the different levels of management by identifying the risks within the market, liquidity and credit groupings that are classified as financial risks, quantifying their impact and implementing strategies to mitigate them.

43.1. Price risk

Price risk is the risk that the fair value of the future cash flows of a financial instrument may fluctuate because of changes in market prices. The Group has identified that the financial instruments affected by price risk include:

- Cash and cash equivalents (fixed income securities and trust duties)
- Investments at fair value through profit and loss.
- Investments measured at fair value through equity.

Sensitivity analyses correspond to the financial situation as at 31 December 2019 and apply to the following concepts:

- Cash and cash equivalents (fixed income securities and trust duties)
- Investments at fair value through profit and loss.

The methodology used for measuring market risk is Value at Risk (VaR), consisting of the quantification of the maximum loss that the portfolio could present in a month with a 95% confidence level. For the quantification of VaR the methodology defined by the Superintendence of Finance in the Basic Financial Accounting Circular Letter (CE100 of 1995) is used.

	VaR COP daily	VaR % COP
VaR Total Portfolio	4.443.994.101	0,32%

43.2. 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 and loss.
- Financial liabilities measured at amortized cost-Loans and borrowings.
- Financial liabilities measured at fair value with changes in other comprehensive income-Derivative instruments.

Concentration of Interest Rate Risk materializes when there are large individual exposures and 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 assist decision making, oriented to maintaining the position to hedge it, and later the results of the executed strategies are assessed.

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 income or loss and the equity of the EPM Group would be affected by changes in variable interest rates as follows:

	Increase/decrease in basic points	Exposed value	Financial effect	
			In profit or loss before taxes	In equity
2019				
Financial assets measured at fair value through profit and loss				
Investments at fair value through profit and loss	100	1,459,726	(3,882)	(3,105)
	(100)	1,459,726	3,882	3,105
Financial liabilities measured at amortized cost				
Loans and borrowings	100	7,486,598	(74,866)	(59,893)
	(100)	7,486,598	74,866	59,893
Financial liabilities measured at fair value through other comprehensive income				
Derivative instruments	100	93,812	(6,451)	(5,160)
	(100)	93,812	6,451	5,160
2018				
Financial assets measured at fair value through profit and loss				
Investments at fair value through profit and loss	100	1,153,472	(15,084)	(12,067)
	(100)	1,153,472	15,084	12,067
Financial liabilities measured at amortized cost				
Loans and borrowings	100	7,903,448	(79,034)	(63,228)
	(100)	7,903,448	79,034	63,228
Financial liabilities measured at fair value through other comprehensive income				
Derivative instruments	100	285,968	(3,991)	(3,193)
	(100)	285,968	3,991	3,193

Figures stated in millions of Colombian pesos

The Group considers that the sensitivity analysis is representative in respect to the exposure of the interest rate risk.

43.3. Foreign exchange risk

Foreign exchange risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates.

The Group has identified that financial instruments affected by foreign exchange risk include:

- Cash and cash equivalents.
- Investments at fair value through profit and loss.
- Financial liabilities measured at amortized cost-Loans and borrowings.

- Financial liabilities measured at fair value with changes in other comprehensive income-Derivative instruments.

Exposure to foreign exchange rate risk relates, firstly, to financing activities in a currency other than the functional currency and to contracted hedging operations.

The Group manages its foreign exchange rate risk by means of hedging operations on a medium-term horizon. It is the Group's policy not to close speculative hedging transactions, so the terms of the hedging derivative instruments replicate the terms of the underlying in order to maximize the effectiveness of the hedge.

The Group covers its exposure to exchange rate fluctuations by using different hedging instruments, among which are Swaps, Forwards and Options at several terms.

Analysis of sensitivity to foreign exchange rates

The following table indicates the sensitivity to a possible reasonable change in foreign exchange rates for \$100 pesos in the currency against the U.S. dollar without considering the effect of hedge accounting. The impact is caused by the change in monetary and non-monetary assets. Holding all other variables constant, pre-tax profit or loss and equity would be affected by changes in foreign exchange rates as follows:

	Increase/decrease in basic points	Exposed value	Financial effect	
			In profit or loss before taxes	In equity
2019				
Financial assets measured at fair value through profit and loss	100	562,524	16,657	13,325
	(100)	562,524	(16,657)	(13,325)
Financial liabilities measured at amortized cost				
Loans and borrowings	100	10,851,375	(331,123)	(264,899)
	(100)	10,851,375	331,123	264,899
Financial liabilities measured at fair value through other comprehensive income				
Derivative instruments	100	277,078	8,455	6,764
	(100)	277,078	(8,455)	(6,764)
2018				
Financial assets measured at fair value through profit and loss	100	1,218,075	29,238	23,390
	(100)	1,218,075	(29,238)	(23,390)
Financial liabilities measured at amortized cost				
Loans and borrowings	100	10,843,498	(333,672)	(266,937)
	(100)	10,843,498	333,672	266,937
Financial liabilities measured at fair value through other comprehensive income				
Derivative instruments	100	2,104,966	64,773	51,819
	(100)	2,104,966	(64,773)	(51,819)

Figures stated in millions of Colombian pesos

the Group considers that the sensitivity analysis is representative in respect to the exposure of the foreign Exchange Risk.

43.4. Credit Risk

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 credit risk include:

- Cash and cash equivalents
- Other financial assets:
- Trade and other receivables

Credit risk management by type of financial instrument is detailed below and is considered representative of credit risk exposure:

Cash and cash equivalents and investments at fair value through profit or loss

For credit risk management in the EPM Group quotas are assigned per issuer, per counterparty and intermediary, taking into account the financial, risk and fundamental analysis of the entities, emphasizing shareholder support. The methodology considers the characteristics of the investment portfolio and applicable regulations. Credit risk concentration is limited since it obeys the provisions of the business rules manual for treasury operations. The description of the factors that define risk concentration is as follows:

- Quotas are updated quarterly based on the latest available financial statements of the entities analysed.
- When the value of the consolidated portfolio of temporary investments exceeds the equivalent of 10,000 minimum wages (SMMLV), no more than 20% of this value must be concentrated in the same issuer, counterparty or intermediary, with the exception of securities issued by governments that comply with current regulations.
- Securities market intermediaries, other than supervised banking establishments, may act as counterparties for transactions but cannot be considered as eligible issuers.
- Brokerage firms acting as counterparties to treasury operations must have at least the second risk rating in strength or quality of portfolio management.
- Stockbrokerage companies backed by banks, i.e. banked counterparties, must have a minimum net worth of 30,000 minimum wages (SMLMV).

Finally, efforts to avoid the concentration of risk are aimed at establishing, analysing, monitoring and controlling quotas, for which purpose the current quotas and their occupation status are controlled. Justifications related to the need to temporarily exceed the quotas are submitted for approval.

