Sustainability Report 2023

We promote the achievement of the **SDGs** with **actions that transform lives.**

SUSTAINABLE DEVELOPMENT GOALS

6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS

Grupo·epm

Table of contents

p.

Our Group 4

- Our Group 5
- Management Report EPM 67
- Corporate Governance Report 186

Sustainable management 381

General information 382

- About this Report 383
- Our Sustainability Model 420
- Commitments and sinergies in sustainability 465
- Correspondence with sustainability initiatives 478
- Stakeholders 495
- Precautionary principle 537

Material issues 540

- Access and purchasability 541
- Water and biodiversity 585
- Employee wellbeing and adaptability 657
- Quality and safety of products and services 721
- Climate change 772

Table of contents

p.

- Human Rights 814
- Renewable energies 860
- Corporate Governance 883
- Financial strength 899
- Technology and innovation 956
- Transparency 993

Supplementary issues 1035

- Sustainable production and consumption 1036

Financial management 1062

- EPM's financial management 1063
- EPM's certification 1296
- Grupo EPM's financial management 1303
- Grupo EPM's certification 1635

Hidroituango Power Plant 1642

Glossary of acronyms 1719

Sustainability Report 2023

Our Group

‹ Back to content

‹ Back to content

Sustainability Report 2023

Our Group

Grupo·epm

Table of contents

Our Group

p.

- About us 2023 7
- Our history 34
- Comprehensive risk management 43
- How are we organized 56
- Our goods and services supply cycle 58

‹ Back to content

Sustainability Report 2023

About us 2023

Grupo·epm

About us 2023

We are already
17,297
employees in
Grupo EPM

Our business

6 countries

8 business

47 companies

- Power Generation
- Power Transmission
- Power Distribution
- Gas
- Water Supply
- Wastewater Management
- Solid Waste Management
- Marketing of New Solutions

Some management indicators

Environmental Management Index

78 %

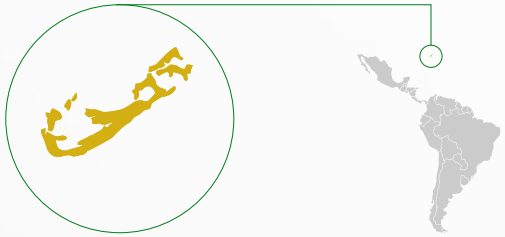
94 %

CSR Track Record of Grupo EPM

Presence in Latin America

Bermudas

max seguros epm



México

Ticsa

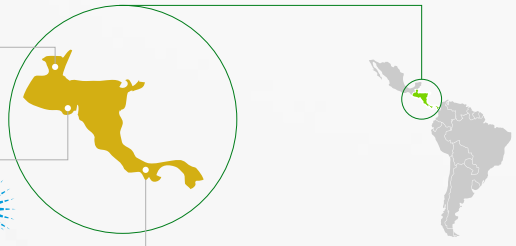
Guatemala

epm Guatemala

El Salvador

DELSUR

Panamá



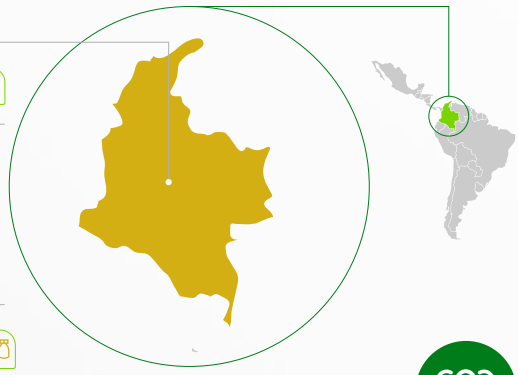
ENSA · HIDROECOLÓGICA DEL TERIBE, S.A. · promobiliaria

- Somos Servicios Integrados S.A.
- EPM Renovables

- **Somos Servicios Integrados S.A.** is a company of Grupo EPM incorporated in September 2023. The Panamanian company established a branch in Colombia with the purpose of purchasing from EPM the assets associated with the social financing program called "Somos". Its objective is to continue developing and operating the social finance business mainly in Antioquia.
- **EPM Renovables,** a subsidiary of EPM established during 2023 to develop through it the growth strategy in renewable energies, mainly in Central America.

Colombia

epm
afinia
CENS
chec
edeq
ESSA
Aguas de Malambo
Aguas del Atrato
Aguas del Oriente
aguas nacionales
aguas regionales
envarias
Fundación epm



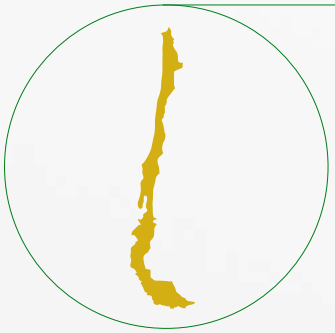
External jobs created in Colombia

37,600

Chile

Hidrosur

aguas antofagasta



Investment Vehicle

Grupo EPM has six companies that drive growth in the different territories in which it operates, five of them abroad and one in Colombia.

México

epm® México

Guatemala

El Salvador

Deca II*

*Distribución Eléctrica Centroamericana Dos S.A.

Panamá

EPM Latam

PDG**

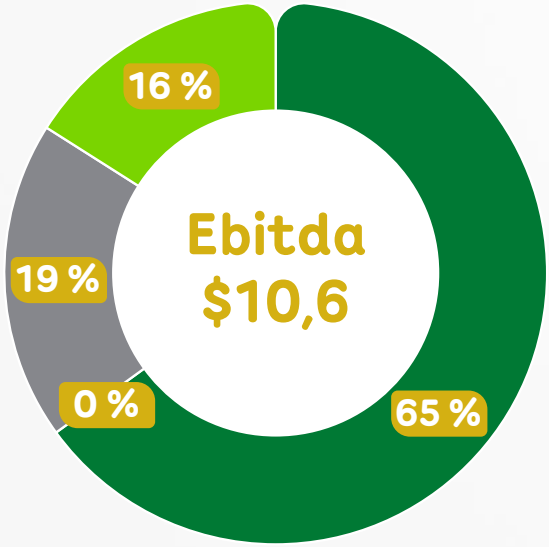
**Panamá Distribution Group

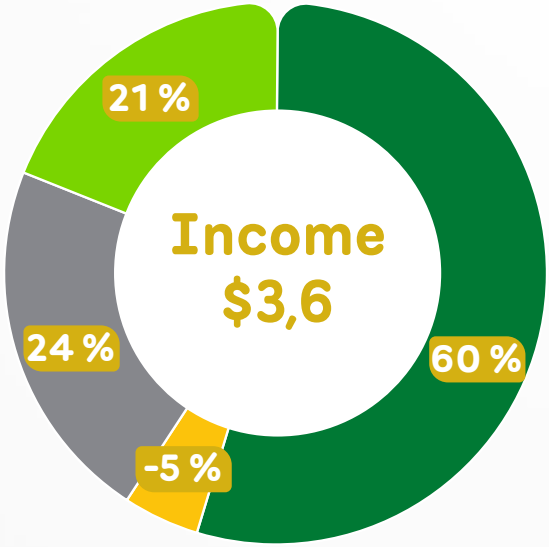
2023 financial Results

Grupo·epm

Results	Grupo EPM	Variation	EPM parent	Variation
Revenues	$37,5	+16 %	$16,2	+21 %
Operating income (loss)	$7,7	-3 %	$5,1	+4 %
Operating margin	**20 %**	**-17 %**	**31 %**	**-14 %**
Ebitda	$10,6	+9 %	$6,8	+20 %
Ebitda margin	**28 %**	**-7 %**	**42 %**	**-1 %**
Net income	$3,6	-14 %	$3,8	+24 %
Net margin	**9 %**	**-26 %**	**23 %**	**+3 %**

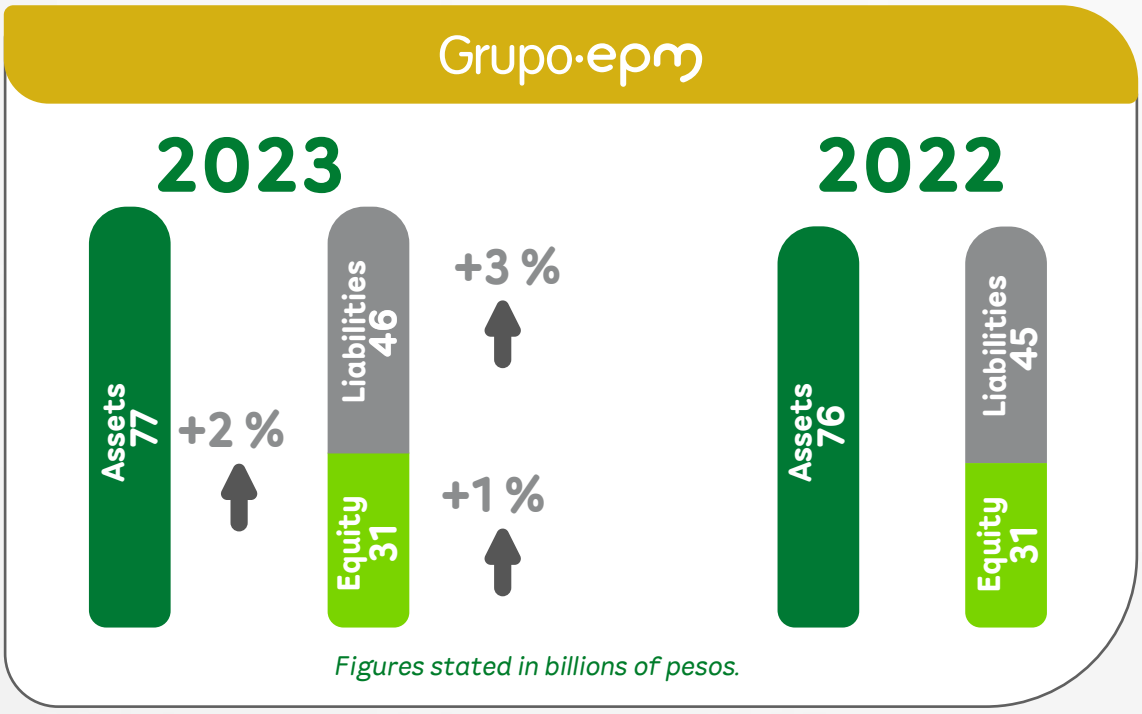
Figures stated in billions of Colombian pesos.





EPM | Power subsidiaries Colombia | Foreign affiliates | Water affiliates Colombia

Figures stated in billions of Colombian pesos.



Power Grupo EPM

Power Generation Efficiency Indicators

Thermal power efficiency of larger plants (>20MW)

Actual / projected availability	83.75 %	81.57 %
Energy penalized / generated	4.05 %	4.266 %

Hydraulic power efficiency

Larger Plants (>20 MW) (excluding Hidroituango power plant)			
Actual availability	94.07 %	62.68 %	98.04 %
Penalized energy	0.123 %	0.44 %	N.A
Hidroituango			
Actual availability	79.5 %		
Penalized energy	0.316 %		
Smaller Plants (<20 MW)			
Actual availability	64.76 %	49.04 %	68.64 %

Wind power efficiency

Actual availability	74.43 %

EPM ESSA CHEC HET

Source: *Power Generation Vice-Presidency*

Power Generation Mix

Type of source		Generation system		Net production (GWh)		Net effective capacity (MW)			
		2023		2023		2023		Projection 2025	
		Grupo EPM	EPM	Grupo EPM	EPM	Grupo EPM	EPM	Grupo EPM	EPM
Wind farms		1	1	33	33	0	0	0	0
Solar farms		0	0	0	0	0	0	N.A.	30
Solar self-generation (large customers)		50	50	24	24	22	22	26	26
Thermal power plants	Greater than 20 MW	2	1	242	215	483	433	N.A.	N.A.
	Less than 20 MW (self-generation)	1	0	3	0	5	N.A.	N.A.	N.A.
Hydraulic power plants	Greater than 20 MW	12	9	18,484	17,897	4,087	3,890	N.A.	N.A.
	Less than 20 MW	25	18	616	426	172	130		
	Total hydraulic	37	27	19,100	18,323	4,259	4,020		
Total		**91**	**79**	**19,401.33647**	**18,594.44207**	**4,769**	**4,475**	**26**	**56**

Source: *Power Generation Vice-Presidency*

Installed power transmission and distribution capacity 2023

Universalization of the service - Colombia

6,893,435	Total customers
99.01 %	Universalization (%)

Service Coverage - Other Countries (El Salvador, Guatemala and Panamá)

2,491,288	Total customers
94.16 %	Service coverage (%)

Electric power transmission and distribution networks (km)

Grupo EPM	EPM
308,572	104,388

Power distribution and transmission transformers

Grupo EPM	EPM
432,148	153,145

Substation transformation capacity (MVA)

Grupo EPM	EPM
45,429	15,569

Source: *Power Transmission and Distribution VP and Commercial VP*

Grupo EPM electric power transmission and distribution networks (in kilometers)

Voltage level	Area	Underground	Total
Ultra-high transmission voltage (Voltage ≥ 220 kV)	1,379	6	**1,385**
High transmission voltage (57.5 kV ≤ Voltage < 220 kV)	5,483	37	**5,520**
Medium transmission voltage (30 kV ≤ Voltage < 57.5 kV)	8,542	101	**8,643**
Medium transmission and distribution voltage (1 kV ≤ Voltage < 30 kV)	137,497	2,878	**140,376**
Low distribution voltage (Voltage < 1 kV)	146,960	5,688	**152,648**
Total kilometers	**299,860**	**8,711**	**308,572**

Source: *Power Transmission and Distribution Vice-Presidency*

Note: classification according to international standards based on Retie standard NTC 1340.

EPM electric power transmission and distribution networks (in kilometers)

Voltage level	Area	Underground	Total
National Transmission System (STN) (Voltage ≥ 220 kV)	1,075	6	**1,081**
Level 4: Regional Transmission System (RTS) (57.5 kV ≤ Voltage < 220 kV)	1,683	4	**1,687**
Level 3: Local Distribution System (LDS) (30 kV ≤ Voltage < 57.5 kV)	2,337	17	**2,354**
Level 2: Local Distribution System (LDS) (1 kV ≤ Voltage < 30 kV)	50,459	1,064	**51,523**
Level 1: Local Distribution System (LDS) (Voltage < 1 kV)	45,265	2,478	**47,743**
Total kilometers	**100,820**	**3,568**	**104,388**

Source: *Power Transmission and Distribution Vice-Presidency*

Note: classification according to CREG Resolutions 025 of 1995 and 015 of 2018. Level 4 (STR) is remunerated in the distribution business together with levels 1, 2 and 3.

Detail of the power service by company 2023

Service universalization - Colombia		
epm	Total customers	2,835,290
	Universalization (%)	99.71 %
chec	Total customers	552,347
	Universalization (%)	100 %
edeq	Total customers	217,741
	Universalization (%)	99.85 %
CENS	Total customers	612,329
	Universalization (%)	96.79 %
ESSA	Total customers	921,080
	Universalization (%)	98.71 %
afinia	Total customers	1,758,496
	Universalization (%)	99.73 %
Energy customers in Colombia 6,893,435		97.29 %

Service Coverage - Other Countries		
DELSUR	Total customers	447,223
	Service coverage (%)	95 %
ENSA	Total customers	551,136
	Service coverage (%)	88.60 %
eegsa	Total customers	1,486,735
	Service coverage (%)	98.87 %
Energy customers outside Colombia 2,485,094		94.16 %

Grupo·epm *Energy service customers:* ***9,383,002***

Source: *Power Transmission and Distribution Vice-Presidency*

Total customers: includes homes or facilities that receive the residential utility service and those without service due to non-payment

Grupo EPM power transmission and distribution transformers (in units)

Item	List	2023
Ultra-high voltage power transformers (Voltage de salida ≥ 220 Kv)	Units	15
	MVA	1,810
High voltage power transformers (57.5 kV ≤ Voltage de salida < 220 kV)	Units	279
	MVA	12,859
Medium voltage power transformers (30 kV ≤ Voltage de salida < 57.5 kV)	Units	290
	MVA	8,233
Medium voltage power and distribution transformers (1 kV ≤ Voltage de salida < 30 kV)	Units	408
	MVA	3,258
Low voltage distribution transformers (Voltage de salida < 1 kV)	Units	431,156
	MVA	19,269
Total	**Units**	**432,148**

Source: *Power Transmission and Distribution Vice-Presidency*

EPM power transmission and distribution transformers (in units)

Item	List	2023
STN power transformers (National Transmission System) (output voltage ≥ 220 Kv)	Units	3
	MVA	450
Level 4 STR power transformers (Regional Transmission System) (57.5 kV ≤ output voltage < 220 kV)	Units	68
	MVA	4,180
Level 3 SDL power transformers (Local Distribution System) (30 kV ≤ output voltage < 57.5 kV))	Units	71
	MVA	3,295
Level 2 SDL power transformers (Local Distribution System) (1 kV ≤ output voltage < 30 kV	Units	116
	MVA	1,133
Level 1 SDL distribution transformers (Local Distribution System) (output voltage < 1 kV)	Units	152,887
	MVA	6,511
Total	**Units**	**153,145**

Source: *Power Transmission and Distribution Vice-Presidency*

Note: classification according to CREG Resolutions 025 of 1995 and 015 of 2018.

1.1. Marketing of energy of Grupo EPM

Total Energy Purchases Grupo EPM Commercialization (GWh) - Energy

Organization	2021	2022	2023	Variation 2023 / 2022
EPM	11,548	11,914	**11,966**	0 %
Afinia	8,336	8,410	**8,798**	5 %
ESSA	2,246	2,235	**2,367**	6 %
CENS	1,311	1,607	**1,736**	8 %
CHEC	968	983	**1,033**	5 %
EDEQ	439	453	**467**	3 %
EPM Guatemala-Eegsa	4,707	4,905	**5,118**	4 %
ENSA	4,232	4,338	**4,595**	6 %
Delsur	1,797	1,768	**1,845**	4 %
Total	**35,584**	**36,613**	**37,925**	**4 %**

Energy purchases EPM Group Commercialization Regulated or Captive Market (GWh) - Energy

Organization	2021	2022	2023	Variation 2023 / 2022
EPM	7,027	7,213	**7,485**	4 %
Afinia	7,537	7,381	**7,955**	8 %
ESSA	2,246	2,235	**2,367**	6 %
CENS	1,311	1,607	**1,736**	8 %
CHEC	968	983	**1,033**	5 %
EDEQ	439	453	**467**	3 %
EPM Guatemala-Eegsa	3,753	3,844	**4,024**	5 %
ENSA	3,421	3,476	**3,704**	7 %
Delsur	1,797	1,768	**1,845**	4 %
Total	**28,499**	**28,960**	**30,616**	**6 %**

Energy Purchases Grupo EPM Commercialization in Non-regulated or Free Market (GWh) - Energy

Organization	2021	2022	2023	Variation 2023 / 2022
EPM	4,521	4,701	**4,481**	-5 %
Afinia	799	1,029	**843**	-18 %
ESSA	0	0	**0**	0 %
CENS	0	0	**0**	0 %
CHEC	0	0	**0**	0 %
EDEQ	0	0	**0**	0 %
EPM Guatemala-Eegsa	954	1,060	**1,094**	3 %
ENSA	811	862	**891**	3 %
Delsur	0	0	**0**	0 %
Total	**7,085**	**7,652**	**7,309**	**-4 %**

Energy Purchases Grupo EPM Commercialization by Segment (GWh)-Energy

Segment - Sector	2021	2022	2023	Variation 2023 / 2022
Energy Purchases Regulated or captive market	28,499	28,960	**30,616**	6 %
Energy Purchases Non-regulated or free market	7,085	7,652	**7,309**	-4 %
Total	**35,584**	**36,612**	**37,925**	**4 %**

Regulated or Captive Market Customers Grupo EPM Commercialization - Energy

Segment - Sector	2021	2022	2023	Variation 2023 / 2022
Residential	8,043,625	8,313,313	**8,568,303**	3 %
Commercial	636,712	649,638	**666,674**	3 %
Industrial	44,290	46,431	**47,713**	3 %
Others	73,575	76,917	**68,996**	-10 %
Total	**8,798,202**	**9,086,299**	**9,351,686**	**3 %**

Source: *Commercial Vice-Presidency and Transmission and Distribution Vice-Presidency Energy*

Non-regulated or Free Market Customers Grupo EPM Commercialization - Energy

Segment - Sector	2021	2022	2023	Variation 2023 / 2022
Non-regulated or free market customers - Residential	0	0	**0**	**0 %**
Non-regulated or free market customers - Commercial	1,125	1,231	**1,017**	**-17 %**
Non-regulated or free market customers - Industrial	1,124	1,153	**1,128**	**-2 %**
Non-regulated or free market customers - Others	241	238	**3,898**	**1,538 %**
Total	**2,490**	**2,622**	**6,043**	**130 %**

Customers by Markets Grupo EPM Commercialization - Energy

Segment - Sector	2021	2022	2023	Variation 2023 / 2022
Regulated market customers - Energy	8,798,202	9,086,299	**9,351,686**	**3 %**
Non-regulated market customers - Energy	2,490	2,622	**6,043**	**130 %**
Total	**8,800,692**	**9,088,921**	**9,357,729**	**3 %**

Source: *Commercial Vice-Presidency and Transmission and Distribution Vice-Presidency Energy*

Customers by Area Grupo EPM Commercialization - Energy

Area	2021	2022	2023	Variation 2023 / 2022
Clients served in the urban area	6,731,891	6,950,672	**7,150,804**	**3 %**
Clients served in rural areas	2,068,801	2,138,249	**2,206,925**	**3 %**
Total	**8,800,692**	**9,088,921**	**9,357,729**	**3 %**

Source: *Commercial Vice-Presidency and Transmission and Distribution Vice-Presidency Energy*

Consumption Regulated or Captive Market Grupo EPM Commercialization - Energy (GWh)

Segment - Sector	2021	2022	2023	Variation 2023 / 2022
Residencial	15,786	14,162	**14,831**	5 %
Comercial	5,149	5,490	**5,929**	8 %
Industrial	2,166	2,147	**2,199**	2 %
Others	2,185	2,302	**2,267**	-2 %
Total	25,286	24,101	25,226	5 %

Source: *Commercial Vice-Presidency and Transmission and Distribution Vice-Presidency Energy*

Consumption Non-Regulated or Free Market Grupo EPM Commercialization - Energy (GWh)

Segment - Sector	2021	2022	2023	Variation 2023 / 2022
Energy consumption by customers in the non-regulated or free market - Residential	0	0	**0**	0 %
Energy consumption by customers in the non-regulated or free market - Commercial	1,944	1,771	**1,761**	-1 %
Energy consumption by customers in the non-regulated or free market - Industrial	4,748	5,120	**4,868**	-5 %
Energy consumption by customers in the non-regulated or free market - Other	518	551	**577**	5 %
Total	7,210	7,442	7,206	-3 %

Source: *Commercial Vice-Presidency and Transmission and Distribution Vice-Presidency Energy*

Consumption by Market Grupo EPM Commercialization - Energy (GWh)

Segment - Sector	2021	2022	2023	Variation 2023 / 2022
Regulated market consumption - Energy	25,286	24,101	**25,226**	**5 %**
Non-regulated market consumption - Energy	7,210	7,442	**7,206**	**-3 %**
Total	**32,496**	**31,543**	**32,432**	**3 %**

Source: *Commercial Vice-Presidency and Transmission and Distribution Vice-Presidency Energy*

Total Billing Grupo EPM Commercialization - Energy (COP million)

Organization	2021	2022	2023	Variation 2023 / 2022
EPM	4,856,418	5,977,132	**6,708,944**	**12 %**
Afinia	2,979,697	3,974,913	**4,803,369**	**21 %**
ESSA	1,082,761	1,300,609	**1,577,027**	**21 %**
CENS	783,480	928,993	**1,166,915**	**26 %**
CHEC	518,091	580,630	**689,123**	**19 %**
EDEQ	231,987	273,796	**329,057**	**20 %**
EPM Guatemala-Eegsa	3,312,678	4,497,115	**4,106,107**	**-9 %**
ENSA	2,074,605	3,151,564	**2,721,675**	**-14 %**
Delsur	1,188,939	1,656,818	**1,201,164**	**-28 %**
Total	**17,028,656**	**22,341,570**	**23,303,381**	**4 %**

Billing Regulated or Captive Market Grupo EPM Commercialization - Energy (COP million)

Organization	2021	2022	2023	Variation 2023 / 2022
EPM	3,159,250	3,838,194	**4,597,240**	20 %
Afinia	2,670,223	3,473,528	**4,349,206**	25 %
ESSA	1,082,761	1,300,609	**1,577,027**	21 %
CENS	783,480	928,993	**1,166,915**	26 %
CHEC	518,091	580,630	**689,123**	19 %
EDEQ	231,987	273,796	**329,057**	20 %
EPM Guatemala-Eegsa	2,848,750	3,743,723	**3,376,690**	-10 %
ENSA	1,858,122	2,868,980	**2,475,454**	-14 %
Delsur	1,188,939	1,656,818	**1,201,164**	-28 %
Total	**14,341,603**	**18,665,271**	**19,761,876**	**6 %**

Billing Non-Regulated or Free Market Grupo EPM Commercialization - Energy (COP million)

Organization	2021	2022	2023	Variation 2023 / 2022
EPM	1,697,168	2,138,938	**2,111,703**	-1 %
Afinia	309,474	501,385	**454,163**	-9 %
ESSA	0	0	**0**	0 %
CENS	0	0	**0**	0 %
CHEC	0	0	**0**	0 %
EDEQ	0	0	**0**	0 %
EPM Guatemala-Eegsa	463,928	753,392	**729,417**	-3 %
ENSA	216,483	282,585	**246,221**	-13 %
Delsur	0	0	**0**	0
Total	**2,687,053**	**3,676,300**	**3,541,504**	**-4 %**

Billing Regulated or Captive Market by Segment Grupo EPM Commercialization - Energy (COP million)

Segment - Sector	2021	2022	2023	Variation 2023 / 2022
Residential	8,333,974	10,530,259	**11,525,598**	9 %
Commercial	3,529,440	4,805,600	**5,169,375**	8 %
Industrial	1,170,188	1,480,284	**1,389,542**	-6 %
Others	1,308,001	1,849,127	**1,677,361**	-9 %
Total	**14,341,603**	**18,665,271**	**19,761,876**	**6 %**

Source: *Vice-Presidency Commercial and Power Transmission and Distribution Vice-Presidency*

Billing Non-Regulated or Free Market by Segment Grupo EPM Commercialization - Energy (COP million)

Segment - Sector	2021	2022	2023	Variation 2023 / 2022
Energy Sales to Customers in the Non-Regulated or Free Market – Residential	0	0	**0**	-100 %
Energy Sales to Customers in the Non-Regulated or Free Market – Commercial	642,291	930,777	**847,615**	-9 %
Energy Sales to Customers in the Non-Regulated or Free Market – Industrial	1,804,017	2,430,391	**2,375,668**	-2 %
Energy Sales to Customers in the Non-Regulated or Free Market - Other	240,745	315,131	**318,615**	2 %
Total	**2,687,053**	**3,676,299**	**3,541,898**	**-4 %**

Source: *Commercial Vice-Presidency and Transmission and Distribution Vice-Presidency Energy*

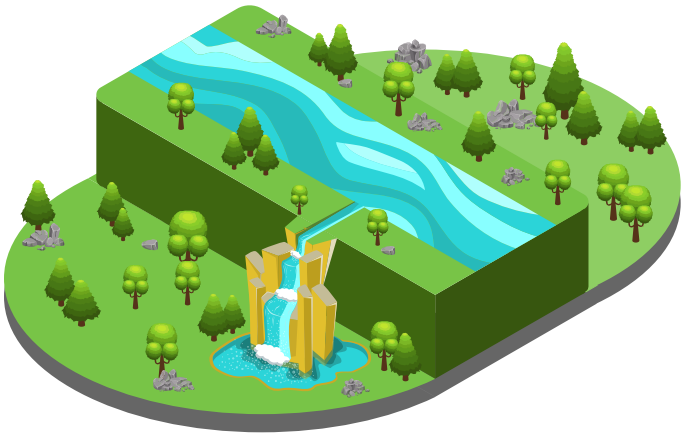
Total Billing by Market Grupo EPM Commercialization - Energy (COP million)

Segment - Sector	2021	2022	2023	Variation 2023 / 2022
Billing Regulated Market - Energy (COP million)	14,341,603	18,665,271	**19,761,876**	6 %
Billing Non-Regulated Market - Energy (COP million)	2,687,053	3,676,299	**3,541,505**	-4 %
Total	**17,028,656**	**22,341,570**	**23,303,381**	**4 %**

Source: *Commercial Vice-Presidency and Transmission and Distribution Vice-Presidency Energy*

Water and Sanitation Grupo EPM

Installed water capacity indicators



Installed capacity

	Grupo EPM	EPM
Drinking water treatment plants	39	13
Drinking water treatment capacity (m^3/s)	20.21	15.46

Water distribution

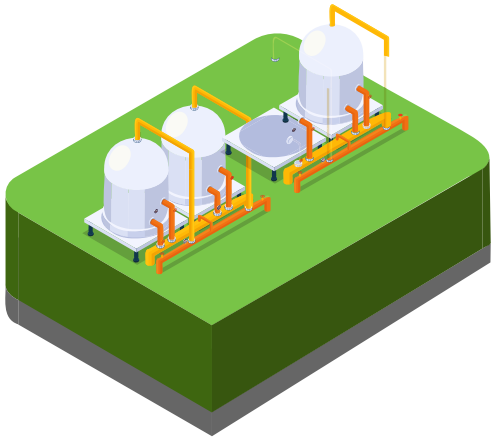
	Grupo EPM	EPM
Primary distribution networks (Km)	562	298
Secondary distribution networks (Km)	5,836	3,961

	Grupo EPM	EPM
Net drinking water production (million de m^3)	426	315

Grupo EPM ■ EPM ■

Source: *Water and Sanitation Vice-Presidency*

Installed sanitation capacity indicators



Cleaning

Tons transported	683,257
Tons entered at La Pradera for final disposal	1,235,995
Leachate treatment plants	1
Leachate treated (m^3)	340,074

Installed capacity

	Grupo EPM	EPM
Wastewater treatment plants	24	4
Wastewater treatment capacity (m^3/s)	14.71	2.0125

Collection and transportation

	Grupo EPM	EPM
Transportation networks (km)	748	428
Secondary transportation networks (km)	5,909	4,560

Water treated in wastewater plants (million de m^3)

Grupo EPM	EPM
322	54

Source: *Water and Sanitation Vice-Presidency*

Water and sanitation service coverage 2023

Company		Aqueduct	Sanitation	Cleaning
epm	Total customers	1,424,192	1,406,377	N.A.
	Universalization (%)	98.13 %	96.27 %	N.A.
Aguas del Oriente	Total customers	6,703	6,449	N.A.
	Universalization (%)	100 %	100 %	N.A.
aguas regionales	Total customers	112,297	91,374	N.A.
	Universalization (%)	93.6 %	78.59 %	N.A.
Aguas de Malambo	Total customers	26,115	23,846	N.A.
	Universalization (%)	91.98 %	78.82 %	N.A.
emvarias	Total customers	N.A.	N.A.	965,257
	Universalization (%)	N.A.	N.A.	99.33 %
aguas antofagasta	Total customers	188,783	188,594	N.A.
	Universalization (%)	100 %	100 %	N.A.
Hidrosur	Total customers	1		
	Total customers	**1,758,091**	**1,716,640**	**965,257**
	Universalization (%) in Colombia	**97.55 %**	**94.55 %**	**99.33 %**

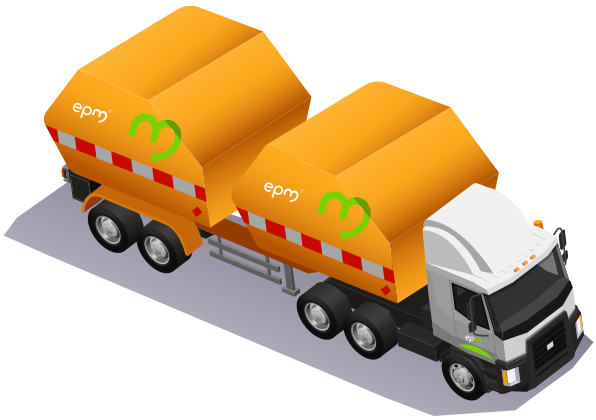
Note: TICSA has no direct customers, but indirectly serves 3,260,160 customers (benefited population) through the operation of 12 wastewater treatment plants.

Hidrosur is a company that sells treated water to the mining industry in the Non-Regulated Market in Chile.

Gas Grupo EPM

Installed Gas Capacity

EPM gas service coverage



* ***Total customers:*** *includes homes or facilities that receive the public residential utility and those without service due to non-payment.*

Regulating and measuring stations	26
Decompressor stations	64
Receiving and dispatch stations *(City Gate)*	9

Measuring, regulating and decompression stations: **90**

Compressor station (2,000 m³/h): **1**

Polyethylene networks in Antioquia (km): **8,758**

Total customers*: **1,472,475**

Service universalization (%): **86.60 %**

Grupo EPM

Source: *Gas Vice-Presidency*

‹ Back to content

Sustainability Report 2023

Our history

Grupo·epm

Our History

1955

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

1997

EPM *transformed into a* ***State-owned industrial and commercial company*** *to comply with Law 142 of 1994.*

Aguas del Oriente

1999

Aguas del Oriente *is born to meet the water and sewage demand of the municipality of El Retiro.*

2000

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

2002

EPM Bogotá Aguas is created, *which would later become:*

aguas nacionales

Grupo·epm

2003

EPM creates EPM Inversiones S.A. *ands acquires the affiliates* ***CHEC, EDEQ y HET.***

Central Hidroeléctrica de Caldas

Hidroecológica del Teribe, Panamá

Empresa de Energía del Quindío

2005

EPM *adopts a new strategy y* ***changes its organizational structure.***

2006

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

2006 - 2007

EPM becomes a partner *to the regional companies* ***Aguas de Urabá and Aguas de Occidente.***

Aguas de Urabá

Aguas de Occidente

2007

The regional ***energy*** *market* ***of Antioquia*** *becomes integrated.*

2009

EPM** participates in the **creation of Empresas Públicas de Oriente** and acquires the affiliates **CENS and ESSA.

CENS
Centrales Eléctricas del Norte de Santander

ESSA
Electrificadora de Santander S.A.

2010

EPM invests in Central American energy companies** that already have a foothold in the region and acquires the **holding company DECA II and its affiliates.

2011

***EPM acquires, through DECA II, the company El Salvador Holdings Ltda.** which in turn owns the company Delsur (Distribuidora de Electricidad del Sur) in El Salvador, through the acquisition of the company Panamá Distribution Group S.A. ENSA (Elektra Noreste S.A.) in Panama.*

DELSUR ENSA

2011

EPM formally assumes the financing, construction, maintenance and commercial operation of the Ituango Hydroelectric Project, *which will become the largest power generation plant in Colombia, with a capacity of 2,400 megawatts.*

It acquires 85 % of the state-owned company Aguas de Malambo S.A. E.S.P.

Aguas de Malambo

2012

EPM Mexico is created *as a platform for the different projects that may be developed in that country.Tras el cumplimiento anticipado*

After meeting its large and ambitious target early in 2011, ***the Group defined a new strategic direction and sets its sights on 2022,*** *embarking on a transformation process.*

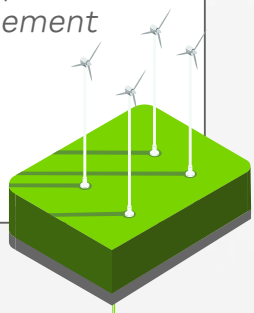
epm México

epm Chile

2013

EPM Chile is born as a holding *to leverage the growth plan of the Entity in the south of the American continent.*

Through it, Grupo EPM begins construction of the 109.6 megawatt ***Los Cururos wind farm,*** *in the Coquimbo region of northern Chile under a turnkey agreement with the Danish firm Vestas*



Ticsa

2013

Grupo EPM is transforming itself to meet its goals for the year 2022.

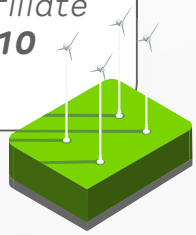
In Mexico, it acquires a majority stake in Ticsa, a holding company engaged in the design, construction *operation and commissioning of wastewater treatment plants*

2013

With the acquisition of Emvarias, Grupo EPM *expands its portfolio to include sanitation, waste collection, transportation and final disposal services*

2014

Grupo EPM, through its *aaffiliate EPM Chile,* ***inaugurates the 110 MW Los Cururos wind farm.***



2014

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

une MILLICOM

2014

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

Grupo·epm

2015

EPM *strengthens its presence in* ***Chile*** *with the* ***acquisition of Aguas de Antofogasta.***

aguas antofagasta

2016

Regional de Occidente and Aguas de Urabá are merged *and the corporate name is changed to* ***Aguas Regionales EPM.***

aguas regionales

100% ep·rio

2017

EPM acquires a 100% stake in EP Rio.

Grupo EPM *enters the* ***municipality of Rionegro*** *providing* ***water and sewage services.***

2018

EPM addresses the social, environmental and technical aspects of the Ituango Hydroelectric Project contingency *and manages to reduce the risk to downstream communities progressing in the construction of the dam and the completion of the spillway works.*

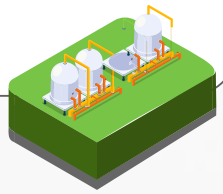
2019

EPM continues carrying out works to reduce the risk for the communities downstream of the Ituango Hydroelectric Project: *beginning of the recovery of the powerhouse, start-up of the spillway and completion of the dam, as well as delivery of the road over the dam to the municipality of Ituango.*

2019

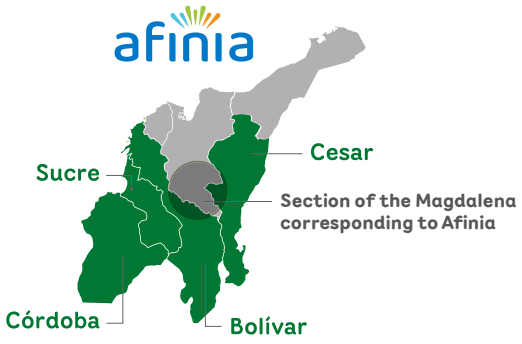
Commissioning of the Aguas Claras wastewater treatment plant *en the north of the Aburrá Valley*

The merger process of EPRío – EPM is completed, *making* ***EPM*** *the provider of* ***water and sewage*** *services* ***in the municipality of Rionegro.***



2020

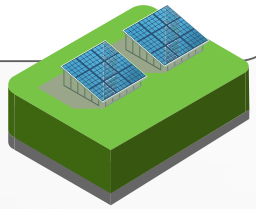
On October 1, Afinia, the new affiliate of Grupo EPM, took over the provision of electric power *services to 1.5 million customers in the departments of Bolivar, Cesar, Cordoba, Sucre and 11 municipalities in southern Magdalena.*



2021

*EPM enhances its portfolio of non-conventional renewable energies with the **award of 83 MW of solar energy from the Tepuy solar project,** located in the municipality of La Dorada - Caldas, in the third tender organized by the National Government.*

*As a result of the changes made to the strategic direction with an outlook towards the future, a new business called **Commercialization of New Solutions** emerges, which will offer a comprehensive and innovative portfolio through different mechanisms and platforms, creating positive experiences and benefits for our stakeholders.*



2022

***Units 1 and 2 of the Hidroituango power plant start operating commercially,** which add up an average daily generation of 284 gigawatt-hours, **delivering steady and continuous energy to the country,** which is key to energy security and reliability in the coming years.*

2023

***EPM commissioned the first biomethane plant in Colombia that uses biomethane** generated from the digestion of sludge when treating wastewater at the San Fernando plant, to clean and inject it into the residential distribution system as a renewable natural energy source.*

***Power generation units 3 and 4 of the Hidroituango power plant started operations** sand add another 600 MW (megawatts). With this, Hidroituango completes its first phase and reaches 1,200 MW of clean and renewable energy for Colombians.*

‹ Back to content

Sustainability Report 2023

Comprehensive risk management

Grupo·epm

Comprehensive risk management

For EPM, the **comprehensive management of risks** has played a key role in the achievement of its business objectives, goals, strategies and pathways. For this reason, we continue laying the building blocks of this process.

In order to comply with the corporate policy on comprehensive risk management, we have worked constantly on the continuous improvement of its components, such as processes, methodologies, information systems and the adoption of best practices. Thus, the methodology has now reached its ninth version, in which significant improvements have been made, thus facilitating the implementation of the process at all management levels. The implementation of software to support comprehensive risk management processes is in progress, and the guidelines and business rules on comprehensive risk management were reviewed and updated, among other aspects.

According to the corporate planning cycle, during the year 2023 the risk maps for groups, businesses, companies, processes, contracts and projects were updated, with the corresponding follow-up and submissions to the relevant authorities.

Furthermore, corporate and strategic decisions were accompanied by risk analyses with the ensuing conclusions, which provided elements for making decisions to ensure the best interests of the business group.

The main aspects of risk management and insurance that have been addressed are indicated below:

Operational Safety

The **Operational Safety program**, was completed in 2023, achieving its objectives by playing a part in the activities of each of the businesses, which led to the enhancement of existing operating practices and the implementation of new practices to ensure the operational continuity of the Organization.

The commitment is to keep all these practices active, among them:

- Updating of risk analysis to prioritized facilities and processes.
- Implementation of risk control programs, follow-up and monitoring of controls.
- Formulation, implementation and improvement of emergency and contingency plans.
- Carrying out simulations and drills.
- Continuous improvement of operational processes.
- Continuous training, coaching and retraining programs.

Business continuity program

Organizational resilience and business continuity are key concepts in business management that focus on an organization's ability to withstand, adapt and recover in the face of challenging situations or unexpected disruptions.

EPM, in support of its commitment to organizational resilience, has worked on the business continuity program according to the gaps identified, following leading standards and practices as benchmarks.

The Company participated in the actions defined in the roadmap for each of the businesses. The team worked on the structuring of the operation model and the characterization of the business continuity process in the organizational resilience macro-process.

Moreover, and in line with the defined agreements, actions were undertaken to increase the maturity level in this area and activities were carried out such as business impact analysis workshops, identification of disruption scenarios and response strategies, as well as support in updating contingency plans, which enabled the achievement of the main objective of the program by building the capacity to adapt quickly to internal and external changes, and allowed managing potential risks that could affect the stability and operation of the various businesses.

Riesgos financieros

Comprehensive risk management seeks to design, apply and improve methodologies for the quantification, review and monitoring of financial risks associated with the management of liquidity surpluses with a view to meeting the organization's risk quantification and insurance requirements.

The main milestone in 2023 was to continue applying market, credit, operational and liquidity risk controls for liquidity surplus investments, in order to contribute to investment decision making and risk management. With respect to foreign exchange risk, debt management and VAR (Value at Risk) strategies were executed to contribute to the related decision making process.

Also, the credit risk model and financial impact calculation continued to be reviewed and fine-tuned to provide information for the Organization's decision making process.

Risk management at Hidroituango

Comprehensive Risk Management (CRM) at Hidroituango is intended to identify possible events that may affect the achievement of the project's objectives, support and document decision making, minimize and prevent losses, build trust with stakeholders, and coordinate different contractors and units in the process.