Receivables measured at amortized cost and other receivables: The EPM Group is exposed to the risk that users or customers who use public utilities may fall into arrears or default on the payment for these services. Receivables from utility customers are classified into two major groups: those arising from arrears and the other group relates to financing or payment agreements with customers as a portfolio recovery strategy or for linking new customers.

EPM Group companies evaluate at the end of each period the behavior and value of receivables to determine if there is objective evidence of portfolio impairment and thus identify its possible impact on future cash flows. The criteria used to determine objective evidence of impairment are:

- Defaults in payments by the customers.
- It is known or there is evidence of the customer entering processes of corporate restructuring or in insolvency or liquidation.

- The rise of social turmoil, be it of public order or natural disasters, which according to experience are directly correlated with default of accounts.

In order to avoid excessive concentration of risk, EPM Group companies have developed and implemented various strategies to mitigate the risk of default in the portfolio, including:

- **Persuasive collection** by making phone calls and sending letters to customers with the support of specialized collection agencies.
- Segmentation of customers to identify those of greater risk, due to their value, in order 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.
- Offsetting of receivables against payables for EPM with customer-suppliers.
- When the above strategies do not generate satisfactory results, coercive collection actions are taken by suspending and disconnecting the service.
- If the above strategies do not produce satisfactory results, the portfolio is collected through legal proceedings.

The Group considers that the value that best represents its exposure to credit risk at the end of the period, without considering any collateral taken or other credit enhancements is:

Description	2019	2018
Restricted cash and cash equivalents	629,791	445,080
Investments in debt instruments	927,077	1,277,941
Receivables *	531,228	460,261
Other receivables *	215,142	214,760
Maximum exposure to credit risk	2,303,238	2,398,042

Figures stated in millions of Colombian pesos

* Corresponds to the value of the portfolio provision.

Impairment of receivables

Expected credit losses are estimated considering the probability that an uncollectible loss may or may not occur and are recognised as profit or loss in the statement of comprehensive income against a lower value of the financial asset. The Group evaluates the credit risk of receivables on a monthly basis at the time of reporting in order to determine the value adjustment for expected credit losses on financial assets.

Breach of contract is measured in accordance with service contracts and the subsidiary's own rules in each country.

43.5. Liquidity Risk

Refers to the possibility of insufficient resources for the timely payment of operations and commitments of the entity, and thus 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 offered bonds.

The Group has identified that the financial instruments affected by liquidity risk include:

- Non-derivative financial assets.
- Variable-rate debt financial instruments
- Fixed-rate debt financial instruments

To control liquidity risk, time comparisons of figures, benchmarks and liquidity levels are made over different time horizons. From this analysis, investment strategies that do not affect the liquidity of the Group are developed, considering the cash budget and market risk analyses to assess the diversification of the sources of funds, the capacity to sell assets and the creation of contingency plans.

Generally, the main aspects considered in the analysis are:

a. Liquidity of the securities: the characteristics of the issuer, the amount of the issue and the trading volume are analysed.

b. Market liquidity: the general behavior of the market is analysed and rate forecasts are made to infer its future behavior.

c. Portfolio liquidity: cash flows are coordinated in order to determine investment strategies according to future liquidity requirements, and diversification is sought to avoid concentration of securities by issuer, rate, and/or terms.

The following table shows the remaining contractual maturity analysis for non-derivative financial assets and liabilities:

	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
2019							
Non-derivative financial assets	4.82%	1,045,747	15,949	21,796	-	9,340	1,092,832
Debt financial instruments with variable interest rate	5.80%	820,505	385,391	2,494,672	1,006,647	5,156,011	9,863,226
Debt financial instruments with fixed interest rate	6.59%	259,253	635,861	177,325	695,334	8,893,208	10,660,982
2018							
Non-derivative financial assets	4.73%	1,133,713	19,450	-	8,000	2,600	1,163,763
Debt financial instruments with variable interest rate	5.69%	1,436,375	1,363,233	315,519	1,750,339	6,694,780	11,560,246
Debt financial instruments with fixed interest rate	7.68%	1,890,752	176,553	1,751,528	176,553	5,072,613	9,067,998

Figures stated in millions of Colombian pesos

Values included in the above tables for non-derivative financial assets and liabilities may change as a result of fluctuations in the variable interest rate relative to the estimated interest rate at the end of the reporting period. The Group believes that cash flows may not occur earlier than indicated above.

The following table shows the analysis of contractual maturity of remaining derivative financial liabilities:

	Less than 1 year	From 1 to 2 years	From 2 to 3 years	From 3 to 4 years	Total contractual obligation
2019					
Swap Contracts	(13,699)	(14,592)	(17,561)	-	(45,853)
Total	(13,699)	(14,592)	(17,561)	-	(45,853)
2018					
Swap Contracts	21,520	(45,843)	12,165	(192,984)	(205,142)
Total	21,520	(45,843)	12,165	(192,984)	(205,142)

Figures stated in millions of Colombian pesos

The main method for measuring and monitoring liquidity is cash flow forecasting which is carried out in the companies of the Group and consolidated in the cash budget. As a result, its cash position is monitored daily and projections are made on an ongoing basis in order to:

- Monitor liquidity needs related to operating and investing activities associated with the acquisition and disposal of long-term assets.
- Pay, pre-pay, refinance and/or obtain new loans, according to cash flow generation capacity in the Group.

These projections consider the Group's debt financing plans, compliance with ratios, compliance with organizational objectives and applicable regulations.

Finally, in addition to managing investments and forecasting cash flow as part of the strategy of prudent liquidity risk management, in order to control the current and working capital ratios, the EPM Group seeks to guarantee adequate liquidity through the availability of long-term financing with credit alternatives.

43.6. Insurance risk

The EPM Group has incorporated a reinsurance captive company, domiciled in Bermuda, registered with REACOEX Colombia and rated A- by AM Best, and it is through this company that the reinsurance risk is transferred from the insurance company in Colombia (currently Sura) to the reinsurance market, for the policies of Material Damage + Loss of Profit, Sabotage and Terrorism, Directors and Managers, Infidelity and Financial Risks ("Crime"), Errors and Omissions, Civil Liability and Coverage for cyber risks.

As mentioned, this risk management is done through Maxseguros EPM Ltd., which consolidates the risks assumed and assigns them through reinsurance operations.

With reference to selection, cession and reinsurance management policies, these are performed on the basis of a strategy established jointly by EPM's Comprehensive Risk Management Department and Maxseguros EPM Ltd., which may change from year to year according to fluctuations in the reinsurance market and the conditions of the insured risks; however, solid backing is sought and a minimum rating of A- or equivalent is required.

The reinsurance companies with which operations were carried out in 2019 were the following:

Reinsurer	Risk score
Liberty Mutual USA	S&P A
Chubb Seguros (Federal Insurance)	S&P AA
AIG (National Union Fire 78%)	AM Best A
Swiss Re International SE	AM Best A+
Hannover Re	S&P AA-

The main claims assumed by the Group are:

Type of claim	Value of the settled claim	Value of the reserve	Value EPM Group	Value reinsurer
Subestación Malena - ESSA	66	66	66	66
Los Cururos - Los Cururos wind farm	176	176	176	176
Castilla - EPM	53	53	53	53
Marsella II - CHEC	20	20	20	20
Marsella I - CHEC	20	20	20	20
Santuario - CHEC	18	18	18	18
Supia substation - CHEC	28	28	28	28
San Diego substation - EPM	2,003	2,003	2,003	2,003
Total	2,384	2,384	2,384	2,384

Figures stated in millions of Colombian pesos

The value of the insured assets is as follows:

Type of asset	2019	2018
Small and wind power planys (<20MW)	1,422,758	1,622,096
Larger hydroelectric plants (>20MW)	9,986,526	9,708,524
La Sierra thermal plant	1,056,070	1,043,534
Assets water	916,734	838,041
Assets transmission and distribution	1,826,292	1,743,721
Corporate Assets	1,346,307	1,193,592
Assets natural gas	4,644	16,938
Total	16,559,331	16,166,446

Figures stated in millions of Colombian pesos

Note 44. 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 assessment techniques based on whether the variables used in the determination of the fair value are observable or not.

The Group determines the fair value on a recurring and non-recurring basis, as well as for disclosure purposes:

- Based on prices quoted in assets or liabilities markets identical to those the Group can access on the measurement date (level 1).
- Based on inputs applied on valuation methodologies commonly used by market participants, which are different from observable quoted prices for assets or liabilities, directly or indirectly (level 2).

- Based on internal valuation techniques of cash flow discounts or other valuation models, using variables estimated by the Group that are non-observable for the asset or liability, in absence of variables observed in the market (level 3).

During 2019 and 2018 no transfers have been made in the Group between the fair value hierarchy levels, either for transfers in or out of the levels.

Assessment techniques and variables used in the Group for measurement of fair value for recognition and disclosure:

Cash and cash equivalents: include fixed income instruments and trust duties. The latter reflects the balance of the Collective Investment Funds (CIF) held by the EPM Group. These funds are used as a savings and investment mechanism and are managed by trust companies. Through these funds, resources are invested in a portfolio of assets which are restated to fair value. The EPM Group uses the market approach as a valuation technique for this item. These items are classified in level 1 of the fair value hierarchy.

Fair value investments through profit or loss and through equity: corresponds to investments made to optimise surplus liquidity, i.e. all those resources that are not immediately allocated to the development of the activities that constitute the corporate purpose of the companies. Additionally, includes the resources given to a financial institution as collateral for the sale of the Los Cururos Wind Farm and EPM Transmisión Chile. The EPM Group uses the market approach as a valuation technique, these items are classified in level 1 of the fair value hierarchy.

Equity investments: corresponds to the resources placed in participative securities of national or foreign entities, represented in shares or parts of societal interest. The methodologies used are: the market price for those listed on the stock exchange (level 1) and the discount of cash flows for the remaining ones (level 3).

Trust rights: corresponds to the rights arising from the conclusion of commercial trust contracts. The EPM Group uses the market approach as a valuation technique, these items are classified in level 1.

Derivative instruments: The Group uses derivative financial instruments such as forward contracts, futures contracts, swaps and options to hedge various financial risks, primarily interest rate, foreign exchange and commodity price risks. Such derivative financial instruments are initially recognised at fair value on the date the derivative contract is entered into and are subsequently remeasured at fair value. The Group uses as a valuation technique for swaps the discounted cash flow, in an income approach. The variables used are: Interest rate swap curve for dollar-denominated rates, to discount dollar flows; and external interest rate swap curve for Colombian peso-denominated rates, to discount flows in Colombian pesos. These items are classified in level 2 of the fair value hierarchy.

Receivables: comprised by the receivable from the business combination for the acquisition of the subsidiary Empresas Públicas de Rionegro. For its valuation, the discount of payment flows is considered, applying the weekly collection rates for 360-day CDT published by Banco de la República; and the receivable associated with the contract for the steady supply of liquid fuel (ACPM) for the Termoeléctrica La Sierra and Termodorada plants, which is updated according to the value of the fuel unit stated in the contract. Both items are classified in level 3 of the fair value hierarchy.

Investment property: are properties (land or buildings, considered in their entirety or in part, or both) held (by the Group in its own name or under a finance lease) to earn income, capital gains or both, rather than:

- Their use in the production or supply of goods or services, or for administrative purposes; or
- Their sale in the ordinary course of business.

The Group uses two valuation techniques for these items. Within the market approach, the comparative or market method is used, which consists of deducting the price by comparison of transactions, supply and demand and valuation results of similar or comparable properties, after adjustments of time,

conformation and location. Within the cost approach, the residual method is used, which is applied only to buildings and is based on the determination of the updated cost of construction, less depreciation for age and condition. Both items are classified in level 3 of the fair value hierarchy.

Contingent considerations: originated by the business combinations in the acquisitions of the subsidiaries Espiritu Santo Energy S. de R.L. and Empresas Varias de Medellín S.A E.S.P. - EMVARIAS, the discount of payment flows is considered by applying the following discount rates: Libor rate and TES rate, respectively. These items are classified in level 3 of the fair value hierarchy.

The following table shows for each of the fair value hierarchy levels, the Group's assets and liabilities measured at fair value on a recurring basis at the cut-off date:

Fair value on a recurring basis 2019	Level 1	Level 2	Level 3	Total
Assets				
Cash and cash equivalents	629,791	-	-	629,791
Total negotiable or designated at fair value	629,791	-	-	629,791
Fixed income securities	814,271	-	-	814,271
Equity securities investments at fair value	59,005	-	-	59,005
Investments pledged as collateral	53,800	-	-	53,800
Total other investments at fair value (See Note 13)	927,077	-	-	927,077
Variable income securities other equity investments	1,955,134	-	7,947	1,963,081
Total other equity investments (See Note 13)	1,955,134	-	7,947	1,963,081
Trust in management	431,972	-	-	431,972
Total trust rights (See Note 13)	431,972	-	-	431,972
Future contracts	-	-	-	-
Derivative Swaps	-	46,148	-	46,148
Total derivatives (See Note 13)	-	46,148	-	46,148
Other receivables	-	-	51,638	51,638
Total debtors	-	-	51,638	51,638
Investment properties Urban and rural land	-	-	123,377	123,377
Investment properties Buildings and houses	-	-	16,977	16,977
Total investment properties (See Note 6)	-	-	140,354	140,354
Liabilities				
Provisioning - business combination	-	-	134,841	134,841
Total contingent consideration (See Note 27)	-	-	134,841	134,841
Total fair value on a recurring basis	3,943,974	46,148	65,098	4,055,221