This chapter presents the main achievements attained up to December 2023 in relation to the risk management process, as well as the general behavior of the risk index, the milestones that favored the improvement of risk conditions and the major future challenges.

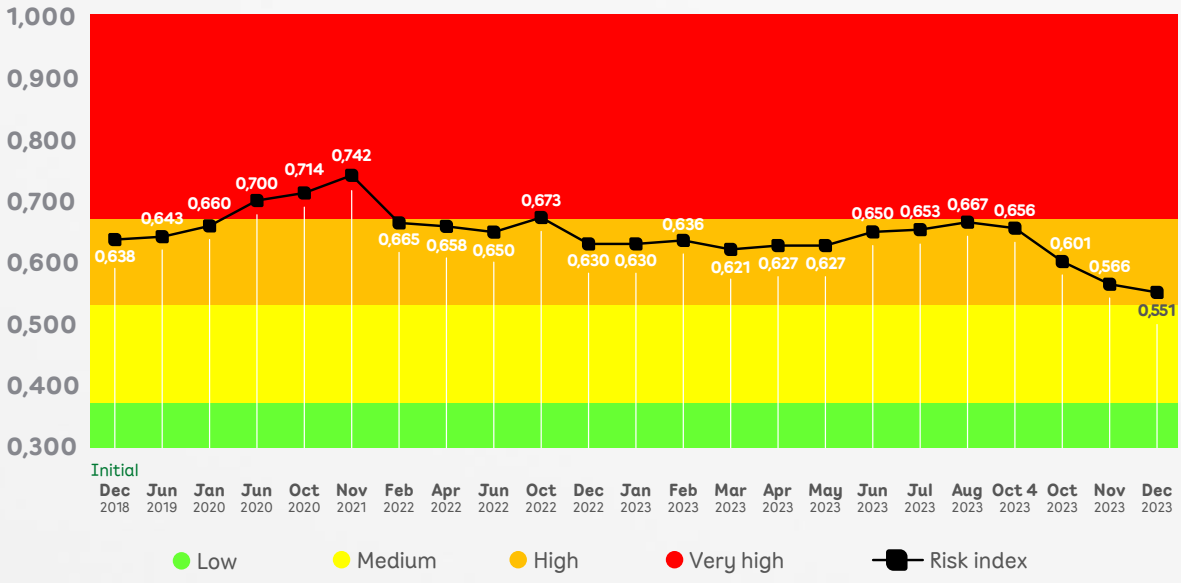
Main achievements of the risk management process at Hidroituango:

- Assignment of full-time and on-site staff from the Risk Engineering and Physical Safety departments.
- Support to senior management in the risk assessment of alternatives and decision making.

- Coordination of the risk management process with different stakeholders (contractors and internal units of the Organization).
- Risk-based thinking and culture.
- Risk analysis of the energy production process at the Power Plant.
- Specialized risk analysis such as: work fronts, assembly, commissioning, cross activities between construction and operation, socio-environmental management, inspection reports, probable maximum loss studies, among others.
- Leadership and support for the development of response instruments (contingency plans, disaster risk management plan, monitoring, preparedness and response instruments for the main work fronts).

Risk index at Hidroituango

As of December 2023 the risk index was 0.551, the lowest since the beginning of the contingency and since the current risk map was implemented.



Milestones that have favored the risks of the project

Geotechnical and structural activities in the underground complex (north area).

- Final structural closure of the GAD (Auxiliary Diversion Gallery).
- Stabilization of unstable slopes in exterior works.
- Performance of underwater activities with inspection and replacement of strainer grates, removal of debris in catchment areas and restoration of upper conduits.
- Assembly of electromechanical equipment and commissioning tests.
- Removal of jetty and adaptation of discharges for the start-up of operation.
- Start-up of commercial operation of the first stage of the project, i.e., generation units 1, 2, 3 and 4.
- Proper performance of the landfill system.
- Availability of redundant systems for the operation of the Power Plant.

Major challenges

- Recovery of the southern area and start-up of stage two units.
- Structural and final closure of the TDD (Right Deviation Tunnel).
- Stabilization of the slope at Km 0+900 of the substitute road on the left.
- Good relations with communities in the area of interest of the Power Plant.

Disaster risk management plan risk

In order to comply with Decree 2,157 of 2017, which regulates Article 42 of Law 1,523 of 2012, "whereby general guidelines are issued for drafting the disaster risk management plan of public entities," EPM has worked on the formulation and updating of disaster risk management plans for facilities belonging to the generation, water, transmission and distribution, gas businesses and projects.

To date, a total of 307 disaster risk management plans have been completed for business facilities and projects. The Hidroituango plan was updated in response to the requirements of the ANLA (National Environmental Licensing Authority) and the UNGRD (National Disaster Risk Management Unit), due to the start-up of units 1, 2, 3 and 4, which was filed and sent to both entities.

In addition, approximately 115 sharing activities have been carried out with the municipalities in the area of influence of the facilities and projects, thus integrating the processes of risk awareness, risk reduction and disaster management in order to enhance the safety and quality of life of people and bolster sustainable development.

For the year 2024, the formulation of the plans will continue for the facilities initially defined and for others included due to their relevance, as is the case of the EPM Building and the General Warehouse. Also, the disaster risk management plan for the Providencia Island dam will be formulated with the support provided by the Water and Sanitation Vice-Presidency for the reestablishment and improvement of the service on the island.

Comprehensive risk management project

The project for the design and implementation of the new comprehensive risk management model ended 2023 with a 85% progress on the schedule, with 95 milestones having been met, representing 100% of the scheduled milestones. The main activities and achievements in the different areas of the project are highlighted below:

GRC (Governance Risk Compliance) solution area: Five deliverables of the GRC solution were completed, which were worked on jointly with the supplier IBM as part of the live go-live plan for the OpenPages application

in December 2023. Mass loads of historical risk data by management level and four insurance front-end databases were made in this application.

The OpenPages solution achieved the milestone of moving the first release of the ORM (risk management and risk transfer and retention mechanisms) module into production in December 2023.

Information model area: The deliverables of the information system compliance level, gap closure plan, matrix of data entities and responsible parties, source-destination matrix and definition of conditions, sources and transformations for data migration were completed for this area. These were used to consolidate a structured data model for CRM (use cases, concept model, logical model).

Organization area: The of discovery and analysis of organizational elements milestone was reached, the Comprehensive Risk Management Committee was formed and the proposals for plant sizing, position adjustment and work scheme of the Risk VP were submitted.

Compliance management model area: The deliverable of diagnosis and referencing, regulatory study, information model, proposed scheme, sizing, diagnosis and capability gap closing plan for people was completed.

Documentary management area: The TRDs (Documentary Retention Tables) were redesigned and implemented in the corporate document management system.

Change, communication and learning area: The change plan, knowledge map and curriculum, "Ricky Riesgos y amigos" campaign, podcast and articles of the mass OpenPages subscription EPM plan were carried out.

Lote cambio, comunicación y aprendizaje: se realizaron el plan de cambio, mapa de conocimiento y malla curricular, campaña "Ricky Riesgos y amigos", podcast y artículos plan EPM masivo suscripciones de OpenPages.

People capabilities area: All deliverables of the area were completed in 100%, where the main milestones were the capabilities gap analysis and gap closure plan.

Insurance program

The Company is permanently exposed to risks and defines risk transfer mechanisms such as insurance or other financial alternatives by implementing methodologies for their identification, analysis and evaluation.

Grupo EPM has a robust insurance scheme in place, which transfers the risks identified to the domestic or international insurance and reinsurance markets, according to the magnitude of the risks transferred and the underwriting conditions of insurers in Colombia.

The transfer strategy involves the participation of the affiliate Maxseguros, which acts as reinsurer for some of the business group's policies and as manager of the insurance to be underwritten in international reinsurance markets, thus optimizing the technical and economic conditions of coverage and access to most international markets.

EPM Insurance Program

Multilatino Program

EPM - Domestic and international affiliates

- *All-risk property damage*
- *Tort liability*
- *Directors and officers*

+

Multilatino Program

EPM - Domestic afiliates

- *Infidelity and financial risks*
- *Management*
- *Drone tort liability*
- *Cyber risk*
- *Freight transportation*
- *Transportation of valuables*
- *SOAT (mandatory vehicle insurance)*
- *TAll-risk construction and assembly*

+

epm®

- *Infidelity and financial risks*
- *Management*
- *Drone tort liability*
- *Cyber risk*
- *Freight transportation*
- *Transportation of valuables*
- *SOAT (mandatory vehicle insurance)*
- *All-risk construction and assembly*

The insurance program is reviewed periodically according to the needs and changes that arise in the Company and the condition of the insurance market.

Relevant topics

An upward trend in insurance program rates has been identified for years, mainly because the international reinsurance market continues to tighten. This upward behavior is the result of global claims situations, the lack of supply due to the exit of some markets and greater risk selection by reinsurance underwriters, in addition to factors such as the account's own claims behavior.

In previous years, all matters related to the Ituango hydroelectric project were excluded from the Directors and Officers (D&O) policy. Taking into account the policy's claims performance, coverage was obtained for the operation of the Hidroituango power plant, and an additional coverage of USD 1 million for the planning, design, construction, repair and supervision phases of the project was secured. The policy was also renewed with an additional insured limit of USD 20 million in addition to that of the previous year.

Claims were filed for events occurring in 2023 in the different property and casualty lines. The civil liability policy continued with the indemnification of third parties affected by the breakage of an aqueduct pipe in the El Chagualo neighborhood in the city of Medellín, with a reserve of more than COP 9,000 million, of which close to COP 700 million have been indemnified. As a result of this, the Company received indemnities amounting to COP 353 million.

In the different property damage lines, claims were filed for events occurring in 2023, with a reserve of more than USD 2,200,000 for EPM and of USD 1,390,751 for the affiliates of Grupo EPM (including major and minor policies) and indemnities were received for events occurring in the damage policies, for an amount close to USD 1,080,000, mostly from the domestic affiliates, of which USD 586,000 correspond to EPM.

The captive reinsurance affiliate Maxseguros maintained its holdings in the lines of property damage and loss of profits, directors and officers, infidelity and financial risks and in the operation and construction coverages for Hidroituango. Also, Maxseguros supports 100% of the coverage for Hidroituango's tort liability and cyber risk for the affiliates of Grupo EPM.

Maxseguros, based on its A- (AM Best) credit rating, managed the reinsurance placement of the aforementioned policies and all coverages. The participation of Maxseguros in the risk transfer strategy, in coordination with EPM, is instrumental for the placement and renewal of Grupo EPM 's insurance program under the best possible terms and conditions in the reinsurance markets.

Physical security

The usual activities were carried out in EPM to contribute to the safety and protection of the people engaged to the Company, infrastructure, projects, assets and reputation of the Organization. Three achievements during 2023are noteworthy: electronic security, Hidroituango power plant and the Tepuy project.

Electronic security

In 2023, based on the architecture defined for the applications that support the physical security process, suited to the needs of business processes, we began updating 190 cameras at 54 sites, and the migration of the intrusion system (alarms) at 54 sites was continued. The implementation of PA systems in substations was carried out in order to strengthen the physical security strategy on-site to improve the identification and response to events that endanger the integrity of the people, assets or infrastructure of EPM.

In order to contribute to the Productivity Pathways program and comply with Agreement 1502 of the CNO (National Operation Council), which defines the cybersecurity and cyberdefense guidelines for the protection of critical cyber assets, the purpose of which is the development of a strategy to counteract the increase in computer threats, which is mandatory, security with technological means (closed circuit television and access control) was implemented in 10 substations classified as critical cyber assets for the operation.

Safety at the Hidroituango power plant

In 2023, we contributed to the safety and protection of people, infrastructure, assets and reputation of EPM in the Hidroituango power plant, by enhancing the stabilization of security conditions in the territory for the achievement of the Project milestones, as well as for the operation of the power plant. The following is a list of the most relevant events in 2023:

Demolition of concrete plugs in catchments 3 and 4: In coordination with the public forces for a robust security operation carried out on June 27 and 28. The transfer of bulkheads 1 and 2 of the Dutch firm DCN Diving for the underwater work of plugging catchments 3 and 4 was achieved with the participation of the Air Force, the Army and the Police, in order to provide support from the José María Córdova international airport to the pier of DCN Diving at the main works of Hidroituango.

Synchronization of unit 3 at Hidroituango, October 24: Support to the social officers of the Environmental and Social Projects and Engineering Management to overcome the blockade carried out from October 3 to 5, 2023 by the community of Briceño. Special arrangements were made with public forces to contribute to the safety of people, facilities and equipment at Hidroituango.

Synchronization of unit 4 in Hidroituango, October 27, 2023: Special security operation with the private security and surveillance company in generation unit 4, setting entry controls for authorized personnel of employees and contractors in order to commission it and finally achieve its synchronization.

Commissioning of turbines 3 and 4 for commercial power generation, October 31: Special security operation at the facilities with the public forces and the private security and surveillance company, to welcome the visit of the Colombian Minister of Mines and Energy and XM officials accompanied by the Chairman of the Board of Directors of EPM. In addition to the above, support was provided to contractors in the follow-up of their complaints regarding the risk of extortion threats allegedly originating from illegal armed groups, which jeopardized the continuity of the schedules for reaching this milestone.

Order to start the second phase of civil works to the CYS consortium: the security system of the Villa Luz camp was received and surveillance services were provided for all the facilities of the former CCCI consortium and custody with public forces; the Capitanes military base was delivered to strengthen the system for the power plant with generation units 1 to 4 and to expand the security reach in units 5 to 8 of phase 2 with the new CYS consortium.

Tepuy photovoltaic solar farm project

EPM carried out support and monitoring activities in the territory in order to coordinate and boost the different activities aimed at preserving and caring for the integrity of the employees, contractors and infrastructure of EPM in the construction of the Tepuy photovoltaic solar farm in La Dorada, Caldas. Moreover, five safety documents were prepared that define the necessary management efforts required for the project, such as safety assessments, safety plan, risk level analysis, safety protocols and safety study for the Las Ferias warehouse, which included the presentation of results with the suggested recommendations.

In addition to the aforementioned, security activities were planned and carried out to care for and protect employees and contractors, as well as EPM's infrastructure during the execution of the Project works.

Activity	Frequency	Quantity
Safety verification at construction sites	Daily	222
Warehouse safety verification	Weekly	80
Introduction and safety training for employees and contractors	Weekly (upon request)	27
Security relations and coordination with Public Forces (Army and Police).	Weekly	45
Security relationship with the neighboring community	Monthly	25
Security coordination meeting with security companies, contractors, auditors and EPM officials.	Weekly	45
Physical security support got to PM officials, comptrollers and contractors.	Eventual	35
	Total	**479**

‹ Back to content

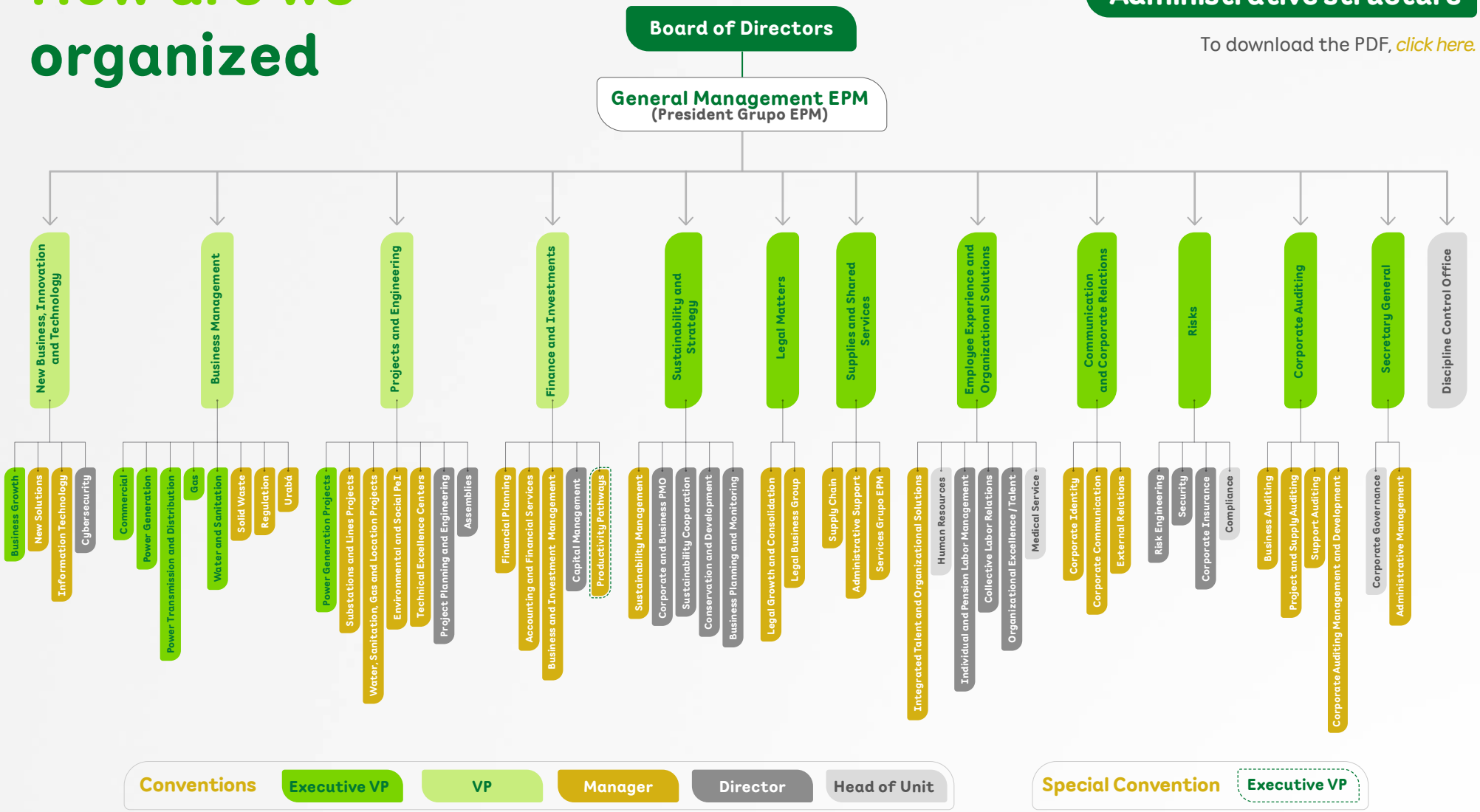
Sustainability Report 2023

How are we organized

How are we organized

Administrative structure

To download the PDF, *click here.*



Grupo·epm

‹ Back to content

Sustainability Report 2023

Our goods and services supply cycle

Grupo·epm

Procurement and contracting

The purpose of the **procurement of goods and services** is to meet the operation and administration needs of the Organization and to support social and environmental policies to contribute to the sustainable development of the territories where Grupo EPM has a presence.

For Hidroituango, construction continued on the final civil works *for the commissioning of generation units 5 to 8.*

Contracting at Grupo EPM

2023

Number of contracts	*67,593*
Value of contracts	*COP 14,333,256 million*

Contracting in 2023 was mainly for supply, services and public works agreements, which are the most representative in terms of quantity and value.

Contracting at Grupo EPM in 2023

Contracting	Quantity	Value (COP million)
Domestic affiliates	64,591	13,196,914
International affiliates	3,002	1,136,342
Total	67,593	14,333,256

Efficient practices were incorporated to add greater value to the different areas of the Company with specialized procurement methodologies, category management, eligibility lists, strategic allies, supply agreements, operational procurement (with greater participation of local suppliers) and joint procurement (companies of Grupo EPM). In this way, the capacities of different local, regional and national actors were brought together, with the end purpose of obtaining goods and services within the required deadlines, at a fair price, in efficient quantities and in line with the requested technical specifications. Thus, the Organization integrated economic, social, ethical and environmental criteria for the acceptance of contracts.

Contracting is a fundamental lever that seeks to promote sustainable development and competitiveness in the territories where Grupo EPM has a presence, improving the economic dynamics and the building of local capabilities.

Classification of Grupo EPM's contracting in Colombia

- **Type of contract:** public works, provision of services, purchase and sale, supply, among others.
- **Form of contracting:** public request, private request and single request, in addition to the procedures for renewals and minutes.
- **Social contracting:** action boards and community associations.
- **Local, national and foreign contracting:** depending on the location of the contractor with whom the agreement is entered into.

Type of contracting EPM and domestic affiliates 2023

Type of contract	Quantity	Value (COP million)
Purchase and sale	17,819	298,048
Purchase and sale | consultancy | public works | provision of services	1	207,723
Purchase and sale | public works | provision of services	3	7,466
Purchase and sale | provision of services	35	150,007
Purchase and sale | provision of services | supply	1	179
Purchase and sale | supply	3	91,488
Consulting	91	142,430
Consulting | provision of services	11	1,792
Inter-administrative agreement	49	71,548
Real Estate	189	25,068
Public works	143	2,389,178
Public works | provision of services	35	139,730
Public works | provision of services | supply	7	107,859
Public works | supply	6	84,651
Others	6	2,082
Provision of services	45,508	3,704,884
Provision of services | supply	37	89,089
Supply	647	5,683,693
Total	**64,591**	**13,196,914**

Contracting by form EPM and National Affiliates

Type of contract	Quantity	Value (COP million)
Public request for bids	7,784	7,908,883
Single request for bids	1,870	2,896,941
Renewal	857	1,474,310
Private request for bids	53,958	572,414
Minutes	122	344,367
Total	**64,591**	**13,196,914**

Source: *Supply and Services Shared Vice-Presidency*

In 2023, the types of contracts were: public request for bids (60%), single request for bids (22%), private request for bids (4%), renewal procedures (11%) and minutes (3%).