Figures stated in millions of Colombian pesos

Fair value on a recurring basis 2018	Level 1	Level 2	Level 3	Total
Assets				
Cash and cash equivalents	445,080	-	-	445,080
Total negotiable or designated at fair value	445,080	-	-	445,080
Fixed income securities	1,178,685	-	-	1,178,685
Equity securities investments at fair value	93,608	-	-	93,608
Investments pledged as collateral	5,647	-	-	5,647
Total other investments at fair value (See Note 13)	1,277,940	-	-	1,277,940
Variable income securities other equity investments	1,574,358	-	54,515	1,628,873
Total other equity investments (See Note 13)	1,574,358	-	54,515	1,628,873
Trust in management	438,997	-	-	438,997
Total trust rights (See Note 13)	438,997	-	-	438,997
Future contracts	-	-	-	-
Derivative Swaps	-	192,465	-	192,465
Total derivatives (See Note 13)	-	192,465	-	192,465
Other receivables	-	-	48,180	48,180
Total debtors	-	-	48,180	48,180
Investment properties Urban and rural land	-	-	70,301	70,301
Investment properties Buildings and houses	-	-	21,080	21,080
Total investment properties (See Note 6)	-	-	91,381	91,381
Liabilities				
Provisioning - business combination	-	-	169,392	169,392
Total contingent consideration (See Note 27)	-	-	169,392	169,392
Total fair value on a recurring basis	3,736,375	192,465	24,684	3,953,524

Figures stated in millions of Colombian pesos

No transfers between levels were made during 2019.

The following tables present a reconciliation of the Group's assets and liabilities measured at fair value on a recurring basis using unobservable inputs (classified in level 3 of the fair value hierarchy) at 31 December 2019 and 2018:

Changes in Level 3 of the Fair Value Hierarchy 2019	Initial balance	Changes through profit or loss	Changes through other comprehensive income	Sales and transfers	Final balance
Assets					
Variable income securities other equity investments	54,515	-	(11,090)	(35,478)	7,947
Total other equity investments (See Note 13)	54,515	-	(11,090)	(35,478)	7,947
Other receivables	48,180	3,458	-	-	51,638
Total debtors	48,180	3,458	-	-	51,638
Investment properties Urban and rural land	70,301	39,667	88	(2,658)	107,398
Investment properties Buildings and houses	21,080	11,849	27	-	32,956
Total investment properties (See Note 6)	91,381	51,516	115	(2,658)	140,354
Liabilities					
Provisioning - business combination	169,392	(34,551)	-	-	134,841
Total contingent consideration (See Note 27)	169,392	(34,551)	-	-	134,841

Figures stated in millions of Colombian pesos

Changes in Level 3 of the Fair Value Hierarchy 2018	Initial balance	Changes through profit or loss	Changes through other comprehensive income	Sales and transfers	Final balance
Assets					
Variable income securities other equity investments	36,782	-	17,733	-	54,515
Total other equity investments (See Note 13)	36,782	-	17,733	-	54,515
Other receivables	33,206	14,974	-	-	48,180
Total debtors	33,206	14,974	-	-	48,180
Investment properties Urban and rural land	108,705	2,130	489	(41,023)	70,301
Investment properties Buildings and houses	18,035	1,743	400	902	21,080
Total investment properties (See Note 6)	126,740	3,873	889	(40,121)	91,381
Liabilities					
Provisioning - business combination	159,734	9,658	-	-	169,392
Total contingent consideration (See Note 27)	159,734	9,658	-	-	169,392

Figures stated in millions of Colombian pesos

The recorded value and estimated fair value of the Group's assets and liabilities that are not recognised at fair value in the consolidated statement of financial position, but require disclosure at fair value, at 31 December 2019 and 2018 are as follows:

2019	Recorded value	Level 2	Total
Assets			
Utilities	3,254,831	3,294,299	3,294,299
Employees	165,042	167,529	167,529
Construction contracts	2,001	2,001	2,001
Other receivables	1,660,250	1,652,240	1,652,240
Total Assets	5,082,124	5,116,069	5,116,069
Liabilities			
Development bank loans	1,035,266	1,035,266	1,035,266
Other bonds and securities issued	9,648,198	9,648,198	9,648,198
Multilateral bank loans	3,594,944	3,594,944	3,594,944
Commercial Bank Loans	5,317,391	5,317,391	5,317,391
Bonds and securities issued	1,060,207	1,060,207	1,060,207
Total Liabilities	20,656,005	20,656,005	20,656,005
Total	(15,573,881)	(15,539,936)	(15,539,936)

Figures stated in millions of Colombian pesos

2018	Recorded value	Level 2	Total
Assets			
Utilities	2,887,714	2,887,714	2,887,714
Employees	157,980	157,980	157,980
Construction contracts	1,689	1,689	1,689
Other receivables	1,166,834	1,166,834	1,166,834
Total Assets	4,214,217	4,214,217	4,214,217
Liabilities			
Development bank loans	1,996,764	1,996,764	1,996,764
Other bonds and securities issued	8,206,867	8,206,867	8,206,867
Multilateral bank loans	3,865,275	3,865,275	3,865,275
Commercial Bank Loans	5,720,503	5,720,503	5,720,503
Bonds and securities issued	1,034,287	1,034,287	1,034,287
Other liabilities	11,105	11,105	11,105
Total Liabilities	20,834,801	20,834,801	20,834,801
Total	(16,620,584)	(16,620,584)	(16,620,584)

Figures stated in millions of Colombian pesos

As of 31 December 2019 and 2018, there were no items in levels 1 and 3.

Note 45. Service concession arrangements

At the cut-off date, the Group, as operator, managed various concessions containing provisions for the construction, operation and maintenance of facilities, as well as the provision of public utilities such as water supply, wastewater collection and treatment, in accordance with applicable regulations.

The remaining period of the concessions where the Group acts as an operator is detailed below:

Entity/Agreement	Activity	Country	Concession period	Initial remaining period
Empresas Públicas de Medellín - Municipality of Itagüí	Construction of the water and sewerage networks for the provision of the service of the assigned neighborhoods. Construction of the collector parallel to the La Justa stream and sewerage on 36th Street at the level of Ditaíres Park. Construction of the collector parallel to the coverage of the La Muñoz stream. Handing over of hydraulic structures to provide the sewage service in the municipality and to provide the sanitation to the Medellín River.	Colombia	30 years (extendable)	28 years
Empresas Públicas de Medellín - Municipality of Girardota	Provision of the Aqueduct and Sewer service.	Colombia	20 years (extendable)	13 years
Empresas Públicas de Medellín - Municipality of Copacabana	Execution of works for the supply of drinking water, sewage and provision of such utilities.	Colombia	20 years (extendable)	11 years
Empresas Públicas de Medellín - Municipality of Caldas	The Municipality undertakes to make available and facilitate the use of the networks and other infrastructure for the provision of water and sewerage utilities.	Colombia	30 years (extendable)	9 years
Empresas Públicas de Medellín - Municipality of Barbosa	The Municipality undertakes to make available and facilitate the use of the networks and other infrastructure for the provision of water and sewerage utilities.	Colombia	30 years (extendable)	8 years
Empresas Públicas de Medellín - Municipality of Envigado	Provision of water and sewage utilities and construction of works for the provision of water and sewage utilities.	Colombia	10 years (extendable)	8 years
Empresas Públicas de Medellín - Municipality of Sabaneta	The Municipality undertakes to make available and facilitate the use of networks and other infrastructure for the provision of water utilities.	Colombia	10 years (extendable)	5 years
Empresas Públicas de Medellín - Municipality of La Estrella	Execution of works and provision of drinking water supply and sewerage utilities.	Colombia	10 years (extendable)	5 years
Empresas Públicas de Medellín - Municipality of Bello	Execution of works and provision of water and sewerage utilities.	Colombia	10 years (extendable)	3 years
Aguas Regionales - Municipality of San Jerónimo	The Municipality undertakes to make available the movable and immovable assets that make up the system for the provision of water and sewerage utilities.	Colombia	30 years	18 years
Aguas Regionales - Municipality of Santa Fe	The Municipality undertakes to make available the movable and immovable assets that make up the system for the provision of water and sewerage utilities.	Colombia	30 years	18 years
Aguas Regionales - Municipality of Sopetrán	The Municipality agrees to make available the movable and immovable assets that make up the system for the provision of Water and Sewerage utilities.	Colombia	30 years	18 years
Aguas Regionales - Municipality of Olaya	The Municipality agrees to make available the movable and immovable assets that make up the system for the provision of Water and Sewerage utilities.	Colombia	30 years	18 years
Aguas Regionales - Municipality of Apartadó	The Municipality agrees to make available the movable and immovable assets that make up the system for the provision of Water and Sewerage utilities.	Colombia	30 years	18 years
Aguas Regionales - Municipality of Carepa	The Municipality agrees to make available the movable and immovable assets that make up the system for the provision of Water and Sewerage utilities.	Colombia	30 years	18 years
Aguas Regionales - Municipality of Chigorodó	The Municipality agrees to make available the movable and immovable assets that make up the system for the provision of Water and Sewerage utilities.	Colombia	30 years	18 years

Entity/Agreement	Activity	Country	Concession period	Initial remaining period
Aguas Regionales - Municipality of Mutatá	The Municipality agrees to make available the movable and immovable assets that make up the system for the provision of Water and Sewerage utilities.	Colombia	30 years	18 years
Aguas Regionales - Municipality of Turbo	The Municipality agrees to make available the movable and immovable assets that make up the system for the provision of Water and Sewerage utilities.	Colombia	30 years	18 years
Aguas de Oriente - Municipality El Retiro	To operate and maintain the networks and other infrastructure received during the concept of adequate service provision.	Colombia	No explicit duration period	143 months
Adasa - Econssa Chile S.A.	To operate public utilities for the production and distribution of drinking water, the collection and disposal of wastewater, and other utilities related to these activities.	Antofagasta region (Chile)	30 years	14 years
Wastewater treatment plant Colima.	Wastewater treatment	Mexico	34 years	23 years
New processes contracted for the project PEMEX en Ciudad Madero Tamaulipas.	Wastewater treatment	Mexico	24 years	22 years
Wastewater treatment plants Morelos y Tierra Negra, Tamaulipas.	Wastewater treatment	Mexico	24 years	22 years
Wastewater treatment plants Atapaneo e Itzicuaros, en Morelia.	Wastewater treatment	Mexico	27/14 years	16/9 years
Wastewater treatment plants Tuxtla y Paso el Limón, Tuxtla Gutiérrez.	Wastewater treatment	Mexico	18 years	16 years
Wastewater treatment plant Celaya, Guanajuato.	Wastewater treatment	Mexico	18 years	12 years
Wastewater treatment plant Torreón, Coahuila.	Wastewater treatment	Mexico	17 years	3 years

Service concession arrangements for the provision of water and sewage utilities In Colombia:

The concession arrangements between the Group companies in Colombia and the municipalities establish the conditions under which the water and sewerage networks are managed, operated, and maintained to provide drinking water and wastewater treatment utilities to their inhabitants, under the terms, conditions, and rates established by the Commission for the Regulation of Drinking Water and Basic Sanitation - CRA -.

The agreements indicate the following rights and obligations for the companies of the Group as an operator in the service concession arrangement:

- The right to receive from the municipality the totality of the water and sewage networks and to have exclusivity as system operator.
- Obligation to make exclusive use of the water and sewage networks for the purposes for which they are intended, maintain and return them under the use conditions in which they were received.
- Some concession arrangements have the option to be renewed automatically for equal periods unless one of the parties expresses the intention not to continue.
- The concession arrangements do not establish the obligation of construction of property, plant and equipment elements.

Upon termination of the concession, the companies of the Group must return the water and sewage networks without any consideration to the municipalities. No changes have occurred in the terms of the concession arrangements during the period.

In Chile:

The concession arrangement of ADASA, domiciled in Antofagasta - Chile, with Empresa Concesionaria de Servicios Sanitarios S.A. - Econssa S.A. establishes the conditions for the financing and execution of works required for the maintenance, replacement and expansion of the infrastructure and facilities necessary to meet the demand for the related public utilities, during the term of the exploitation right, in the operational territory of the concession and in accordance with the Development Plan approved by ECONSSA CHILE S. A. or that which qualifies the Superintendence of Sanitation Utilities in the terms of article fifty-eight of the Sanitation Utilities General Act.

As part of the contract that granted the concession to the Company, the latter received real estate, furniture, installations, water use rights and easements, which are used in the operation of the sanitary concessions. The Company is prohibited from assigning, encumbering, leasing or constituting any right in favor of third parties over the assets received through the concession, which must be returned to the Company at the end of the contract in the condition in which they were at the beginning of the arrangement. Subsequent investments made by the Company, in that part that cannot be recovered via tariffs because its estimated use exceeds the remaining term of the Sanitary Concession, will be recovered in that portion at the end of the concession, where ECONSSA Chile S.A. will reimburse these investments, since the investment reimbursement clauses are applicable, as indicated and established in the respective transfer contract signed.