Social contracting

This is the strategy with which Grupo EPM contracts works and services with community action boards and associations of community action boards, with the purpose of contributing to the strengthening of the communities and the sustainable development of the territories in which it operates.

It relies on regulatory, procedural and management resources that, without detriment to transparency, economic convenience and technical and legal thoroughness, favor the inclusion of suppliers and contractors from the bottom of the pyramid who otherwise could not be taken into account.

Social contracting has as purpose:

- Concentric action for the generation of jobs, i.e., in the area of influence of the project or service required, so as to effectively contribute to leverage the development of the communities in the areas of influence of the domestic companies of Grupo EPM.
- Reinvestment of surpluses in the community impacted by the project or service required to improve its quality of life and development.

EPM has strengthened community organizations through social contracting *with community association boards in the territories where works are carried out and services are provided, as part of environmental and social management activities*

Social Contracting EPM and domestic affiliates

Company	Quantity	Value (COP million)
EPM	108	96,792
Emvarias	44	5,008
CENS	1	66
Total	**153**	**101,866**

The **main agreements** performed were:

- Maintenance service of the civil infrastructure associated with power generation processes.
- Services in real estate activities for the protection and conservation of properties.
- Construction, expansion and referencing of aqueduct systems.
- Maintenance of the infrastructure of educational institutions.
- Construction of civil works in villages near Hidroituango.
- Forestry activities in areas of influence of reservoirs.

Local, regional, national and foreign contracting

It refers to the place of origin of the suppliers contracted by the company. It indicates whether the supplier is local, regional, national or foreign.

For Grupo EPM, a local supplier is the one located in the municipalities, townships and villages that cover the metropolitan area of the company being evaluated.

Regional means a supplier domiciled outside the metropolitan area.

National smeans a supplier domiciled in different departments of Colombia.

Foreign is a supplier located outside Colombia.

In 2023, the companies of Grupo EPM in Colombia entered into agreements for COP 13,196,914 million, *of which 30% were awarded to local suppliers; 2% to regional suppliers; 64% to national suppliers; and 4% to foreign suppliers.*

Local, regional, national and foreign contracting 2023

Type of contract	Quantity	Value (COP million)
Local	52,153	3,955,542
National	9,392	8,494,548
Regional	2,957	260,191
Foreign	89	486,633
Total	**64,591**	**13,196,914**

External jobs generated

Corresponds to information on the **external jobs generated in Colombia** in contracts in force during 2023.

External jobs generated 2023

Company	Quantity
EPM	24,333
Emvarias	3,376
CENS	2,302
Afinia	2,289
ESSA	2,187
CHEC	1,729
Aguas Nacionales	541
Aguas Regionales	377
EDEQ	365
Aguas de Malambo	87
Aguas del Oriente	15
Total	**37,600**

The **jobs generated** correspond to the number of people external to Grupo EPM engaged under contracts and subcontracts for works, provision of services and consulting, among others, which account for a high component of labor.

For the business group, it is important to determine this type of measurements because it provides it with a view of the quality, stability and equity of the jobs generated, pursuant to its purpose of sustainability and relationship with the stakeholders Suppliers and Contractors.

Contents of GRI standards and corporate indicators

102-9	Supply chain
204-1	Proportion of spending on local suppliers
EPM-06	Number and value of social contracts
EPM-07	Number, value and type of contracts in Grupo EPM
EPM-08	External jobs generated from the contracting of Group EPM

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas de Malambo
- Aguas Nacionales EPM
- Aguas Regionales EPM
- Centrales Eléctricas del Norte de Santander - CENS
- Central Hidroeléctrica de Caldas - CHEC
- Empresa de Energía del Quindío - EDEQ
- Empresa de Aguas del Oriente Antioqueño
- Electrificadora de Santander - ESSA
- Afinia
- Aguas de Antofagasta - Adasa
- Distribuidora de Electricidad del Sur - Delsur
- Empresa Eléctrica de Guatemala - Eegsa
- Elektra Noreste - ENSA
- Tecnología Intercontinental -Ticsa
- Aguas de Malambo

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Chile
- Mexico
- Guatemala
- El Salvador
- Panama

Business

- Water
- Sanitation
- Electric power
- Gas

‹ Back to content

Sustainability Report 2023

Management Report EPM

Grupo·epm

Table of contents

	p.
Letter from the EPM Managing Director	69
Strategic management	73
EPM	82
SDG 6 Clean water and sanitation	83
SDG 7 Affordable and clean energy	88
SDG 12 Responsible consumption and production	113
SDG 9 Industry, innovation and infrastructure	121
SDG 8 Decent work and economic growth	131
SDG 10 Reduced inequalities	141
Composite SDGs	152
Financial performance	166
Vision for future Challenges	179

Letter
from the EPM Managing Director

Members
EPM Board of Directors

Since its creation, nearly 69 years ago, EPM was conceived as a high quality public utilities company that basically sought the welfare of the few citizens of the time. It has always honored this premise generated trust and recognition from its users, as an organization that represented the strength, entrepreneurship and solidarity of a people believing in its values and principles.

This recognition of good service created a culture of payment, which with the efficient and spotless management of resources led to the growth and sustainability of the Company, which over the years positioned it as a multiservice business group with presence in Latin America. A leading, inspiring, and genuine organization, a paisa ambassador to the country and the continent. All this added to the technical, legal, and financial rigor that consolidated EPM's DNA, which has made us proud throughout its history.

Thanks to the knowledge, commitment, and mystique of each and every one of our employees, we **occupy the first places in Colombia and Latin America as one of the most recognized public utilities companies.** However, in recent times we have been displaced from these honorable places.

Therefore, as we assume the responsibility of leading this beloved organization, **we will seek to focus on what is fundamental: to return to being that EPM whose essence is service,** the inspiring company that fills with wellbeing, with outstanding professionals and human beings, an entity with a sense of humanity and quality, which is in the spirit and heart of each of our stakeholders. Only in this way, we will once again receive the smile and satisfaction of the more than 30 million users that we serve in the business group.

To this end, **the vocation of service must be and will continue to be our essential attribute,** since only with full orientation towards excellence in service will we generate the well-being and quality of life that the communities served by EPM need and expect from us.

On this path we must focus on **overcoming the challenges that the environment and the citizens propose, such as continuing to improve the quality of water, energy, and gas services;** simplifying and streamlining procedures for our customers so that they can have a better, easier, and warmer experience with EPM; to reach with public utilities those communities that remain disconnected; to materialize a hydrogen production route that allows diversifying the energy mix; to be promoters of development in the territories where we are present; and to be close to our communities, because only hand in hand with them we will once again be the best utility company in Colombia and in the countries where we are present as a Group.

In this sense, **three postulates will be the basis and foundation for this new period of EPM: first, transparency and cleanliness in the management of public resources** in contracting and in the relationship with our users; **second, absolute respect for the person and for the being;** and **third, responsibility, productivity, and efficiency in our work** as a public company of the people and for the people.

epm®

The report presented here compiles materialized initiatives during 2023, and that it is my duty to make known as an exercise of transparency and informative openness with the citizens in general, even though I was not part of this management. My recognition to those collaborators who contributed with their work to bring solutions in public utilities for the people, innovating and giving the best of themselves, as a sample of the DNA of our beloved EPM.

John Maya Salazar
EPM Managing Director

In accordance with the provisions of paragraph f of EPM's Bylaws, contained in Agreement 12 of 1998 and in Article 45 and subsequent articles of Law 222 of 1995, it is incumbent upon the Board of Directors to approve the management report.

On the other hand, according to the provisions of Article 45 of Law 222 of 1995, such approval is given on the understanding that it does not imply discharge or exoneration from liability:

*"**ARTICLE 45. RENDERING OF ACCOUNTS.** The directors shall render audited accounts of their management at the end of each fiscal year, within the month following the date on which they leave office and when required to do so by the competent body. For such purpose, they shall submit the pertinent financial statements, together with a management report.*

The approval of the accounts shall not exonerate the administrators, legal representatives, public accountants, employees, advisors or tax auditors from liability."

The 2023 Management Report responds to EPM's commitment with the Communication on Progress to disclose the Company's practices derived from the conviction and commitment to the ten principles on human rights, labor standards, environment, and anti-corruption. This renews the Company's willingness to remain adhered to the Global Compact of the United Nations Organization (UN), as it has done annually since 2006, in accordance with the purpose of seeking to contribute to the harmony of life for a better world.

Strategic management

The **strategic management of EPM** and its business group seeks to guide and lead to a desired future position, it is supported by the Sustainability Model as a fundamental basis for the construction of its four **components: purpose, identity, action and result;** thus strengthening the vision of a business management model in which economic growth must respect social and environmental limits.

See | Illustration 1

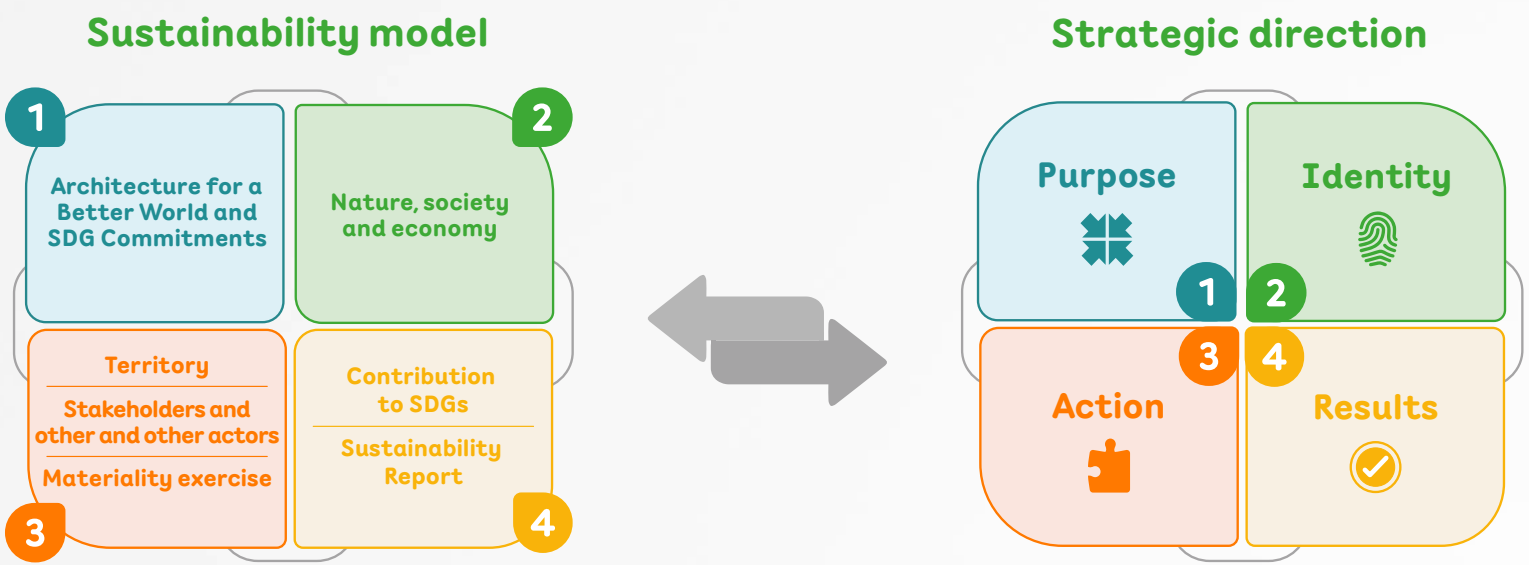


Illustration 1 *Sustainability model as a basis for strategic direction*

Strategic management is born as an inspiration of existence and our work as a business group in the delivery of agile solutions in public utilities that contribute to the wellbeing and sustainable development of the territories and the people who live there.

See | Illustration 2

1 Purpose

Question:
Why do we exist as an organization?
Answer:
We exist to contribute to the harmony of life for a better world.

2 Identity

Question:
What do we decide to BE?
Answer:
We are responsible, transparent, warm and ethical human beings.

3 Action

Question:
What and how do we decide to DO IT?
Answer:
With a strategy to evolve and grow, providing agile and innovative solutions for and with people and territories.

4 Results

Question:
Where do we decide to GET TO?
Answer:
We generate well-being and sustainable development with agile solutions in public utilities (MEGA 2030).

Illustration 2 *Summary of the EPM Group strategic direction*

1 Purpose

A common, ecosystemic and expansive purpose drives the corporate group to **Contribute to the harmony of life for a better world,** reconciling the achievement of business objectives with the contribution to the Sustainable Development Goals (SDGs), proposed in the 2015 - 2030 Global Development Agenda.

2 Identity

Defined on the basis of **values and principles of action** that guide personal and corporate actions, and constitute the Code of Ethics in interrelations with stakeholders. The **three values defined** are: responsibility, transparency, and warmth, and the **five principles of action** are: we fulfill our commitments; our primary interest is society; we provide fair treatment; we care for our stakeholders; we are committed to the environment and resources; and we seek fundamentally to serve.

3 Action

Comprised of **strategies, business, management focuses, capabilities and target market.** See | Illustration 3

Strategies

- **Corporate strategy:** it is common to the entire organization and determines **evolution and growth, providing agile and innovative solutions for and with people and territories.** It guides the companies, areas and employees in the EPM Group to evolve its current capabilities and grow in new ones that provide us with agility and innovation.
- **Competitive strategy:** each of the eight businesses -Power Generation and Commercialization, Power Transmission, Energy Distribution and Commercialization, Gas Distribution and Commercialization, Water Supply and Commercialization, Wastewater Management and Commercialization, Solid Waste Management and Commercialization, and Commercialization of New Solutions- has a **differentiated competitive strategy,** which provides greater flexibility to operate in different markets of the business group.

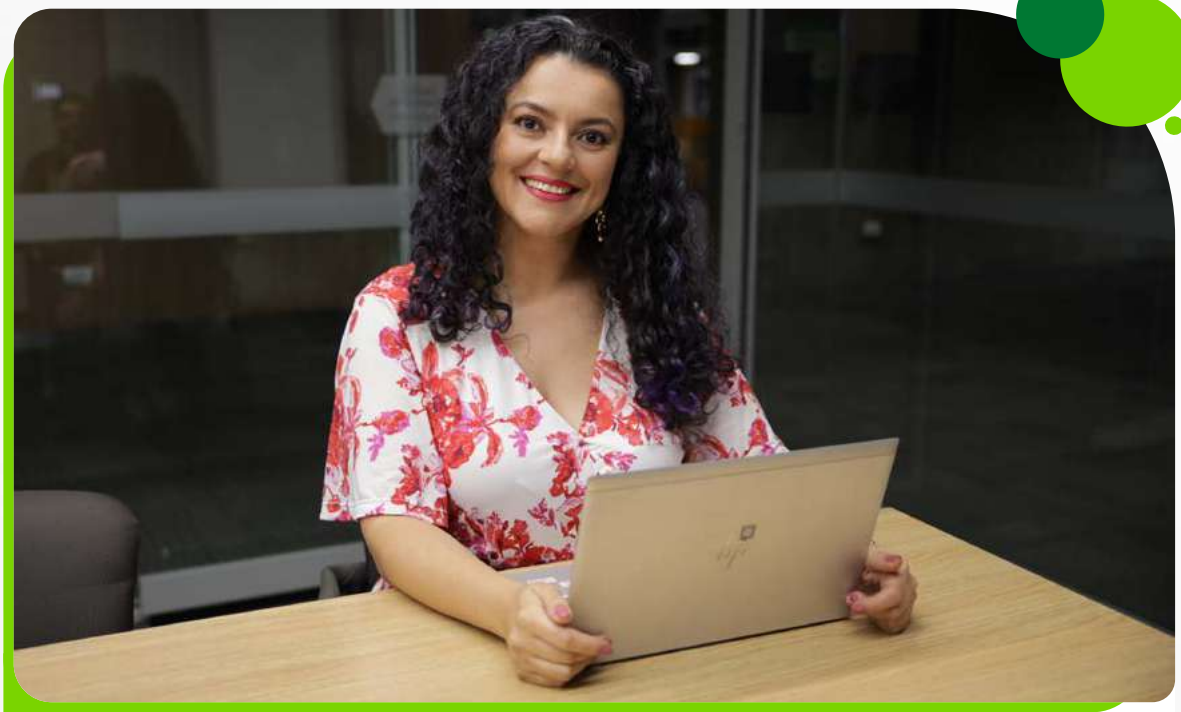
Management focuses

To guide the work of the business group, with actions and initiatives that broaden organizational knowledge, the development of capacities and new solutions, in the short and mid-term, **seven management focuses are defined:**

1. *Energy transition*
2. *Circular economy*
3. *Digital transformation*
4. *Commercialization of solutions*
5. *Project management*
6. *Supply of goods and services*
7. *EPM People and culture*

Capabilities

In order for the Group to evolve towards an organization focused on people, relationships and territory, with direct impacts on the corporate architecture, the strategies call for **five distinctive capabilities:**



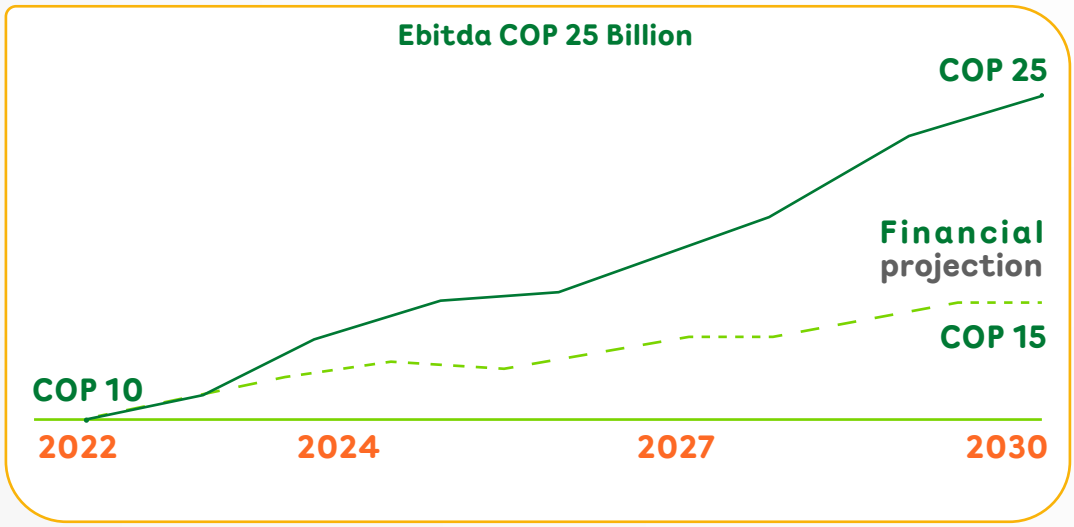
- **Adaptability**
- **Integration to the territory**
- **Transformational innovation**
- **Digital DNA**
- **Operational excellence**

Illustration 3
Action component

Corporate strategy	Evolving and growing, providing agile solutions for and with people and territories
Business	Power Generation and Commercialization; Power Transmission; Energy Distribution and Commercialization; Gas Distribution and Commercialization; Water Supply and Commercialization; Wastewater Management and Commercialization; Solid Waste Management and Commercialization; Commercialization of New Solutions
Prioritizing actions in the selected Management Focal Points	Energy Transition; Circular Economy; Digital Transformation; Commercialization of solutions; Project management; Supply of goods and services; EPM People and culture
Incorporating new capabilities into the organization	Adaptability 1; Integration to the territory 2; Transformational Innovation 3; Digital DNA 4; Operational Excellence 5
In today's market countries	México; Guatemala; El Salvador; Panamá; Colombia; Chile

4 Results:

They show the path where the Organization decided to go, starting from the definition of a MEGA (Large and Ambitious Strategic Goal) for 2030, which states: **We generate well-being and sustainable development with agile solutions in public utilities with an ebitda financial indicator and four ESG indicators (environmental, social and governance).** See | Illustration 4



ESG indicators

1. Stakeholder value generation
2. Contribution to the development of the territories
3. Reduction of greenhouse gas emissions
4. Adaptation to climate change

The strategic management guides the Group's employees and companies, allows them to be more sustainable and contribute to the sustainability of the territories, raising the level of awareness to work for a better world for all the people with whom the business group interacts.

During 2023, adjustments continued to be made to the strategic direction to provide greater clarity and simplicity to some of its elements, specifically, in terms of actions and the construction of a shared vision for all employees. In this regard, the following were implemented contributions in the **Action** component in the **Management Priorities** and the **Strategic Objectives Map**; and in **Results** with the establishment of **the MEGA for 2030** and the **Balanced Scorecard (BSC)**.