As part of its obligations, the Company must present annually specific information on the assets of use maintained under a loan agreement, as well as new investments made within the framework established in the transfer contract signed between both Companies, including a cadastre of each and every one of the facilities and networks of the sanitation utilities for the production and distribution of drinking water and for the collection and disposal of sewage.

Note 46. Operating segments

46.1 Information by segments

For management purposes, the Group is organized into segments based on its products and services, and has the following eight operating segments on which information is presented:

- Electricity Generation Segment, which activity consists in the generation of electric power and commercialization of large electric power blocks, from the acquisition or development of a portfolio of power 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, which operate at voltages below 220 kv, the commercialization of energy to the end user of the regulated market and the development of related and complementary activities. it includes the Regional Transmission System (STR), the Local Distribution System (SDL), the public lighting utility and the provision of associated services.
- Electricity Transmission Segment, which activity consists in the transportation of energy in the National Transmission System (STN), consisting of the set of lines, with their corresponding connection equipment, operating at voltages equal to or greater than 220 KV. The National Transmitter (TN) is the legal entity that operates and transports electricity in the STN or has established a company whose purpose is the undertaking of such activity.
- Segment of Distribution and Commercialization of Natural Gas, which activity consists of the gas conduction from the city gate to the final user, through medium-pressure and low-pressure pipes. It includes the sale of natural gas by different systems, among them distribution by network, vehicular natural gas, compressed natural gas and service stations.

- Water Supply Segment, which activity consists of conceptualizing, structuring, developing and operating systems to provide water. It includes performing commercial management of the portfolio of services related to water supply for different uses, in addition to the use of the productive chain, specifically in the production of energy, and the supply of raw water.
- Wastewater Management Segment, includes the activities of conceptualizing, structuring, developing and operating wastewater and solid waste management systems.
- Solid Waste Management Segment, includes performing commercial management related to these services and the use of biosolids and other byproducts of wastewater treatment and solid waste management.
- Others Segment, which corresponds to the other activities not included in the segments mentioned above. Comprises: Entidad Adaptada de Salud (EAS) and Medical and Dental Services Unit, billing and collection services for third parties, income received from investment properties (leases), social financing, EATIC Laboratory tests, provision of the specialized transport service and services associated with information and communication technologies, information services and related activities.

The Group has not added operating segments to conform these eight reportable segments; however, it performs the activity of energy sale, which consists in the purchase of electricity in the wholesale market and its sale to other market agents or to regulated or non-regulated end users. Therefore, the Group includes its financial information in the corresponding segments of this activity.

Management supervises the results of operating segments separately in order to decide on the allocation of resources and assess their performance. Each segment performance is assessed on the basis of the profit or loss from operations before taxes and discontinued operations and is measured uniformly through profit or loss from operations of the Consolidated Financial Statements.

Transfer prices between operating segments are agreed as between independent parties in a manner similar to that agreed with third parties.

2019	Electricity generation	Electricity transmission	Electricity distribution	Natural gas	Water supply	Wastewater management	Solid waste management	Other segments	Total segments	Inter-segments eliminations	Consolidated
Revenue from outer customers	2,782,352	227,603	11,939,830	865,312	1,185,344	889,999	248,073	221,101	18,359,614	-	18,359,614
Inter-segment revenue	1,265,114	75,513	502,395	30,701	41,113	53,849	991	69,396	2,039,072	(2,039,072)	-
Total net revenue	4,047,466	303,116	12,442,225	896,013	1,226,457	943,848	249,064	290,497	20,398,686	(2,039,072)	18,359,614
Costs and expenses without depreciation, amortization, provisions and impairment of PP&E and intangibles	(1,887,185)	(78,370)	(9,502,222)	(781,950)	(609,685)	(417,656)	(169,490)	(240,860)	(13,687,418)	1,863,996	(11,823,422)
Depreciation, amortization, provisions and impairment of PP&E and intangibles	(325,986)	(46,798)	(615,629)	(20,133)	(186,240)	(99,008)	(36,616)	(28,454)	(1,358,864)	27,687	(1,331,177)
Impairment of receivables	(3,742)	532	(48,562)	2,092	(6,760)	(9,282)	528	(11,994)	(77,188)	(613)	(77,801)
Other expenses	(172,133)	(634)	(28,517)	(1,329)	(9,177)	(4,697)	(2,341)	(790)	(219,618)	62,151	(157,467)
Interest income and yields	52,503	1,339	155,218	42,704	41,736	93,690	6,420	69,662	463,272	(183,050)	280,222
Finance income (other than interest income and yields)	29,605	2,769	23,264	9,322	5,494	6,963	2,880	13,918	94,215	(3,600)	90,615
Total finance income	82,108	4,108	178,482	52,026	47,230	100,653	9,300	83,580	557,487	(186,650)	370,837
Interest expenses	(328,013)	(51,113)	(347,771)	(50,387)	(89,027)	(155,555)	(5,783)	(314,983)	(1,342,632)	210,819	(1,131,813)
Finance expenses (other than interest)	(28,388)	(2,188)	(36,124)	(3,223)	(40,685)	(7,575)	(5,626)	(18,652)	(142,461)	(16,008)	(158,469)
Total finance expenses	(356,401)	(53,301)	(383,895)	(53,610)	(129,712)	(163,130)	(11,409)	(333,635)	(1,485,093)	194,811	(1,290,282)
Net foreign exchange difference	(34,376)	4,668	(10,546)	(3,889)	(909)	457	2	(11,265)	(55,858)	(25)	(55,883)
Equity-accounted investees in the results of associates and joint ventures	-	-	-	-	-	-	-	15,620	15,620	(3,827)	11,793
Effect of participation in equity investments	-	-	1,829	-	-	-	-	9,235	11,064	(1,337)	9,727
Profit or loss for the period before taxes	1,349,751	133,321	2,033,165	89,220	331,204	351,185	39,038	(228,066)	4,098,818	(82,879)	4,015,939
Income Tax	(312,388)	(28,606)	(661,617)	(26,605)	(23,726)	(44,399)	(10,716)	232,774	(875,283)	65,084	(810,199)
Discontinued operations, net of income tax	(243)	116	-	-	-	-	-	20,554	20,427	27,818	48,245
Net movement of regulatory accounts related to profit or loss for the period	-	-	(98,009)	-	-	-	-	-	(98,009)	-	(98,009)
Net profit for the period	1,037,120	104,831	1,273,539	62,615	307,478	306,786	28,322	25,262	3,145,953	10,023	3,155,976
Total assets without investments in associates and joint ventures and deferred regulatory liabilities	20,970,368	1,992,608	15,783,112	1,159,540	6,198,019	5,339,015	384,290	11,221,096	63,048,048	(9,914,126)	53,133,922
Investments in associates and joint ventures accounted for using the equity method	-	-	-	-	-	-	-	1,758,544	1,758,544	-	1,758,544
Deferred assets related to regulatory account balances	-	-	7,683	-	-	-	-	-	7,683	-	7,683
Total assets and liabilities balances of deferred regulatory accounts	20,970,368	1,992,608	15,790,795	1,159,540	6,198,019	5,339,015	384,290	12,979,640	64,814,275	(9,914,126)	54,900,149
Total liabilities	11,952,920	1,176,126	9,612,610	688,746	2,973,592	2,328,239	320,061	4,412,121	33,464,415	(2,768,836)	30,695,579
Deferred liabilities related to regulatory account balances	-	-	25,610	-	-	-	-	-	25,610	-	25,610
Total liabilities and credit balances of deferred regulatory accounts	11,952,920	1,176,126	9,638,220	688,746	2,973,592	2,328,239	320,061	4,412,121	33,490,025	(2,768,836)	30,721,189
Additions of non-current assets	1,664,109	167,281	1,049,709	20,276	635,256	296,410	16,225	121,432	3,970,698	-	3,970,698

Figures stated in millions of Colombian pesos

2018	Electricity generation	Electricity transmission	Electricity distribution	Natural gas	Water supply	Wastewater management	Solid waste management	Other segments	Total segments	Inter-segments eliminations	Consolidated
Revenue from outer customers	2,841,574	199,126	10,237,830	866,380	1,108,340	685,696	226,205	103,785	16,268,936	-	16,268,936
Inter-segment revenue	912,323	62,680	477,272	9,269	23,819	80,149	1,222	60,652	1,627,386	(1,627,386)	-
Total net revenue	3,753,897	261,806	10,715,102	875,649	1,132,159	765,845	227,427	164,437	17,896,322	(1,627,386)	16,268,936
Costs and expenses without depreciation, amortization, provisions and impairment of PP&E and intangibles	(1,884,862)	(69,523)	(8,464,646)	(737,306)	(544,452)	(361,555)	(181,451)	(202,131)	(12,445,926)	1,523,318	(10,922,608)
Depreciation, amortization, provisions and impairment of PP&E and intangibles	(587,881)	(42,755)	(591,224)	(18,145)	(174,821)	(50,492)	(13,864)	(18,518)	(1,497,700)	9,627	(1,488,073)
Impairment of receivables	(2,762)	(725)	(36,296)	(15,422)	(7,322)	(3,829)	12	(6,697)	(73,041)	3,580	(69,461)
Other expenses	(153,683)	(4,238)	(27,110)	(420)	(6,424)	(2,381)	(3,783)	(549)	(198,588)	941	(197,647)
Interest income and yields	34,677	1,332	153,998	40,466	34,983	116,011	6,245	75,715	463,427	(225,347)	238,080
Finance income (other than interest income and yields)	10,665	664	8,933	2,117	1,100	5,501	4,306	2,815	36,101	(3,345)	32,756
Total finance income	45,342	1,996	162,931	42,583	36,083	121,512	10,551	78,530	499,528	(228,692)	270,836
Interest expenses	(288,455)	(52,733)	(288,955)	(46,891)	(90,366)	(161,465)	(4)	(230,315)	(1,159,184)	229,215	(929,969)
Finance expenses (other than interest)	(21,119)	(1,098)	(41,044)	(1,631)	(19,418)	(6,980)	(5,632)	(21,601)	(118,523)	(1,301)	(119,824)
Total finance expenses	(309,574)	(53,831)	(329,999)	(48,522)	(109,784)	(168,445)	(5,636)	(251,916)	(1,277,707)	227,914	(1,049,793)
Net foreign exchange difference	(189,860)	(10,978)	(61,792)	6,245	(126)	3,463	(1)	(11,068)	(264,117)	-	(264,117)
Equity-accounted investees in the results of associates and joint ventures	-	-	-	-	-	-	-	(18,017)	(18,017)	-	(18,017)
Effect of participation in equity investments	-	-	1,285	-	-	-	-	65,137	66,422	(1,255)	65,167
Profit or loss for the period before taxes	670,617	81,752	1,368,251	104,662	325,313	304,118	33,255	(200,792)	2,687,176	(91,953)	2,595,223
Income Tax	77,216	(28,164)	(400,035)	(42,358)	156,808	(177,564)	(15,340)	191,821	(237,616)	27,010	(210,606)
Discontinued operations, net of income tax	(3,489)	(545)	-	-	-	-	-	-	(4,034)	-	(4,034)
Net movement of regulatory accounts related to profit or loss for the period	-	-	36,956	-	-	-	-	-	36,956	-	36,956
Net profit for the period	744,344	53,043	1,005,172	62,304	482,121	126,554	17,915	(8,971)	2,482,482	(64,943)	2,417,538
Total assets without investments in associates and joint ventures and deferred regulatory liabilities	21,063,269	2,133,221	14,608,450	1,139,092	6,101,078	5,204,786	322,928	11,121,931	61,694,755	(11,063,909)	50,630,846
Investments in associates and joint ventures accounted for using the equity method	-	-	-	-	-	-	-	1,746,569	1,746,569	-	1,746,569
Deferred assets related to regulatory account balances	-	-	111,868	-	-	-	-	-	111,868	-	111,868
Total assets and liabilities balances of deferred regulatory accounts	21,063,269	2,133,221	14,720,318	1,139,092	6,101,078	5,204,786	322,928	12,868,500	63,553,192	(11,063,909)	52,489,283
Total liabilities	12,767,880	1,350,728	9,143,632	702,839	2,907,281	2,445,644	247,294	4,808,783	34,374,081	(3,954,576)	30,419,505
Deferred liabilities related to regulatory account balances	-	-	33,560	-	-	-	-	-	33,560	-	33,560
Total liabilities and credit balances of deferred regulatory accounts	12,767,880	1,350,728	9,177,192	702,839	2,907,281	2,445,644	247,294	4,808,783	34,407,641	(3,954,576)	30,453,065
Additions of non-current assets	2,029,298	189,929	1,045,663	19,873	340,390	424,629	25,319	123,348	4,198,449	-	4,198,449

Figures stated in millions of Colombian pesos

46.2 Information by geographic area

Revenue from outer customers

Country	2019	2018
Colombia (country of residence of EPM)	11,548,671	10,661,294
Guatemala	2,427,919	1,975,441
Panama	2,469,950	2,056,850
El Salvador	1,043,549	887,256
Chile	541,341	503,663
Mexico	316,024	176,483
Ecuador	402	3,316
Bermuda	15,148	8,765
International inter-segment eliminations	(3,390)	(4,132)
Total countries other than Colombia	6,810,943	5,607,642
Total consolidated income	18,359,614	16,268,936

Figures stated in millions of Colombian pesos

Revenue information is based on customer location.