EPM

Industrial and commercial company of the State owned by the District of Medellín, provider of **public utilities** with:

2,883,145 **customers** and **users in Antioquia**

8,303 **partners**

24,333 **outside employment** generated

7 business:

- *Power Generation and Commercialization*
- *Power Transmission*
- *Energy Distribution and Commercialization*
- *Gas Distribution and Commercialization*
- *Water Supply and Commercialization*
- *Wastewater Management and commercialization*
- *Commercialization of New Solutions*

6 CLEAN WATER AND SANITATION

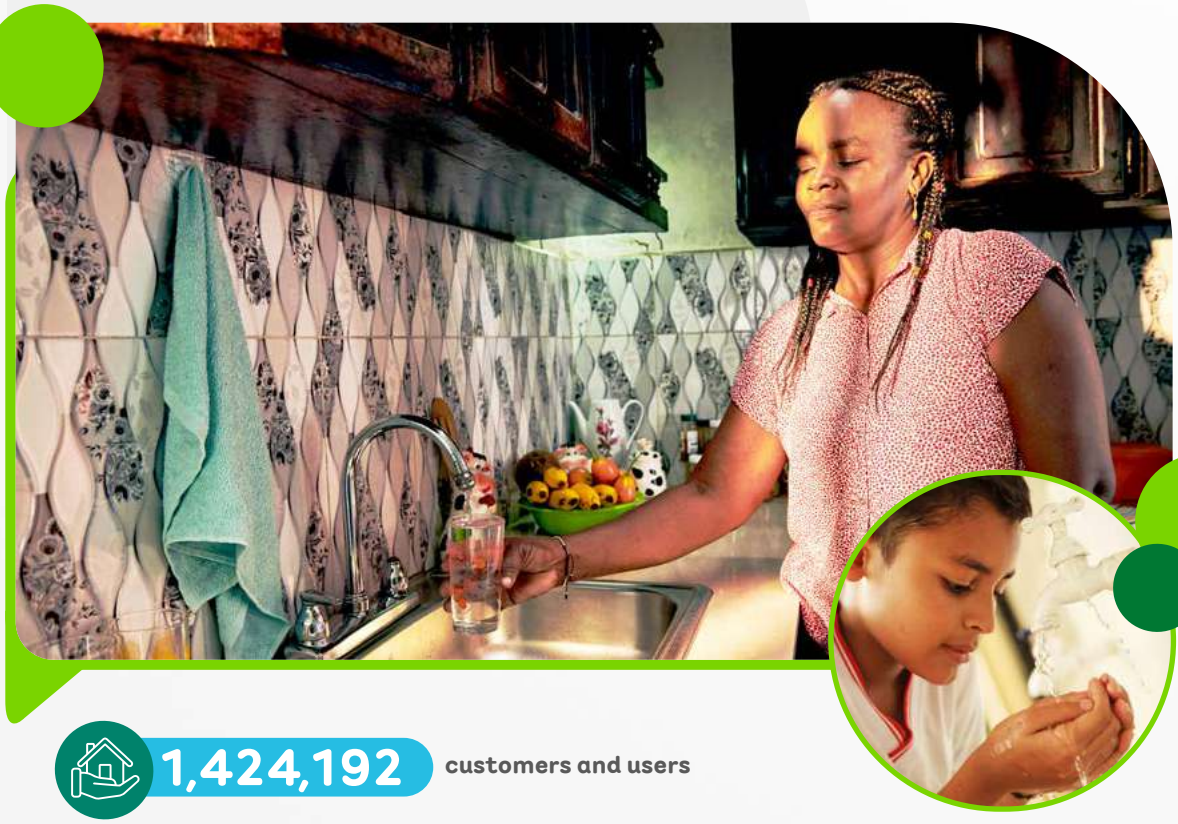
SDG 6

Clean water and sanitation

EPM guarantees the availability of water, its sustainable management and sanitation in the territories where it operates. It connects with the planet to provide universal and equitable access, and reduces water pollution through wastewater treatment and works to protect ecosystems.

Water Supply and Commercialization

2.nd position in Colombia



1,424,192 customers and users

98.13 % **universal service** in the **metropolitan area of Aburrá Valley** and in the **eastern part of the department of Antioquia** -Rionegro and El Retiro-

12.8 % EPM's **participation** in **Colombia**

13 water purification plants

132 storage tanks

4,488 km of **aqueduct networks**

Relevant milestones 2023

1,723 customers suscribed to the **EPM prepaid water** offer, for an accumulated total of more than 9,886 customers since the start of this modality in 2015. The usability of this service increased from 30% in 2020 to 57% in 2023.

6.34 m^3 was the **level of water losses,** with a closing date of December 2023, very close to the standard regulatory target of 6.0 m^3 per billed user.

Energy generation pilot in the aqueduct network at two points of the system - the El Dorado tank inlet and the El Dorado tank outlet pressure regulating station in the La Estrella circuit. The objective is to test turbo-generating equipment that uses the speed, pressure and flow of drinking water to generate energy, aiming to be self-sustainable and to deliver surpluses to the interconnected system's energy networks.

Currently, actions are underway to have automated components for remote operation from the Water and Sanitation control center.

5,029 households connected to water and/or sewage services through the **Conexiones por la Vida** program, in conjunction with the with the Mayor's Office of Medellín.

In this way, EPM reached different districts of the city: 1-Popular, 3-Manrique, 4-Aranjuez, 5-Castilla, 6-Doce de Octubre, 7-Robledo, 8-Villa Hermosa, 9-Buenos Aires, 13-San Javier and 16-Belén.

The Company prepared for the El Niño phenomenon by carrying out actions to mitigate its impact such as investments in infrastructure that contribute to greater capacity and reliability of the aqueduct system; permanent monitoring and control actions to follow up on reservoirs; and coordination of actions with environmental authorities to expose the state of the quality and quantity of water from minor sources, as the phenomenon progresses.

Wastewater Management and Commercialization

2.nd position in Colombia

1,406,377 customers and users

96.27 % **universal service** in the **Aburrá Valley metropolitan area** and in the **eastern part of the department of Antioquia** -Rionegro and El Retiro-

13.5 % **EPM's participation** in **Colombia**

5 PTAR **wastewater treatment plants**

4,999 km of **sewerage networks**

Relevant milestones 2023

278 homes located in areas of difficult management suscribed to the sewerage service, which only had access to the aqueduct, thanks to the **Closing the Gap project**.

Since 2019, more than 7,421 customers have benefited from this initiative.

Contribution to the **protection of water resources** in the Aburrá Valley basins, the La Fe and Riogrande II systems, the Negro, Nare and Porce upper Nechí rivers, exceeding the goals of the water protection indicator (IPH) with 8,491 hectares (ha) in 2023.

11 critical points of the interceptor on Regional Ave. were successfully repaired and the gated boxes in the Santa Elena -south, north and express-, Bermejala and Molinos collectors made it possible to stop the flow of water into the interceptor.

The rehabilitation of the **eastern interceptor**, located on Regional Avenue for 3.9 km was also initiated From San Juan Avenue to the Moravia neighborhood, to protect and maintain the achievements made in the sanitation of the Medellín River and its tributary streams.

Awards/ Recognition

EPM wins the Action for Water category in the Lazos a la sostenibilidad 2023 (Links to Sustainability 2023) awards for the Closing the Gap project. This award is presented by the British Embassy and the Chamber of Commerce.

It recognizes those companies that have led the endorsement of sustainable practices, in addition to visibilizing the projects developed in the country in environmental, social and corporate matters.

7 AFFORDABLE AND CLEAN ENERGY

SDG 7

Affordable and clean energy

EPM ensures access to affordable, safe, sustainable and modern energy for more homes and businesses by expanding coverage and implementation of energy efficiency actions and the delivery of solutions through non-conventional renewable energy sources, which make it possible to bring service to areas that are difficult to access.

Energy Generation and Commercialization

1.st energy production company in Colombia

4,536 MW
EPM **effective net generation capacity**

22.8 %
of **participation in energy production** in **Colombia**

21 %
of **net effective capacity participation** in **Colombia**

50
distributed solar generation systems for large consumers

400
distributed solar generation systems for homes and businesses

2,311 MWh
of **solar generated power distributed**

28
hydropower plant

18,578 GWh
for **hydroelectric generation**

1
thermal plant high-capacity

214 GWh
from **thermal generation**

1
wind farm

32.78 GWh
From wind power generation in **energy production in Colombia**

Relevant milestones 2023

During 2023, EPM achieved important milestones that contribute to operational safety, system reliability, profitable and sustainable management and availability of power generation plants:

Consecutive all-time record power generation over the past three years, thanks to the availability of the technical equipments, the commitment of EPM People and the commercial strategy proposed. In accumulated billions, as of November 2023, net income from commercial operations (INOC) of COP 4.18 billion and an ebitda of COP 3.4 billion were received, which represents 55 % of EPM's accumulated ebitda.

Units one (1) and two (2) of the Hidroituango power plant are stabilized and increase their power output to 300 MW each, allowing for greater generation and, therefore, improving the conditions for meeting the plant's Firm Energy Obligations (FBO).

Contribution to the **diversification of the energy mix** with solar energy initiatives photovoltaic, wind, geothermal and green hydrogen, thus strengthening hydropower as a renewable and cost-efficient source.

Creation of **EPM Renovables** (EPM Renewables), an investment subsidiary with a focus on Central America and Chile, to capture growth opportunities for the power generation business in other markets, leverage the strengths of other investors and be in more stable geographies, reducing country risk.

Highly engineered methodologies successfully implemented to maintain state-of-the-art **asset management** and **operational safet**y, based on dam safety risk assessment and automation of geotechnical instrumentation systems.

27.68 MWp operated through **residential, commercial, and industrial solar self-generation solutions**, which contribute to the country's energy transition by complementing the energy supply for customers.

The two offers are **PPA** (Power Purchase Agreement) and consist of a power purchase agreement in which EPM remains the owner of the assets and a solar power sales contract is entered into with the customer; and the second is **EPC** (Engineering, Procurement, and Construction) and is aimed at homes and small businesses in which the customer buys all of the assets and is the final the owner of the equipment.

There are currently 27 installations under the PPA model and 127 under the EPC, Since the start of this offering in 2019, a total of 464 installations of the two solutions were installed.

Among the most representative clients of this offer are the Colombian Air Force with five facilities, Bios, SENA, Incolmotos, Doria, Dinissan, Universidad Lasallista, Institución Universitaria Pascual Bravo, Tostadas Susanita, Mujer Latina, Creafam, Sapiencia, Comfama and EPM with its Intelligent Building and the San Fernando Wastewater Treatment Plant, among others.

Reduced generation infrastructure failure rates and increased efficiencies during maintenance, thanks to the implementation of expert methodologies such as the optimized maintenance **plan in major plants, among other initiatives that leverage** this achievement.

1,734 farmer families, 48 associations and 61 production lines strengthened **through development alliances**, with technical assistance, transformation and commercialization in the Porce and Nare basins.

COP 164,577 million **electricity sector transfers** for 194 municipalities in Antioquia, Guajira, Quindío, Valle del Cauca, Caldas, Cauca, Risaralda, and Córdoba and the regional autonomous corporations Corantioquia, Cornare and Corpouraba, and natural parks. In this way, the Company contributes to the sustainability and care of the environment in the regions.

Meeting the **water protection** target in the power generation business as a contribution to biodiversity sustainability and the protection of water sources.

The contribution of this business represents **73 % of the corporate environmental MEGA** -103,260 hectares- and contributes to the achievement of **carbon neutrality** through the generation of RECs (Renewable Energy Certificates) attributes and CERs (Greenhouse Gas Emission Reduction Certificates) in the international market for climate energy products.

Tepuy Solar Project

It leverages a clear growth opportunity in the current market for energy generation, increasing EPM's installed generation capacity by 83 MW, which contributes to the growth of non-conventional renewable wind and/or solar photovoltaic energies, according to the competitive strategy of EPM's energy generation business.

The scope of this project was the preparation of designs and studies, supplies, construction, assembly, and commissioning. The 115/34.5kV 100MVA substation for the connection of the park to the Regional Transmission System (STR) is located in the municipality of La Dorada, in the department of Caldas.

Technical managemet

- Activation of the commissioning and performance testing services option.
- 100% of the supports -metallic structures- and solar trackers are on site. The driving of metal structures by the three subcontractors continues and the progress as of December 2023 is 98%.
- All mechanical and electrical equipment is in the project and the progress in its assembly was:
  - Transformation centers 100%.
  - Invertors 43 %.
  - Low voltage DC (direct current) pipe 100%.
  - Low voltage AC (alternate current) cable 35 %.
- Completion of the removal of panels from the two warehouses and relocation at the project site. Assembly is progressing by 30%.
- Regarding civil works, the construction of the acceleration and deceleration lane and the foundations for the transformation centers were completed. Construction of the operation and maintenance (O&M) building continues, and the internal roads are 90 % complete and 86 % enclosure.
- With respect to regulatory commitments - CNO Agreement 1612 - all the requirements established by the regulatory body - XM - have been met for the commissioning of the wind farm and the start of tests on February 17th, 2024.
- The project was able to obtain tax benefits - Law 1715 - for equipment such as inverters, the power plant controller, the Scada, and transformation centers, among others. The tax benefit for solar trackers is currently being processed and is expected to be available in early 2024.

Environmental and social management

- Archaeological monitoring of 100% of the project's excavation sites, with the rescue of an archaeological finding. This activity was carried out with our own resources, which made the construction of the project feasible due to the reduction in time, avoiding an archaeological rescue of more than 5,000 m^2 and carrying out a responsible management of the archaeological heritage.
- Preparation and implementation of the risk management plan, which includes an analysis of the coexistence of infrastructure from other projects on the site.
- Rescue and relocation of 874 individuals of flora in national closure as part of the implementation of measures associated with forest harvesting. In addition, we carried out 1,410 wildlife repellings, 1,326 rescues of individuals and 1,231 relocations.
- Timely reporting of environmental procedures, environmental compliance reports and additional requirements to the Corporación Autónoma Regional de Caldas (Corpocaldas).
- Implementation of the local labor hiring program and activation of the Employment Committee, as a space for oversight and follow-up for the 381 jobs generated by this project.
- Implementation of relationship and communication strategies with the different stakeholders to mitigate potential conflicts of impact in the execution of the project works.
- Community capacity building in an alliance with SENA, with the training of 300 people from the municipality of La Dorada, who work as solar panel installers.

Hidroituango Power Plant

The overall progress of the project as of December 31st, 2023 was 92.56 %, with a cost execution of COP 16.9 billion and COP 21 billion, or 75.20 % of the total cost.

Three (3) and four (4) generation units

Regarding the start-up of units 3 and 4, the following presented the following **achievements during 2023:**

- In generating units three (3) and four (4), assembly activities were completed, which include the embedded equipment, turbine, generator, electrical and instrumentation systems, mechanical systems and piping, and isolated phase ducts.
- Completion of the assembly of the shielding and concretes in pipelines three (3) and four (4), which include the lower elbow, vertical shaft, and upper elbow.
- Completion of the pouring of the definitive concrete plugs, located at upper elbows three (3) and four (4).

- Demolition of the temporary concrete plugs in the upper pipelines three (3) and four (4). Initially, the hot tapping perforations were made, and the construction of the infiltration water management system was carried out, then the depressurization process was carried out and, finally, the demolition was performed.
- Regarding underwater work, the installation of metal bulkheads three (3) and four (4) was completed, as well as grouting -a mixture of special cements with additives-. Underwater depressurization activities began on September 13th in unit three (3) and on September 15th in unit four (4).
- The following tests were performed for both generation units prior to their commissioning:
  - Type A dry tests of turbine and generator subsystems.
  - Cylindrical valve and manifold dry testing.
  - Completion of dry type A tests with transformer energizing and excitation system thyristor tests.
  - Type B dead water tests with partial filling of the suction pipe up to 204 meters above sea level (masl), as well as tests of the cooling system with the water circuits closed and open.
  - Type B tests by filling the suction pipe up to 223 masl, as well as seal, casing drainage and turbine bearing tests.
  - Once the work on the plugs was released, we proceeded with the dynamic tests without C type load and dynamic tests with D type load.

In October 2023, **EPM successfully completed the synchronization of units three (3) and four (4),** and in the same month, after performing the sequence tests in automatic start-up and load rejection, 1200 MW were generated with the four synchronized units.

Unit three (3) began commercial operation on October 28th at 0:00 hours; while unit four (4) began commercial operation on October 31st at 18:00 hours.

They were subsequently registered in the National Interconnected System (SIN) when the operator XM approved their commissioning because they complied with the country's regulatory requirements.

Construction of civil works for generation units five (5) to eight (8).

In October 2023, EPM awarded the contract for the construction of civil works of units five (5) to eight (8) of the Ituango hydroelectric project to Consorcio CYS- formed by Yellow River CO., LTD Sucursal Colombia and Schrader Camargo S.A.S. - for COP 1,75 billion.

Definitive plugging of the right detour tunnel (TDD).

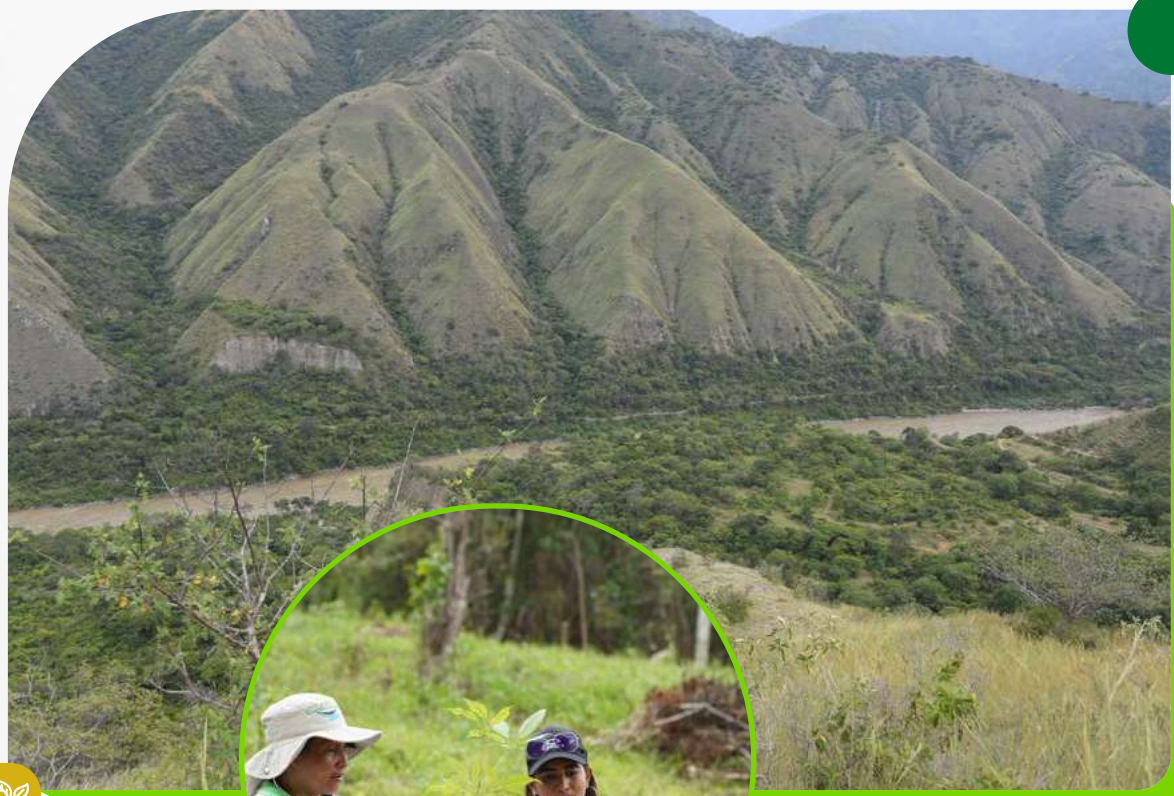
- On October 23rd, 2023, Schrader Camargo S.A.S. began activities for the definitive plugging, including perforations for injections in pre-cap 1, installation of non-return valves in pre-cap 2, adaptation of pits and drains, assembly of concrete plant and production of synthetic material for the formation of the filter in pre-cap 2.

Slope stabilization at km 0 + 900 - Left bank of the Hidroituango dam.

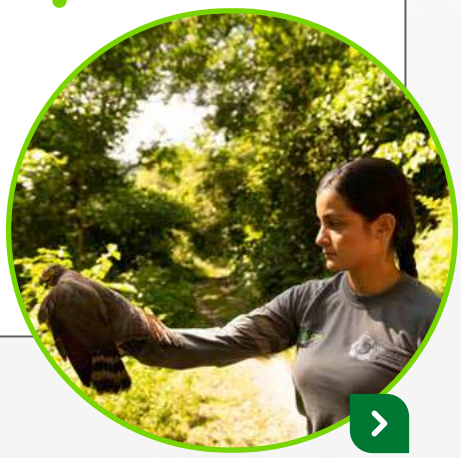
On August 23rd, 2023, the contractor selected was Estyma Estudios y Manejos S.A. and November 29th was the contract start date. Activities began in zone A, the upper part of the slope, and the adaptation of the access road, forestry and rock gardens.

In zone D, lower part, the drilling of deep drains along the left bank of the industrial road began.

Environmental and social management



- Concluded 135 obligations and requirements arising from control and monitoring exercises -The National Authority of Environmental Licenses (ANLA).
- Responded to 243 ANLA requirements derived from the 2018 contingency.



Dealings with ANLA for the execution of forestry and related **activities in the reservoir basin area, between 408 and 420 meters above sea level.**

- Documentation, with own resources, of the license modification to reduce the licensed area; mechanism proposed by the ANLA to build the community infrastructure -school, community and health center- for the restitution of the damages caused by the contingency in the township of Puerto Valdivia.
- Filing with ANLA of the request for partial lifting of the preventive measure of Resolution 617 of 2023, by which the dumping of the Tacuí-Cuní camp was suspended.
- Obtained a favorable concept from ANLA to start dismantling the power towers of the Yarumal II - Ituango transmission line, which are no longer required.
- Regarding the integral management of floating solid waste and aquatic macrophytes in the Hidroituango power plant reservoir, EPM complied with the requirements of the environmental authority to remain below the percentage approved in the Environmental Management Plan and the environmental license, the maximum authorized area is 20% of the reservoir coverage.

During 2023, mechanized extraction tasks were carried out with EPM's own personnel and equipment and with contractors from five Community Action Boards (JAC) that, through the social contracting strategy, complement the activities with manual extraction.

- Of the initiatives agreed with the Nutabe de Orobajo indigenous community, since mid-2019, 26 protocolized projects were implemented that originate 137 products, according to the agreed deadlines; of which, five (5) have been established at 100%, 15 are progressing according to the established schedule and six (6) are undergoing internal management with respect to the administrative process.
- In 2023, the infrastructure for the coffee processing plant was delivered and the project to strengthen disaster risk management was completed.

Integration with the region

- Support for the updating of the land-use planning schemes (EOT) of the municipalities of Olaya, Toledo, Buriticá.
- Contribution to the strengthening of spaces for dialogue and participation in the communities with the strategy called the Ruta de la Confianza (Trust Route).

Dealings with productive project agreements in the municipalities of Peque, Sabanalarga, Toledo, Briceño and San Andrés de Cuerquia.

- Execution of the agreement with the National Learning Academy (ANDAP) to strengthen productive associations in the area of interest.

Maintenance of six educational institutions in the area of influence of the plant and improvement of eight Rural Educational Centers (CER).

- Support to communities in terms of inclusion, capacity building and employment generation through the social contracting strategy.
- Strengthening of community action organizations in the municipalities of the area of interest.
- Completion of a diploma course in community leadership for territorial development for leaders from Briceño, Toledo, San Andrés de Cuerquia, Yarumal, Santa Fe de Antioquia, Buriticá, Olaya, Liborina, Sabanalarga and Peque.
- Launching of the training process for fishermen and community leaders with the University of Córdoba for the conservation of fishery resources and sustainable fish farming.
- Signing of cooperation agreements with the municipalities and hospitals of Valdivia, Toledo and Briceño to strengthen and expand the application of the primary health care (PHC) strategy and friendly services.
- Delivery of the north collector in the municipality of Liborina and establishment of an agreement with the Municipality of Ituango for the construction of the North WWTP in the urban area.

Relationship with stakeholders in the area

- Formulation of 60 entrepreneurship projects in Buriticá, in the village of La Angelina and other sectors of the municipality enrolled in the Ruta Emprende Buriticá process.
- Signing of agreements for the construction of five new arrivals in the municipality of Ituango, which serve as temporary storage spaces for the transportation of inputs and products to and from the local and regional markets - Agüitas Palmichal, Tinajas, El Torrente, Filadelfia and Sevilla.

Construction of **Community Risk Management Plans** through the EPM- JAC agreement for some villages of Briceño, Ituango, Valdivia and Tarazá and support for updating the community risk management plan in Toledo in agreement with the fire department.

- Development of actions to strengthen the Municipal Risk Management Plan through an inter-administrative agreement between EPM and the municipal administration for Ituango, Briceño, Valdivia, Tarazá, Cáceres, Caucasia and Nechí.

- Start of social contracting with JAC Puerto Valdivia for the rehabilitation of the school restaurant of the Marco A. Rojo Educational Institution, due to disuse and abandonment after the evacuation derived from the 2018 contingency.

- Formalization of the social contract with JAC Cachirimé for the rehabilitation of the Cachirimé court in the township of Puerto Valdivia, due to disuse and abandonment after the evacuation derived from the 2018 contingency.

- Support for the expansion of psychosocial workshops with the Antioquia Presente program for the benefit of communities in Tarazá, Cáceres, Caucasia and Nechí.

- Socialization with municipal administrations and communities of 12 municipalities in Hidroituango's area of influence, with topics of technical, environmental, and social interest such as the progress of the power plant, transfers from the electricity sector, progress of agreements and contracts, and the start-up of units three (3) and four (4), among others.

- Based on the experience of implementing advocacy agendas in the 12 municipalities in the Hidroituango power plant's area of interest, between July and October 2023, three subregional forums were held to expand on the issues and generate contributions to the creation of networks among the different municipalities.

- Within the framework of the articulation with the territorial planning of the municipalities of influence, in the first half of the year, the territorial planning schemes of the municipalities of Toledo, Peque and Buriticá were negotiated, as well as the final phase was developed to culminate in 2023 for the municipalities of Olaya, Briceño and Santa Fe de Antioquia.

Power Transmission

3.rd position in Colombia

6.94 % market share in the transmission market in Colombia

99.99 % average availability for reliability in Colombia

1,081 km in the National Transmission System (STN)

Relevant milestones 2023

EPM carried out different actions to transport the energy that the territories need for their development and contribute to the **strengthening of the country's energy infrastructure:**

- Succession process - training - generational replacement- in the business from Transmission and Distribution Energy to **guarantee and avoid loss of knowledge and experience.**
- **Replacements of the shock plan of switches** advance by 25 %, with this, there are 36 new switches at levels of 44, 110 and 230 KV.
- The **new Andes and Bolivar substations** are now in operation.
- **Modernization of** El Limón **Substation**.
- **Modernization of** 45% of the Miraflores 230 kV **substation**.

Awards / Recognition

Positive opinion to maintain the **ISO 55001 certification of the Asset Management System of the Energy Transmission and Distribution business** by the auditing firm PMM Enterprise Certification, thus extending until 2024 the period of validity of the certification, obtained in 2022. The business continues to strengthen the maturity of all facets of its asset management.

Energy Distribution and Commercialization

2.nd position in energy distribution in Colombia

2,835,290 customers and users

97,2 % universal service in Antioquia

14.8 % market share of distribution network in Colombia

103,306 km of network

1 municipality of Choco receives power service from EPM

123 municipalities of Antioquia receive power service from EPM

Relevant milestones 2023

In the **Energy Distribution and Commercialization** business, new infrastructure was installed, aimed at reliability, system quality and meeting the growth in demand to **light up the lives of customers and users:**

8.81 % was the **Network Operator's Loss Ratio (NOLR)** during 2023, showing a compliance of 100%. This indicator has integrated the regulatory changes derived from the going into effect, since January 2020, of CREG Resolution 015 of 2018 and 036 of 2019, for the Network Operator (RO) EPM.

13,597 customers suscribed to **prepaid energy** in 2023, for acumulative total of 325,441 customers since the beginning of the supply in 2007.

More than 36,715 customers suscribed to the **housing rehabilitation program** for strata 1, 2 and 3, which offers solutions for safe and legal access to electric energy service.

Improvement of the SAIDI quality indicator by reducing from 13.14 hours/user in 2022 to 12.42 hours/user in 2023. In this way, savings are achieved by reducing the duration of interruption time for users -primordially in Urabá, Occidente and Oriente-, thanks to the use of suspensions and technologies such as the big jumper, as well as the installation of the 141 available reclosers - regulators.

Modernization of **public lighting in the city of Medellín** through the project "Management of public energy efficiency (GEE), with energy and tax savings from the Mining and Energy Planning Unit (UPME). Progress is being made in the replacement of 26,674 failed LED luminaires within the intervention plan.

First **FACTS** - Flexible systems for current transmission go into operation distributed in Colombia and South America. With this, the Company achieves a relevant leadership in the sector.

Expansion of the **capacity of the Rodeo substation,** which is part of the southern expansion plan of the Aburrá Valley to meet the growth in demand for the service.

Rollout of two sections of the **110 kV subway line -Guayabal, Rodeo and Envigado Rodeo-.**

19 **individual solar installations solution of photovoltaic installations (SISFV)** installed under an agreement with the Government of Antioquia.

Incursion in **digital substation** technology with the Santa Rosa de Osos substation, which generates technical, environmental, social and property benefits for EPM.

Notification of Resolution 2281 of 2023 of the Ministry of Science, Technology and Innovation (MinCiencias) with approval of quota for tax benefits for the **multi-company and multi-year project of Optimal planning of the expansion and replacement of the EPM Group's distribution network system.**

Rollout of an additional station at **public electric vehicle charging station** at the service station (EDS) Álamos in the Aburrá Valley, for a total of 22 at present. This consolidates EPM's commitment with caring for the environment and the development of the sustainable mobility ecosystem in the District of Medellín.

26 years of operation

1,472,475 customers and users

86.6 % universalization of service in Antioquia

13 % market share of distribution in Colombia

12 EPM brand service stations (EDS)

19,056 gas vehicles

88 km steel networks

8,758 km polyethylene networks

Relevant milestones 2023

The **Gas Distribution and Commercialization** business continues to deliver quality of life to more than 1,000,000 customers and users, and continues its expansion to more homes and industries, driving its transformation process based on innovative processes.

Use of **biogas**, produced at the San Fernando WWTP, to enrich it into methane and for the Aburrá Valley's gas distribution system networks served by EPM. This technological innovation project contributes to the EPM Group's climate change mitigation, energy transition and circular economy strategies, through the reduction of greenhouse gases (GHG), the use of non-conventional sustainable energies and the continuous valuation of waste, closing process cycles and implementing the creation of new business models.

At the end of 2023, the Company injected approximately 350,000 m^3 of renewable natural gas -biomethane- per month, equivalent to the consumption of 29,000 homes.

Handling of the operational improvement project for the supply of gas to isolated regions – non-interconnected market to **switch from compressed natural gas (CNG) technology to liquefied natural gas (LNG),** which generates economic savings, logistical optimization and increased reliability of natural gas service. Currently, EPM has 29 liquefied natural gas (LNG) supply points and 54 compressed natural gas (CNG) supply points.

Notification of the cancellation of the long-term natural gas supply contract by Canacol Energy EPM. In spite of this fact, EPM as second distributor-marketer of natural gas in Colombia delivers a message of tranquility in the energy supply of its more than 1,450,000 residential users, SMEs, commerce, industry and natural gas vehicle (NGV) refueling stations. The Company will continue to provide this service with the continuity and quality that characterizes it.

Commercialization of 4,233,069 TRF (tons of refrigeration) per hour in nine (9) clients served by the **Thermal District,** among which are the EPM Building, the Government of Antioquia, the Mayor's Office of Medellín and IDC TIGO.

Promoting **sustainable mobility** in the territory, hand in hand with the agents of the natural gas chain, by designing a **CNG promotion program for Medellín cab drivers to access its installation at no cost.** This will promote the use of an environmentally friendly fuel and facilitates the energy transition in public transportation. During 2023, the supply was resumed and NGV was installed in more than 70 cabs, which, in addition to saving on fuel costs, reduced their polluting emissions.

Launching of the pilot of gas meters that are more than 20 years old installed to reduce the likelihood ofcustomer operation failures and erroneous readings, as well as a reduction in technical losses in the gas distribution system.

Renegotiation of the **contract with Metro de Medellín** until May 2025, this is one of the NGV most important clients.

Certification of the networks of 54 towers, which represent about 2,000 natural gas installations, thanks to the design of a new offer of **Certification of Main Lines in Nuevo Occidente.** This initiative allows the community, which has difficult social conditions, to comply with the current regulation with favorable access conditions to continue to safely enjoy the benefits offered by this service.

Renewal of the NGV contract with Emvarias until December 31st, 2024. In addition, 50 new tractor-trailers entered the replacement program, replacing 25 gas vehicles and 25 diesel vehicles that have reached the end of their useful life.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

SDG 12
Responsible consumption and production

EPM promotes sustainable consumption and production modalities to increase the efficiency in the use of resources, such as contribution to the care of the planet.

Solid Waste Management

The current competitive strategic direction of the **EPM Group's Solid Waste** business has a clear mandate aimed at growth. Since the incorporation of Emvarias to the corporate group, towards the end of 2013, has had the expectation and interest in advancing not only in the efficient management of municipal solid waste, but also in expanding the portfolio of services in different waste streams.

As well as, in a geographic expansion initially with a national scope and in taking the business model to a level where minimization in generation, reuse, recycling and recovery of materials and energy is encouraged. These solutions must be adapted to local realities and be environmentally, economically, and socially sustainable and inclusive.

Relevant milestones 2023

Subscription of an agreement with the International Finance Corporation (IFC) for a pre-feasibility study to **review different technological options for the treatment and recovery of ordinary solid waste in Medellín, in order to** reduce the amount deposited in the La Pradera sanitary landfill and maximize the recovery of materials and energy.

This initiative presents advances such as the identification of possible partnerships for the implementation of the project, the beginning of the feasibility study with the IDOM company and the analysis of the environmental criticality of possible sites for the location of the project.

Participation in the design of the **pilot of the new scheme of use of industrial surplus and electrical and electronic equipment waste (WEEE)** of EPM, with standardization of the processes and best practices for the reuse of materials. Currently, the company is in the process of contracting a WEEE and surplus management company.

Application to district call with environmental tax incentives (IAT) for obtaining resources for **inorganic and organic waste projects.**

Application to calls for proposals to **access international cooperation resources with the Korean government** through KEITI cooperation agencies, and KOICA, who were presented with a project concept paper (PCP) for the **use of organic waste in the District of Medellín,** whose object is a "Pilot Project for the conversion of waste to energy to promote the circular economy in Colombia using organic waste".

Management and memorandum of understanding with Reciclados Industriales de Colombia (RIC), a company that is part of EPM's Ventures portfolio, to **position the use of construction and demolition waste (CDW)** through the operation of the RIC plant, in which EPM has a shareholding interest. Of the 60,000 tons received during a year and a half of operation, 40,000 tons have been used, including base material, sub-base material, crushed material and sand.

Circular economy

Since 2022, the circular economy strategy has been structured through the establishment of lines of action, prioritization of topics and areas of value, in which **opportunities and business models** were identified, **oriented towards sustainable production and consumption** and the closing of cycles -reincorporation to productive cycles-.

In this sense, **EPM is making progress in the implementation of some circular economy initiatives,** which address **the flows of energy, water, materials and biomass,** as key issues that guide the long-term vision of the business group.

Relevant milestones 2023

Implementation of **circular economy initiatives,** focused on strengthening good practices of innovation in the provision of services through the closing of production cycles and the promotion of this culture. In this way, the development of new business models was facilitated within a long-term vision that recognizes circularity as a fundamental element of sustainability.

Start of the **pilot of renewable energy generation in aqueduct networks** to take advantage of water fall and EPM's aqueduct infrastructure, generating up to 100 kilowatts (kW) of energy from April 2023.

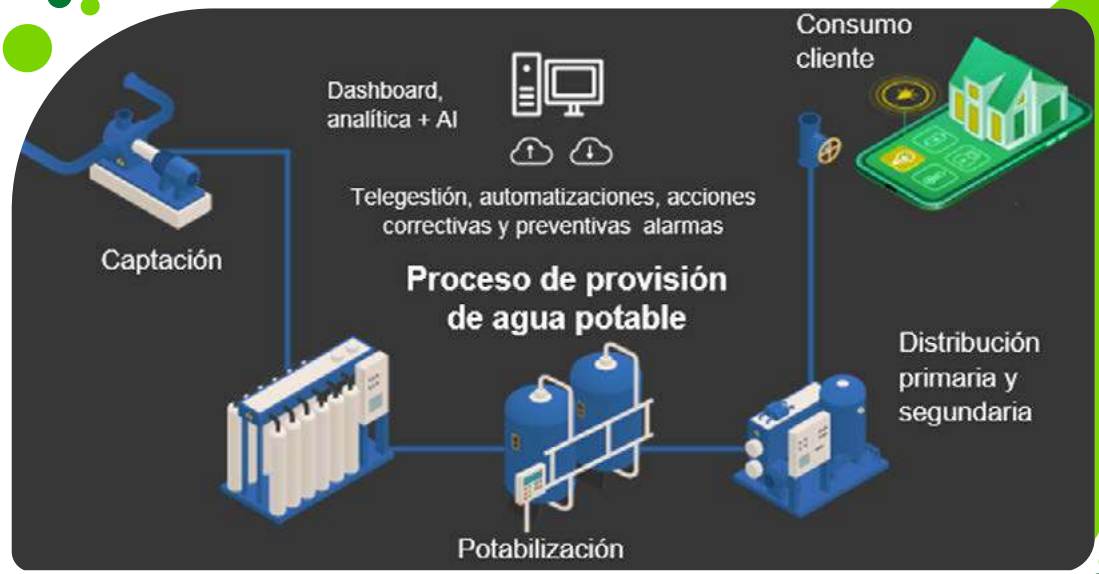
In this way, the Company aims at energy efficiency and circular economy, fulfilling the dual function of providing drinking water to the community and generating renewable electricity. This pilot project could generate up to 40,000 kWh per month, which is equivalent to supplying the consumption of 234 households of stratum four (4).

The VII phase of the pilot project to investigate the capacity of microalgae to leverage off their performance in different biological water treatments such as desalination and wastewater treatment has been completed. There are two prototypes installed in Urabá (Colombia) and Antofagasta (Chile), and the business case is modeled for them.

Prefeasibility and lean business case **for smart aqueduct solutions (SIA),** and execution of a market study with IPSOS-Napoleon Franco to determine the potential of this new solution in the target market by EPM for aqueducts nationwide.

The SIAs, which combine Internet of Things (IoT) technology with telecommunications and digitization, seek to apply data analytics to bring information to life and generate value for customers with better operational and regulatory indicators.

With this business model, it is estimated to have five (5) new businesses developed, generating revenues of COP 10,000 million by 2025 and 20 new aqueducts managed by 2030. Commercial feasibility is expected to be ready in the first quarter of 2024.



In the flow of energy

- Progress in the installation and operation of solar panels for the generation of 1,505.22 MWh/year of self-consumption energy in EPM's own infrastructure.

- Handling offers and sales of photovoltaic solar energy to customers.
- Increase of 34.34 % in the share of renewable energies in the Company's generation matrix.
- Reduction of electrical energy losses in the networks.
- Handling of the self-supply and energy use of 5,525 MWh/year at the San Fernando WWTP.
- Modernization of sustainable systems in the infrastructure of EPM's operational and administrative headquarters to achieve greater efficiency in energy consumption, through the installation of air conditioners with refrigerants with lower global warming potential.
- Participation in city actions for sustainable mobility.
- Use of biomethane at the San Fernando WWTP as a renewable gas for injection into the grid.

In the materials and biomass line

- Use of biosolids in soil recovery.
- Use of 71,216 tons of plant residues from logging and pruning, and organic residues.
- Development of waste prevention initiatives.
- Handling of 9.39 tons of waste that reach reservoirs and water treatment plant inlet grates.
- Use of some special and hazardous wastes.
- Reincorporation of materials, by-products or wastes to other production processes and the precise dosing of chemical products in water purification according to water quality, among others.

In the water flow

Development of actions for the **protection of forests, recirculation of water in drinking water treatment plants and reduction of water losses in distribution networks**, among others.

All these actions are aligned with the **National Circular Economy Strategy,** based on the logic of *producing by conserving and conserving by producing.*

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

SDG 9

Industry, innovation and infrastructure

EPM promotes sustainable industrialization and fosters innovation through the development of new lines of business, new or improved products and technology transfer.

Innovation management

In EPM, innovation management focuses on a**rticulating efforts that contribute to the materialization of new solutions, capabilities, and businesses for the business group** in the strategic focuses defined in the planning exercises.

Relevant milestones 2023

Development of the **EPM Challenges program,** managed through Ruta N, to seek creative and high-impact solutions to the challenges of the corporate group's businesses. Since its inception in March 2021, 14 challenges were launched, of which six were executed in 2023:

1. Reduction of water leaks.
2. Implementation of an intelligent fuse solution.
3. Automation of processes in the environmental area.
4. Monitoring of Gas business substation lines.
5. Virtual office in the Metaverse.
6. Deployment of a COIN digital currency.

The initiative has a value of COP 1,200 million and has impacted 120 teams of EPM employees and 133 companies.

Management of the **Innóvate program** to promote entrepreneurship of EPM topics in conjunction with the innovation ecosystem, in its two categories: **Innóvate Descubriendo** and **Innóvate Emprendiendo.**

This is a space provided to live an immersion of knowledge, experiences and proposals that contribute to the construction of a sustainable and innovative world, to

materialize creative proposals related to the Company's strategic focuses: circular economy, energy transition, digital transformation and hydrogen.

- **Innóvate Descubriendo:** The third version of the program had an impact on 350 ninth and tenth grade students, 30 teachers from nine educational institutions and seven (7) schools located in the Metropolitan Area of Valle deAburrá and two (2) in municipalities in eastern Antioquia.

  These institutions presented their most representative projects and received training spaces to finally participate in the selection of the winning educational institution. In a meeting held on November 3rd, 2023, the educational institution Enrique Vélez Escobar was highlighted with its project Acuaponía: sistema para hogares sostenibles (Aquaponics: system for sustainable homes), which aims at the strategic focus of circular economy.

- **Innóvate Emprendiendo:** with the participation of employees from eight (8) companies of the business group in Colombia, Guatemala, Mexico and Panama. The participating teams benefited from an initial training of five (5) weeks.

  Once this training was completed, they presented their projects in a shark tank format before an evaluation jury during the closing and awarding event held in Guatemala at the headquarters of the EEGSA subsidiary, where the projects of the subsidiaries of the business group were highlighted:

  - UBI incubated at CHEC in the coffee-growing region of Colombia
  - Recycling route by ENSA in Panama
  - *Power* by EPM Guatemala
  - JaguarVolt by Afinia on Colombia's Atlantic Coast
  - *Circular Spirit by Ticsa Mexico*
  - *Eco Fiber 360 by EPM*

Extension of the term of investment and liquidation of the first **private equity fund (PEF)** for entrepreneurship and innovation from April 2023 to January 2024. During the divestment process, the exit of invested companies has been managed. To date, the FCP has a valuation of COP 249,000 million compared to COP 126,000 million invested.

540 companies were evaluated for the second **FCP Next Utility Ventures,** in accordance with its investment policy which has a budget of COP 150,000 million approved for 10 years. In 2023, the investment went to the companies Klik Energy, Erco Energía SAS and NEU Energy, and progress was made in the analysis of the investment in Sunco.

Launch of **LAB EPM Communications** as a space created and designed for the development of activities and networking events with actors of the local, national and international innovation and entrepreneurship ecosystem.

Some of the activities carried out in the EPM Lab in 2023 are:

April 27th

Innovation, Entrepreneurship and Technology Virtual Conversation at public utilities.

Presentations by a group of experts.

May 9th and 26th

Classroom training inpersuasive presentations.

30 EPM employees participated.

July 25th

Utility solutions showroom.

2,110 ecosystem stakeholders, among them 30 startups and research groups participated.

September 27th

Conversation on circular economy.

Experts learned about the challenges of the reduction of greenhouse gases.

September 29th

Interaction and co-creation meeting for incubation and pre-incubation stages of the Entrepreneurship Route program.