There is no customer in the Group who generates more than 10% of its revenue.

Non-current assets

Country	2019	2018
Colombia (country of residence of EPM)	32,823,008	31,381,539
Chile	3,074,627	3,574,900
Panama	2,365,809	2,292,551
Guatemala	2,367,158	2,218,423
El Salvador	348,644	347,581
Mexico	12,627	20,975
Total countries other than Colombia	8,168,865	8,454,430
Total non-current assets	40,991,873	39,835,969

Figures stated in millions of Colombian pesos

For these purposes, non-current assets include property, plant and equipment, intangible assets and investment property including assets from the acquisition of subsidiaries and goodwill.

Note 47. Events after the Reporting Period

Main impacts COVID19, oil trade war and representative market rate (TRM):

Following the situation caused by the coronavirus, the oil trade war and representative market exchange rate (TRM, for its Spanish initials), the EPM Group is assessing the financial impacts considering changes in the macroeconomic scenario:

TRM is identified as a variable that presents a high risk in its behaviour mainly due to:

- Lower oil prices in the face of lower global demand due to the impact of the Coronavirus on value chains and the disagreement between OPEC and Russia on the possibility of prolonging the agreement to cut oil production, with the risk of a possible price war. The Markets Directorate estimates a downward trend in the next four years with an average of 42.85 USD/barrel.
- Increased risk aversion in the global financial markets represented by the spread of COVID-19 (coronavirus). If the global volatility scenario continues, there will be a strong demand for safe haven assets such as US Dollar.
- Risk of downward revision of investment grade for Colombia, associated with the fall in oil prices due to higher current account and fiscal.
- Geopolitical and commercial tension.
- Financial market volatility associated with the U.S. election process in the second half of 2020.

For the purposes of financial results, there is a natural hedge, since the Group has companies whose functional currency is the dollar.

As for profit or loss in Colombia, the greatest risk is in the difference in foreign exchange rate for the debt contracted in dollars, which could generate an increase in the debt balances.

EPM's Electricity Generation business does not foresee major impacts, as it is highly contracted in 2020 and in the following years, its income will not significantly depend on what happens in the stock market. In addition, many of the effects that push down revenues on the stock market are mitigated by countervailing economic effects.

While the effect of the increase in TRM could increase the cost of inputs and investments, measures to eliminate tariffs for some products associated with the provision of public services could offset this increase.

Likewise, the CPI is another of the variables that are mainly impacted by:

- Stress caused by high depreciation that is transferred to prices.
- Increase in the price of raw materials from China due to shortages.
- Price indexation due to wage increases.
- Supply shocks that generate higher than expected increases in agricultural prices. If the annual devaluation is maintained, greater exchange rate pass-through strains are expected due to the increase in the price of imported goods.
- Increased cost of raw materials from China and other trading partners affected by the pandemic.
- Supply shocks associated with a shortage of supplies due to the effects on production chains of the coronavirus, which will push up food prices.
- The expectations of economic agents are no longer anchored to the goal.
- The effect of tariff indexation represents an upward risk for the basket of non-tradable and regulated services.

What is expected to impact this variable is associated with the main components of the income, the commercial operation and the investment plan for all businesses, as well as the costs and expenses of operation, maintenance and management that depend on the behavior of this variable.

In addition to the macroeconomic scenario, the government has been announcing some measures that will directly impact companies in Colombia, among them we have identified the following:

- The demand for reconnections to users in energy and water utilities.
- The non-application of real indexation to the tariff in the Water business.
- Generalized social isolation policies.
- Elimination of tariffs for certain goods and materials associated with the provision of public utilities.

In the framework of the COVID-19 crisis, the EPM Group aims to mitigate the impact on the Group's finances through measures to address the crisis such as, reviewing the investment plan for the year 2020 in order to identify what can be optimized or postponed, without putting at risk the provision of public utilities. Additionally, a thorough review of the business' operating costs is initiated to identify what can be optimized without putting the operation at risk.

In addition, in order to ensure liquidity, the Group currently has approved credit lines and quotas, which would be managed for disbursement if necessary.

Award of one of the two companies resulting from the exit of *Electricaribe* from the market:

On 20 March 2020, the EPM Group was awarded to operate CaribeMar, one of the two auction processes in which the markets of Electricaribe were separated by the National Government.

As the operator of the electrical energy utility in the Caribbean Region, the Group is committed to growth with sustainability in the electricity sale and distribution market in Colombia, as a contribution to the growth of the country and the quality of life of the inhabitants of the departments of Bolívar, Cesar, Córdoba and Sucre. When it starts operating in the Caribbean Region, EPM Group will reach a 35% share in the energy distribution and sale market in Colombia, extending its services to a population of 19 million people. CaribeMar will have 1.5 million new customers in the Caribbean Region in the coming months. This new business will include investments of around \$4,000 billion over the next five years.

After the award of CaribeMar, the National Government must close the financial transaction to purchase 100% of the shares, incorporate the new company and prepare and deliver the assets and liabilities included. Only, until that moment, EPM Group will take control of the operation.

With this operation, the Group becomes the main operator of the national electricity system, both in electricity distribution and sales and assumes the challenge and commitment to contribute to the quality of life of the community, through the improvement of the energy utility, the care for the environment and the contribution to the growth and competitiveness of the Caribbean Region.

After the date of presentation of the separate financial statements and before the date of authorization of their publication, no other relevant facts were presented that would imply adjustments to the figures.

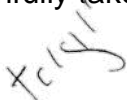
Certification for the Financial Superintendence of Colombia

Álvaro Guillermo Rendón López, in his capacity as the Legal Representative of the industrial and commercial state-owned company of a municipal order called Empresas Públicas de Medellín E.S.P., and in compliance with Article 37 of Law 222/1995 and Article 46 of Law 964 of July 8, 2005

HEREBY CERTIFIES:

That the consolidated financial statements and other reports relevant to the public do not contain any defects, inaccuracies or misstatements that would prevent the true financial position or operations of EPM Group at December 31, 2019 from being known.

The affirmations contained therein have been previously verified in accordance with the Accounting and Financial Reporting Standards accepted in Colombia (NCIF) and adopted by the General Accounting Office of Colombia through Resolution 037/2017 and Resolution 049/2019. These accounting and financial reporting standards are based on the International Financial Reporting Standards adopted in Colombia and issued by the International Accounting Standards Board (IASB), as well as interpretations issued by the Interpretations Committee, and their balances have been faithfully taken from the accounting books.


Álvaro Guillermo Rendón López, CEO
Colombian ID No. 70.550.851

This certification has been issued in Medellín on March 26, 2020 to comply with the requirements of the Financial Superintendence of Colombia for securities issuers.