51 attendees.

November 22nd

Interaction and co-creation meeting with Cenit, ODL and Connect leaders.

Led by Néstor Encinales, director of EPM Hydrogen Solutions.

December 5th

Entrepreneurial Financing Conversation

105 entrepreneurs participated

Energy transition

It is framed as one of the strategic focuses of EPM and its business group, and currently has an important focus on the advancement of the hydrogen implementation roadmap.

Relevant milestones 2023

Creation of the **Hydrogen Solutions department** in the organizational structure of the Company to advance in the implementation of hydrogen. In this sense, a consultancy study was delivered to identify the **most attractive business models in hydrogen** for the business group, whose result shows the export segment is the most important, followed in the national environment by industry and sustainable mobility.

A of the information in benchmarking business models in **distributed energy resources and storage (DERS),** EPM identified and prioritized the most important Firmness for Renewables and Demand Management initiatives. Currently, an energy storage business case is being analyzed in one of the companies of the business group and another one is being structured through the use of specialized software for DERS management.

Construction of a **map of allies** to identify eight potential allies that will allow EPM to scale up the export of green hydrogen to other markets, a round of communications will be held with them.

Design of a feasibility business case for the **export of ammonia,** based on a consultancy study with the support of the Spanish Government.Results are expected in the first quarter of 2024.

Launch of **Hub of Medellín** in conjunction with Ruta N. This space seeks to articulate the knowledge of hydrogen in Medellin and the Aburrá Valley, through an integrated work with universities and other relevant actors in the sector, enhancing capabilities and promoting its transfer for the production of clean energy, contributing to environmental care and decarbonization of the planet.

Progress in the process of installation and assembly of a pilot project for **hydrogen production and use,** located at the Aguas Claras WWTP of the subsidiary Aguas Nacionales, which will initiate the production of green hydrogen.

Completed in December 2023, the **solar community** pilot in **the El Salvador neighborhood** of Medellin, in which the community, EPM, EIA University, ERCO Energía and NEU companies, in cooperation with the Royal Academy of Engineering of the United Kingdom and the University College London (UCL), joined forces in the implementation of this new energy service delivery model, which will boost the energy transition in Colombia.

The pilot had 43 solar modules installed in a community of 24 families, with a power of 465W each, for a total of 20kWp of solar power per photovoltaic (PV) panel that provided 1800kWh-month, which generated approximately a total of COP 8,000,000 in the six months it operated. The energy generated was purchased by EPM, the amount received was divided in equal parts for the 24 families and applied to their utility bills.

Signing of two framework contracts, one with the Universidad de Antioquia and the other with the Universidad Pontificia Bolivariana for three years to develop studies, manage projects and initiatives in **distributed generation, energy storage, energy efficiency, energy demand response and sustainable mobility** in the EPM Group.

Development of business cases for five prioritized **sustainable mobility** initiatives for new business on the horizon - diatomic molecule (H2) and triatomic hydrogen (H3)- ; with information more adjusted to the Colombian market and with the projections of NGV and electric vehicles in the different segments.

Digital transformation

Relevant milestones 2023

Advancement of the **marketplace** through the development of the MVP (minimum viable product)1 of a technological platform, which facilitates interaction and transactions for the purchase and sale of unregulated energy among the different actors.

Identification and socialization of 23 initiatives classified by effort and impact, to prioritize 10 that will allow the Company to begin analyzing new business models for the **Somos offer.**

Launching of **open innovation** challenges in collaboration with Ruta N, the first for the design and development of a working prototype of a **loyalty platform,** based on a cryptocurrency or digital currency; and the second to identify a solver who could develop a pilot that would offer **multiple virtual experiences** -simulations- in the Metaverse.

Progress of the **Trebol Program,** which has three projects under its umbrella: AMI *(Advanced Metering Infrastructure),* Access Networks and Smart Grids, through which the company seeks to modernize and transform the company's

productive processes, leveraged on a higher level of automation, information management, development of new capabilities and an adequate technological incorporation based on the concepts of smart grids, AMI and telecommunications:

1. **Smart grids:** : significant progress is being made in business transformation, for example, with the implementation of the **Consumption Metering Management Center (CGMC)** and the sandbox*[1] process as a reference and innovation platform for the Organization.

In this way, use cases were enabled such as:

a. Remote management of more than 600 public lighting points with various communications technologies.

b. Remote management of renewable energy solutions - self-generation PPA (power purchase agreement) solutions.

c. New functionalities in electric mobility.

d. Intelligent management of the secondary water network.

e. Reading and billing solution for non-interconnected areas - Coverage.

f. Analysis of smart consumption in distribution network and end user.

g. Technical design for monitoring and automation of the gas distribution network, among others.

2. **Access Network:** the vision, design, and structuring of the pilot of a private LTE (long term evolution) network was consolidated, for which purpose the National Spectrum Agency (ANE) and the Ministry of Technologies were contacted. The Ministry of Information and Communications Technology (MinTIC) has requested the loan of the necessary spectrum resource. Currently, the formal request has been filed with the Ministry and approval is awaited to begin the implementation stage of the pilot.

It also consolidated the vision and projection of the telecommunications network in all its segments and began the process of implementing fiber optic rings to complement the current networks.

We accompanied all the stages of the analysis of the purchase of the TELCO AMI network for Afinia, generating all the concepts and technical analysis necessary for decision making. Additionally, full support was given to the strategic and technical definition process for the purchase of the network of the subsidiary ENSA in Panama. Likewise, all the activities corresponding to the TELCO components necessary for the AMI pilot with the scope of the business group were carried out.

[1] *Sandbox: : test environment*

3. **AMI Pilot:** based on a contracting process whose purpose is to "Supply and integrate the components of the technological stack and the services required for the implementation and support of the AMI advanced metering infrastructure at the EPM Group", in the market research phase, potential suppliers were identified that have the technical, economic and administrative capacity to integrate the services of design, supply, implementation and support of the components of the technological stack required for the advanced metering system (AMI) in the EPM Group, including the transfer of knowledge, deployment, monitoring and control of the implemented solution.

This will allow the deployment of AMI in the public energy service, using a scheme of pilots and sandboxes to situate the Colombian reality with real data; test the real deployment dynamics; refine the financial model with real data; obtain inputs for regulatory management; identify alternatives to generate new relationships with customers and; evolve in processes and technologies; among others.

In addition, based on the non-binding offer, progress was made with three suppliers in planning the negotiation and beginning to define the social management strategy to socialize the implementation of this pilot project with the community.

Awards / Recognition

CIER award in the national phase for the best innovation platform and international selection to present Smart Grids and *Smart Cities* initiatives at the *Brussels Urban Summit 2023,* thanks to the Smart Grids project.

8 DECENT WORK AND ECONOMIC GROWTH

SDG 8

Decent work and economic growth

EPM is committed to the **protection of labor rights and the promotion of a safe working environment for all its workers, both in its own operations and in those carried out through contractors.**

In this sense, the EPM Group contributes to theSDG 8 Decent work and economic growth by supporting productive activities in the territories where it operates, generating decent employment and developing its suppliers.

EPM People

8,303 employees

Relevant milestones 2023

EPM's talent mobility figures are evidence of the quality of working conditions in the Company through the professional growth of our employees:

- 58 promotions
- 89 changes of venue
- 386 changes from one area to another
- 384 changes due to selection process
- 81 decision change
- 17 relocations
- 194 transfers with vacancy
- 45 transfers without vacancy
- 173 reinstatements
- 370 income from new partners
- 4.55 % was the turnover rate in EPM's personnel plant

Management of the **apprenticeship and internship program.** The apprenticeship quota was exceeded in 2023, EPM hired 731 apprentices, of which 414 had a current contract until December 31st.

With interns, internship agreements were signed in compliance with the National Government's initiatives for the young state program or first job internships, in which 141 university students were hired, 55 of whom had contracts in force until December 31st.

These initiatives are based on Corporate Social Responsibility as the axis and driving force to contribute to sustainable human development, generating social, economic and environmental value.

Working hand in hand with educational institutions to provide **professional development opportunities for the population** through the entry of 10 inclusion apprentices into the SENA-Maestro Guillermo Vélez Vélez alliance; and 45 women who are trained as technicians and technologists in industrial electricity with SENA in order to reduce the closing of gaps in highly masculinized training.

Positioning the apprenticeship and internship program as a **seedbed for attracting new talent,** thanks to EPM's affiliation with 102 students who participated in the program, 51 of them university students and 51 in technical and/or technologist training during the last five years.

The Company's **training processes** have impacted 8,317 people in 327,854 hours of training, which corresponds to 94% of the total number of EPM employees.

Periodic medical evaluation of 2,130 operational and 2,016 administrative employees through The Company's health diagnosis is built with this information.

Development of spaces for inductions and training in accordance with risk factors and regulatory requirements in **occupational safety and health** to improve the conditions and The company's work environment, as a mechanism to promote the maintenance of the physical, mental and social wellbeing of employees.

In this regard, contractors were monitored for compliance with legal and company regulations by means of field verification, periodic meetings and support in the qualification of compliance by the administrative managers of each contract.

We also updated the technical guidelines for high-risk activities and created an accident intervention plan that seeks to reduce serious and fatal accidents in the operation, under the Vision Zero methodology.

Continued identification and management of the risks associated with people in positions of **operational safety,** for which the individual vulnerability was assessed in 374 people through the psychophysical profile and operational safety competencies. In addition, training processes were developed in these areas.

We implemented the assessment and analysis of risk management levels associated with fatigue for 160 people who perform critical positions and who, due to operational demands, have night shifts. We also accompanied the analysis and dissemination of shift schedules in the offices of the Vice-Presidencies of Power Generation and Water and Sanitation.

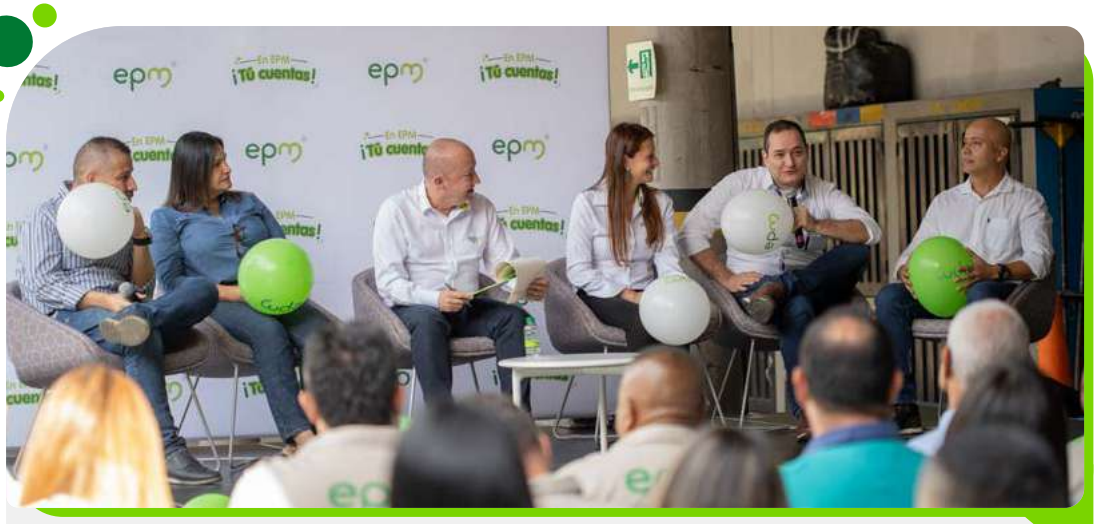
Likewise, progress was made in the socialization of error management and implementation of cognitive ergonomics practices for business control centers, with the purpose of increasing levels of situational awareness in people.

Relations with **union organizations** and the fulfillment of contractual commitments result in well-being for both the Organization and its related personnel:

- **Sintraemsdes:** signing of the collective bargaining agreement within the direct settlement stage, on April 28th, 2023, effective for two years. This benefits approximately 3,500 workers.
- **Sintraelecol:** presented a list of demands on February 10th, 2023, but it was not possible to reach an agreement in the direct settlement stage; therefore, this conflict is in the Court of Mandatory Arbitration.
- **Labor ruling for the reinstatement of former employees of EADE:** administrative acts number 20230110001287 and 20230110001288 of January 17th, 2023 ordered the effective reinstatement of 129 employees of the extinct COMPANY ANTIOQUENA DE ENERGÍA S.A. E.S.P. - EADE S.A. E.S.P.-. Today, 121 people are employed and working, since six of them have resigned voluntarily and two have obtained their pensioner status.

  Additionally, as of December 31st, 2023, 162 resolutions were notified to the legal representative and orders of the Fifth Labor Court of Medellin were paid, which is equivalent to the net amount of COP 92,034,192,376.00, EPM has paid a gross amount equivalent to COP 105,298,773,120.00.

  This concludes the payment of the salaries and benefits ordered by the court, pending the payment of life insurance and the conventional benefits and resolutions.



Development of initiatives to strengthen EPM's **internal communication capital** with a focus on trust management and minimization of rumors within the Company::

- Execution of the **Tu Cuentas! Communication Workshops.** The objective of this event is to decentralize internal communication from the Company's headquarters to other locations in the Aburrá Valley and other regions where the Company works, in its majority, through technical and operational personnel, presenting their stories and recognizing how they contribute to the achievement of business objectives from their role.

  In 2023, the workshops were held at the Hidroituango power plant, Rionegro Dispatch, Belén Aqueduct and Sewerage Dispatch and in Santa Fe de Antioquia, and achieved a satisfaction level among attendees of 95.25%

- Development of **spaces for achievements and challenges** to present achievements and highlight the contributions of the People, with teams from the vice presidencies of Energy Generation; Energy Transmission and Distribution; Water and Sanitation; Gas; and Commercial; Projects and Engineering; New Business, Innovation and Technology; and Supplies and Shared Services.

- Delivery of the results of the **psychographic characterization study of EPM,** in which 828 employees from different segments of the Organization participated and which has a reliability level of 95% and a margin of error of 3.23% for the total population. The results show preferences in communication habits, emotions, use of free time and tastes and preferences, which will be an input for the communication strategy that generates value for the Organization and for the collaborator.

Awards/ Recognition

8.th place in Merco Talento 2023 ranking, among the 100 most attractive companies to work for in Colombia. EPM remains for the 14th consecutive year among the top ten companies in the study.

Awards / Recognition

Special recognition for the implementation of Sustainable Business Mobility Plans (PLANES MES), for their commitment to the metropolitan territory, promoting sustainable and responsible habits in the daily commute of their employees.

Suppliers and contractors

EPM contributes to the economic growth of the territories where it is present through the generation of value chains and the **strengthening of the relationship with nearly 14,346 suppliers** registered and approved in the Ariba system, who support EPM Group's operations nationwide.

24,333
external employment generated

1,363
active contractors

Relevant milestones 2023

Procurement and contracting

The purpose of contracting goods and services is to meet the Organization's operational and administrative needs, and to support social and environmental policies to contribute to the sustainable development of the territories impacted by the Company's operations.

Management of 60,524 contracts valued at COP 8.7 billion, the largest amount was presented in the modality of Public Request for Proposal (53%), mainly in civil works construction contracts for the start-up of the new plants generation units five (5) to eight (8) of the Ituango hydroelectric project and the supply of energy to the regulated market. Fifty-one percent of the contracts awarded were awarded to domestic suppliers.

Social contracting

It is a strategy to contract works and services with community action boards (JAC) and associations of community action boards, to contribute to the strengthening and sustainable development of the communities where it operates.

During 2023, through **social contracting,** 108 contracts were signed for:

COP 96,792 million **social contracting awarded**

Suppliers and contractors

The relationship strategies with suppliers and contractors (P&C) are aligned with the strategic direction of the EPM Group, so that contracting is a lever for the strategic objectives and the sustainable and competitive development of the territories, by strengthening the local productive fabric, the development of suppliers and the establishment of adequate conditions for indirect workers.

Programs implemented during 2023:

Program	Topics	N °. of people benefited
Supplier development program	**Skills school:** learning space organized with SENA for capacity building in the construction trade, operation and maintenance of water and sewage networks, aimed at officers and assistants and the community in general.	10 certified personnel from a contracting company.
	Thermal and electro fusion course: training coordinated with SENA to strengthen the knowledge and performance of operating personnel and contractors in the water sector, on specific topics such as the welding of polyethylene pipes by thermal and electro fusion.	48 people certified from 14 contracting companies.
	Reading and writing course: a training space offered by the EPM Foundation, which encourages students to approach the process of introduction to reading and writing.	10 certified individuals from four (4) contracting companies.
	Certification of labor competencies to comply with Resolution 0330 of 2017: granted by the SENA to the personnel linked to the operation and maintenance of water and sewage systems, in different standards.	396 certifications delivered in four standards to 244 people from 18 companies belonging to the water business.
	Certification of labor competencies in Energy Transmission and Distribution: carried out in conjunction with SENA, tocomply with Resolution 5018 of 2019.	438 certifications delivered to four (4) contractors.
	Supplier development partnerships: supplier development program with the Swedish Workplace Program (SWP) and Enecon S.A.S, T&D contractor, to promote good practices with local companies that have been subject to compliance and due diligence studies.	1 company impacted.

Program	Topics	N °. of people benefited
Human Rights (HR): implementation of actions that promote Respect for Human Rights in the Supply Chain.	Development of different actions to strengthen in EPM's P&C actions related to the respect and promotion of human rights, diversity, equity and inclusion. These strategies included communication bulletins, awareness-raising and training sessions, among others.	85 companies with about 105 people impacted. 35 incidents were dealt with through the human rights complaint mechanism for contractor personnel.
Relationship plan with P&C: strategies carried out during the to strengthen communication, dialogue and relationships with P&C	▶ Carrying out events with P&C on topics such as gender equality, human rights, climate change, invoicing, etc. electronic, occupational safety and health (OSH), supplier registration and development, among others. ▶ Development of the 10th. ° Meeting of P&C EPM Group and V edition of Technical Seminars, with topics such as energy transition, circular economy, cost-effectiveness of operations and digital transformation. ▶ The relationship with the P&C was also strengthened through the different communication channels. EPM Group's Services Group Line "Te Guío", WhatsApp Business hotline, web portal in the P&C section and the relationship mailbox cyproco@epm.com.co. Through these, communications were sent and information was shared on updates and new guidelines on contractual issues, events and monthly newsletters.	▶ 18 events held with close to 5,400 people participating. ▶ 37 conversation spaces and more than 700 attendees and nearly 2,500 in virtual mode. ▶ 85 communications sent to approximately 14,436 registered suppliers in Ariba.

Other arrangements:

Management of the dispatch of unit three (3) and four (4) plugs (4) of the Hidroituango central from Zagreb, Croatia, on the Antonov-124 aircraft, with support from the Foreign Trade Unit.

Nationalization of the elements necessary for ***grouting* injection,** coming from Malaysia and Mexico, as a fundamental contribution for the realization of underwater works.

Management of **benefits from the Supply Chain** for EPM for COP 180,854 million.

10 REDUCED INEQUALITIES

SDG 10

Reduced inequalities

EPM seeks to consolidate a **culture of inclusion, respect for diversity and gender equality** to provide opportunities to close the existing gaps in the work environment.

People and culture

EPM understands culture as a living process, which starts with the people and is traversal to each one of them, which is built collaboratively and is accompanied in such a way that culture is not seen as a point of arrival, but as a dynamic process that is always in motion.

Therefore, through cultural evolution, healthy and agile organizational contexts are fostered, facilitating the adaptability of people in the face of changing and uncertain scenarios, as well as the recognition of their responsibility in their actions and contributions to the business purpose, in connection with others. The main means of leveraging this evolution is conversation, which enables the coordination of collaborative actions to live our purpose and achieve the organizational strategy.

People and culture mobilizers are proposed to promote a conscious, healthy, and agile work environment based on Conscious Leadership; Diversity, Equality and Inclusion (DEI); Quality of Life and Well-being; and Capability Development.

Relevant milestones 2023

Conscious leadership

Training in **Conscious Leadership** in training spaces of the School of Leadership with more than 2,391 participants and in two meetings of EPM managers which brought together close to 240 people.

Diversity

An organization open to **diversity** in which talent is sought every day to contribute to the company's purpose:

- 10 trainees with disabilities were admitted for their academic internship as administrative assistants.
- The SENA apprenticeship program has 21 students in the industrial electricity technology training, specifically a group of female electricians in training phase, who are in the lective stage the female Electricians program has been carried out hand in hand with the DEI initiatives, in order to close the training gaps for women in the Organization.
- The Company is making progress in labor inclusion, currently 85 people with disabilities work in the Company, which represents 1 % of the personnel.
- Participation in the program El poder de la diversidad of W Radio and Caracol Radio, with the case of a SENA technologist apprentice who is part of the *silver* talent population -71 years old- and with a disability -oxygen dependent-.
- Approval of gender criteria in the composition of the Board of Directors of EPM-Dec. 743-.

Capacity building

Enabling the development of EPM's distinctive capabilities such as: Integrated to the Territory, Being Adaptable, Excellent in what we do, Being Digital, and Innovating to Transform; to contribute to the fulfillment of the Organization's strategic objectives.

- Compliance with 88 % of the change plans of the projects and initiatives, as well as the implementation of the EPM People **Adaptability Training program.**
- Definition of the new operating model for the deployment of practices and support to the multi-capacity teams in the Organization, within the framework of Intelligent Process Improvement (MIP).
- Closing of the Challenge Mobilizers program, which achieved benefits of COP 54,000 million and impacted 17 EPM processes.
- Training to 53 Company leaders in *Lean Six Sigma Champion* methodology.
- Certification of 40 people in *Lean Six Sigma Yellow Belt* methodology and 21 people in *Lean Six Sigma Green Belt.*
- Development of 16 *Kaizen* events.
- Certification of 79 civilian developers.
- Implementation of 215 workflows (BPMS) and 148 automations (RPA- RDA), representing a benefit of more than COP 12,000,000 pesos.

Quality of life and well-being

Development of articulated strategies at the organizational level in **quality of life and wellbeing** with more than 136,884 participations in talks, cultural and sporting events:

- 10,169 employees and their families attended the Family Day celebrations in the Metropolitan Area and the North and Northeast regions (8,883 attendees) and in the West, Southwest, East, Lower Cauca and Urabá regions (1,286 attendees).
- 2,776 attendees at the EPM Classic Day.
- 217 attendees at the Secretarial Support Day.
- 956 employees completed five-year terms (5, 10, 15, 20, 25, 30, 35 and 40), so the Company held Years of Service celebrations for 836 employees who completed between 10 and 40 years, of which 437 attended.
- 73 employees participated in the Vital Program for pension preparation.
- 311 attendees were at the Tribute to retirees and pensioners.
- 1,064 permits were registered in the Tiempo para tu Bienestar program.
- 65,847 benefits delivered to EPM People.
- 47,993 instructional courses delivered.

Telework

Enrollment of 2,940 employees in the supplementary, autonomous and mobile telework modalities, which corresponds to 35% of the total EPM plant. In this way, the Company adapts to the needs of employees and maintains service levels, contributing to the balance between personal, family and work and to the construction of healthier and more sustainable environments.

Awards / Recognition

Third place in the **Comfenalco Antioquia 2023 Inclusion Awards**, in the category **Inclusion of people with disabilities in the workplace,** EPM participated in this call with 26 other companies from Antioquia.

Customer-focused organization

As a customer-centric organization, **EPM aims to make it easier for its customers and users to manage their requirements, guaranteeing access in an agile and secure manner;** and for this, digital transformation and the optimization of procedures leverage and contribute significantly.

Relevant milestones 2023

With the different **Customer and Community Education strategies,** 221,347 activities were carried out, such as training days, home visits, workshops, Customer Days, talks, leaders network, contests, among others. These initiatives maintain contact and proximity with more than 544,000 users of all segments directly in their territories in all sub-regions of Antioquia.

Publication of two new transactions on the web, 27 in web chatbot and WhatsApp and six (6) in the mobile application, and 24 robotic automations were developed. Additionally, the implementation of Ema as a humanoid robot version is worth highlighting. It performs transactions aimed at guiding customers and users, teaching efficient use of services, consulting the balance of the bill and generating credits.

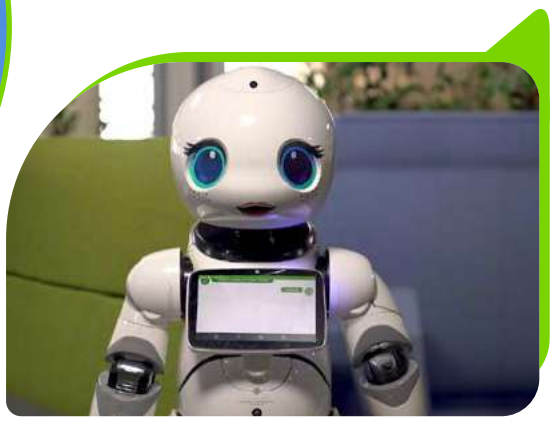
Likewise, transactions were arranged through Ema to know if the client will have any interruption of the water supply service, as well as to know the availability and location of tanker trucks for the supply of the liquid.

EPM Service Channels

- **Face-to-face channel:** 939,645 transactions attended, of which 136,641 were carried out in orientation schemes to keep customers from having to go to a service module.
- **Telephone channel:** 4,217,711 calls answered, of which 2,040,688 were outgoing calls and 9,036,045 were text messages sent.
- **Written channel:** 280,087 transactions attended and 73,707 data updates.

- During 2023, no fines have been received from the Superintendency of Residential Public Utilities; likewise, this entity confirms 79 % of the decisions taken by EPM in the instance of claims/ appeals filed by users.

- **Self-service channel:** 4,805,839 transactions Self-service by customers, of which 19 % were in Self-service modules, 38% on the web page and 43% through Ema.
- **Humanoid Ema:** participation in 52 city events, 5,242 transactions carried out and more than 11,236 people benefited.



- **Orientation schemes:** 2,879 transactions handled to resolve concerns before going to a service module.
- Implementation of the **preferential attention module for the Corporate segment.**
- After analyzing the impact on users and optimizing the Company's resources, **the customer service office in El Poblado was closed** in May 2023. **Adjustments were made to the La Sierra and San Roque regional offices** due to the transfer of premises.
- **Office collection modules:** 18,942 transactions handled, for a total of COP 5,391 million collected.

EPM at your door

EPM provided more than 53,000 services to household and small business customers for the installation, maintenance and repair of household appliances and gas appliances, as well as the repair of energy and water networks.

This offer makes it easier for EPM's customers to have their equipment and networks working properly, guaranteeing the enjoyment of residential public utilities and generating additional income for the Company. To date, revenues of more than COP 7,200 million have been received since the offer was launched in 2020.

Commercial invoice payment alternatives

Implementation of options to reduce the number of days of suspension of residential public utilities services for users who have difficulty paying:

- **Pay as you go** for bill payment in up to five (5) installments or partial payments every month.
- **Other existing payment alternatives** such as financing, refinancing, restructuring and installments, for the benefit of customers, mostly residential of strata 1, 2 and 3.

Invoice payment options	2023
Pay as you go	348,514
Arrangements and payment options	74,342

New subsidiary Somos Servicios Integrados S.A.

Activation of the **new subsidiary Somos Servicios Integrados S.A.,** after the ruling issued on January 26th, 2023 by the State Council, according to which EPM cannot continue to develop the SOMOS financing program, because it is not included in its corporate purpose.

Consequently, as of May 26th, 2023, EPM suspended the operations of the program and began the process of communicating to customers and other interested publics about the measures adopted in compliance with the court ruling.

This decision was only applicable to customers of the Somos program in Antioquia; in the other subsidiaries of the EPM Group, the program continues to operate normally.

Thus, in September 2023, the new subsidiary Somos Servicios Integrados S.A. was legally established in Panama, with operations in Colombia through a branch office.

The new subsidiary will operate with the following characteristics:

- Private company.
- Service portfolio associated with the acquisition of items related to home utilities and has a new category: home furniture.
- Processes are 100% digital.
- Electronic invoicing.
- Availability of traditional service channels and digital channels such as: WhatsApp and self-service, Web Portal and transactional App.
- As of August, it has 1.1 million customers, of which 409,000 have credit.

Somos figures *

Somos EPM	2020	2021	2022	May-23
Somos Credit customers	31,488	76,131	45,496	**8,914**
Sales COP million	129,745	195,679	165,285	**48,801**

**Until its termination in May 2023*

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

13 CLIMATE ACTION

15 LIFE ON LAND

17 PARTNERSHIPS FOR THE GOALS

Composite SDGs

Territorial Integration Model (MIT)

As a strategy of permanence in the territories, EPM implements the Territorial **Integration Model (MIT)** under the premise of sustainability and competitiveness, with the purpose of cooperating to the progress and development of the regions in which it operates, focusing on sustainable human development, based on an ecological, physical-spatial, institutional and socioeconomic reading of territorial structures.

Relevant milestones 2023

MIT Bajo Cauca

Support for the development of the Bajo Cauca with the **participation of inter-institutional spaces** that seek alliances and collaborative networks such as **the University, Business, State and Society Committee (CUEES) Bajo Cauca,** a space that brings together institutions that work for sustainable territorial development. As well as the Committee The project is a technical program for fisheries and aquaculture in alliance with the National Aquaculture and Fisheries Authority (AUNAP), Córdoba University, Fundacion Humedales, National University, among others, whose objective is to work for the recovery of fisheries and the welfare of fishing communities in the middle and lower Cauca River basin.

Strengthening 53 organizations located in the municipalities of Valdivia and Tarazá, Cáceres, Caucasia and Nechí, which are part of Hidroituango's area of interest, providing training spaces and opportunities for income generation in line with the potential of the territory, thanks to the agreement signed in 2021 for the strengthening of solidarity organizations in Bajo Cauca signed between EPM, the Special Administrative Unit for Solidarity Organizations (UAEOS) and the ANDAP Foundation.

Connection of approximately 7,553 families through the development of **electrical interconnection works** framed in the housing adaptation strategy The company's goal is to provide **universal access to energy services.**

Formulation of restoration **plans for the recovery of swamp systems** based on the baseline of fish diversity, fish routes, and migration, spawning areas, fishing, among others. The plans were approved by the National Environmental Licensing Authority (ANLA) in 2023.

Identification of **ecological restoration** in the area of direct influence of the Hidroituango power plant and in the flood plain -Bajo Cauca- as a possible transversal strategy with additional efforts to what is already established as environmental commitments.

MIT Urabá

Connection of more than 455 families to gas service in the rural sector of Zungo Embarcadero thanks to the agricultural companies Ibiza and Banafrut, which provided their easements for EPM to extend their networks to the community. This is achieved through the joint efforts of the Carepa Mayor's Office and the Zungo Embarcadero JAC.

The commercial operation of the 110 kV Urabá - Nueva Colonia - Apartadó Connection begins to strengthen the reliability and availability of electricity for more than 600,000 customers in Urabá. This milestone allows the subregion to be prepared energetically for the road and port development challenges, even though the first port currently under construction is two years away from completion.

Water protection of 977 hectares (ha) is advancing since 2022 with the EPM-Aguas Regionales and Corpouraba agreement. This year, 582 ha of forest will be conserved, out of which 100 ha will be conserved by 147 families from the Las Playas de Apartadó indigenous reservation and 482 ha by 55 families from Mutatá, Chigorodó, Apartadó and Turbo.

Replacement and extension of 10,740 m of water and 9,488 m of sewerage networks to reduce the **gap closure of these two services,** as well as to increase the coverage, quality and quality indexes, quality and continuity of the municipalities of Carepa, Apartadó, Turbo and Chigorodó.

The Laureles collector operation in the municipality of Apartadó, with an investment of COP 4,238 million and the installation of 660 m of piping to improve the **provision of sewage services.**

Expansion of the Chigorodó water treatment plant from 100 to 170 l/s, with an investment of COP 4,260 million pesos to **provide water** for the people.

Signing of the inter-administrative cooperation agreement between the Ministry of Housing, City and Territory; the Government of Antioquia; the District of Turbo; and the subsidiary Aguas Regionales EPM; by means of which the **Intradomiciliary Water and Sewage Connection Project - PCI of the District of Turbo,** Antioquia was officialized, for a value of COP 4,315 million, benefitting 418 homes through the construction of up to five (5) toilets and connection to a safe sewage network that reduces pollutants discharged into pipes and tributaries and mitigates diseases in the inhabitants of the sector.

Improved quality of life for 355 families in the Shaday sector in Apartadó, Manantiales del Abibe in Chigorodó and Porvenir in Carepa, by guaranteeing the **provision of quality water supply and sewerage services,** with greater coverage and decreasing the water loss indicator.

Legalization of the energy service for 4,900 families in settlements with prepaid meters, thus guaranteeing the safe use of the service in a technical manner and reducing energy losses. These actions were coordinated with the participation of the municipal administrations of the territory.

Water resource, biodiversity and climate change

EPM is committed to the protection of watershed systems and reservoirs, in addition to their own; to contribute directly to the achievement of SDG 6 Water and Sanitation, 13 Climate Action and 15 Life and Terrestrial Ecosystems.

Integrated management of water resources and biodiversity

The **EPM Group** contributes directly, and in alliance with other stakeholders in the territory, to the general challenge of **working for the conservation of biodiversity and ecosystems, caring for the vital water cycle and water security.**

As a business group a commitment was made to

contributing to the protection of 137,000 hectares in the watersheds that supply the Group's systems and reservoirs, in addition to its own watersheds, by 2025;

these actions contribute directly to the achievement of SDG 6 Water and Sanitation, 13 Climate Action and 15 Life and Terrestrial Ecosystems.

Relevant milestones 2023

Protection of water resources and biodiversity: in 2023 EPM contributed 8,491 ha of restoration and reforestation, for a Group accumulated of 132,470 ha since 2016 in forest conservation, ecological restoration, and reforestation actions, sustainable practices and uses, compensations and new protection areas in areas of influence.

Restoration and reforestation: thanks to the delivery of 2,698,693 seedlings in the watersheds supplying the reservoirs for power generation and drinking water supply, through EPM's Forestry Promotion program.

The REDD+ project contributed to the **conservation of 6,935 hectares of natural forests** in protection reservoirs Miraflores, Riogrande I, Porce II and Porce III, avoiding deforestation emissions of 1,325,021 tons of CO2 over a 20-year period and favoring ecosystem services, habitat and refuge for fauna and flora.

Support for the **voluntary environmental services payment scheme** in EPM's areas of influence, by linking 137 families to the conservation of 2,398 ha of strategic natural forests for water, biodiversity and environmental services and the improvement of the quality of life of families and their communities.

Water protection and biodiversity initiatives were materialized through direct actions and in **alliance with other actors** through agreements such as:

- EPM-Cuenca Verde
- EPM-Cornare
- EPM-municipality of Envigado
- EPM-Aguas Regionales-Corpouraba
- EPM-Corporación Parque Arví to manage the Integrated Forest Management Plan for EPM properties and other prioritized sites in the Piedras Blancas and La Honda creek watersheds.

Climate change

EPM Group Climate Strategy

With the objective of achieving resilient and carbon efficient businesses by 2030, as well as reaching a carbon neutral operation by 2025, the EPM Group seeks to contribute to Colombia's commitment to the Paris Agreement of 2015, updated in 2020, which seeks to **reduce greenhouse gas (GHG) emissions by 51% by 2030** (base year 2010).

Relevant milestones 2023

Carbon footprint or inventory of GHG emissions

The EPM Group estimates the **GHG emissions inventory every year.** The carbon footprint of scopes 1 -direct emissions- and 2 -indirect emissions from electricity consumption- for EPM 2023 was 370,218.84 tCO2e.

Management of the **emission reduction projects portfolio** in order to have carbon credits available, either for offsetting the footprint or trading to third parties:

- Registration of the Porce III hydroelectric power plant with the Cercarbono Carbon Certifier as a GHG emission reduction project for the period 2011-2030.
- External verification in 2023 of 1,555,912 tCO2e reduced during 2021 and 1,686,013 tCO2e reduced in 2022 from the operation of the Porce III power plant.
- Estimate in 2023 of 224,885 tCO2e reduced from the operation of the La Vuelta and La Herradura mini-hydroelectric plants for the period 2020 - 2022.

*In 2023, **contracts for 1,750,000 carbon credits were** closed. Sales in 2023 were 1,125,510 credits for an income of COP 18,657 million.*

Energy efficiency

Development **of energy efficiency solution offerings and digital transformation initiatives,** reflecting improved business operation performance and the generation of opportunities for smart territorial development. With the purpose of addressing all the issues associated with energy efficiency in a coordinated manner, and to address the great challenges and opportunities it represents on the road to decarbonization, climate resilience, digitalization and the development of new business models.

Most of the EPM Group companies made progress in solar systems, in search of clean energy solutions for **self-consumption in their facilities.**

Study of different technologies associated with energy storage which, in conjunction with the solutions implemented from wind and solar generation and sustainable mobility have become innovative business models with a significant impact on the electricity, industry, and transportation sectors in Colombia.

The **companies in the Energy Transmission and Distribution business** continue to **develop initiatives to reduce energy losses and sulfur hexafluoride** (SF6) **leaks.**

Self-generation of 83% of the electricity required for the operation of the **Aguas Claras WWTP** as a mechanism for **self-supply and energy use.**

Likewise, **civil works were completed for the use of biomethane from the San Fernando WWTP** as renewable natural gas for the Company's distribution network from the biogas generated.

Non-conventional Renewable energies (NCRE)

The implementation of initiatives that allow diversifying the energy mix of EPM and its business group continues. In this sense, works continue for the construction of the **Tepuy solar park**, located in the south of the municipality of La Dorada in the department of Caldas. This project ensures compliance of the commitments acquired during the long-term auction of non-conventional renewable energies programmed by the National Government.

The works are 85.9% complete with an investment of COP 53,849 million. Its construction has generated more than 200 jobs, 89 on site and 67 of these for people from the region. According to simulations, the project is estimated to generate an average of 214.5 GWh/year in its first year.

Obtained the **environmental license for the 200 MW EO200i wind farm in Guajira;** filed the environmental license application for the **15 MW Puerto Wilches solar photovoltaic project** with the Corporación Autónoma de Santander; installed 10 MWp in **distributed solar solutions** for 17 projects; and progress is being made in studies and procedures for other NCRE initiatives for the portfolio of EPM.

Solar panels for energy self-sufficiency

Generation of 1,505.2 MWh in the systems installed in EPM's headquarters -EPM Building, Water Museum, EPM Library and San Fernando WWTP-, connected with **energy saving and efficiency actions** in the processes and facilities of the corporate group.

In the **sale of solutions to other branches,** the Coverage project La 30 -isolated 0.93 kWp + interconnected 10.23 kWp, the gas decompressor in Chigorodó -5.64 kWp- and Aguas Regionales in Urabá -44.64 kWp- came into operation, for a total of 61.44 kWp installed.

Air Quality Program

Development of **sustainable mobility** initiatives, including NGV solutions, electric mobility and the sustainable mobility business plan (PEMS).

EPM maintains its commitment to **air quality** through the implementation of initiatives that contribute to its improvement and inter-institutional strengthening with the District of Medellín -Air Quality Pact-, the Naturgas- AMVA-EPM agreement and the joint agendas of the Ministry of Environment and Territorial Development, Transportation and Finance.

The Company maintains five **flexible schedules for the EPM People** and continues with the Bike to Work program in which 640 workers report their trips in the available application. These actions meet the goal of implementing the PEMS and promoting a clean transportation culture.

In **electric mobility** at the end of 2023, there are 5,279 vehicles in Antioquia, including 100% electric and plug-in hybrids. Of these, 2,911 correspond to users of EPM's public charging offer.

Christmas Lighting

8 DECENT WORK AND ECONOMIC GROWTH
17 PARTNERSHIPS FOR THE GOALS

Illuminating the Christmas season is a commitment that EPM reaffirms every year to contribute to the construction of citizen culture, family gatherings, the promotion of values, the preservation of the environment, and the promotion of the traditions of the community and the appropriation and enjoyment of public space, through the traditional **Christmas Lights.**

2023

Inspiration

100 years

de Disney.

Mounting data

27,000

hand-woven figures
with six (6) tons of metalized paper installed.

9 million

LED bulbs,
650 km of luminous hose with LED technology and 180 tons of iron.

350 jobs

200 for mothers who are heads of household.

COP 21,000

billion invested.

Antioquia

14 municipalities

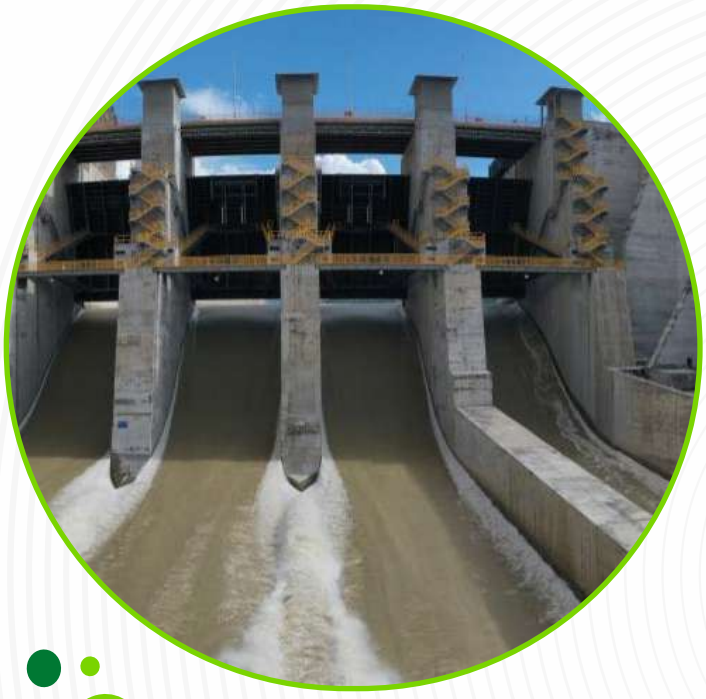
lit up in the region thanks to the Christmas Lights Let's Ignite Joy contest: Arboletes, Betulia, Campamento, Caracolí, Caramanta, Cisneros, Jericó, Liborina, Nechí, San Pedro de Urabá, Tarazá, Toledo, Valparaíso and Yolombó.

About

3,113,000

people
visited Parques del rio, the central node of Medellín's Christmas Lights for 46 days.

Financial performance



Financial Performance EPM

COP 6.8 billion in ebitda, with **20 % growth**

COP 3 billion in infrastructure investments, with a **6%decrease**

COP 1.7 billion of transfers to the District of Medellín, with a **6% decrease**

EPM's financial results take place in the context of a slowdown in economic growth of 0.6 %, compared to the figure reached in 2022 of 7.3 %. In this sense, the Consumer Price Index (CPI) and the Producer Price Index (PPI) show a decreasing trend, contrary to the behavior presented in recent years, with impacts on operating costs, investments in infrastructure and regulated items and services.

Relevant milestones 2023

Entrance of power generating units three (3) and four (4) of the Hidroituango power plant.

EPM **capitalized the subsidiaries Afinia and Aguas de Malambo** for COP 600 and COP 2 MM, respectively.

EPM in 2023 **returned COP 1.7 billion to the country** in taxes, fees and contributions.

EPM and Millicom jointly capitalized UNE EPM Telecomunicaciones for COP 600 MM, Agreement that allows to financially strengthen the company and its ability to execute its investment plan.

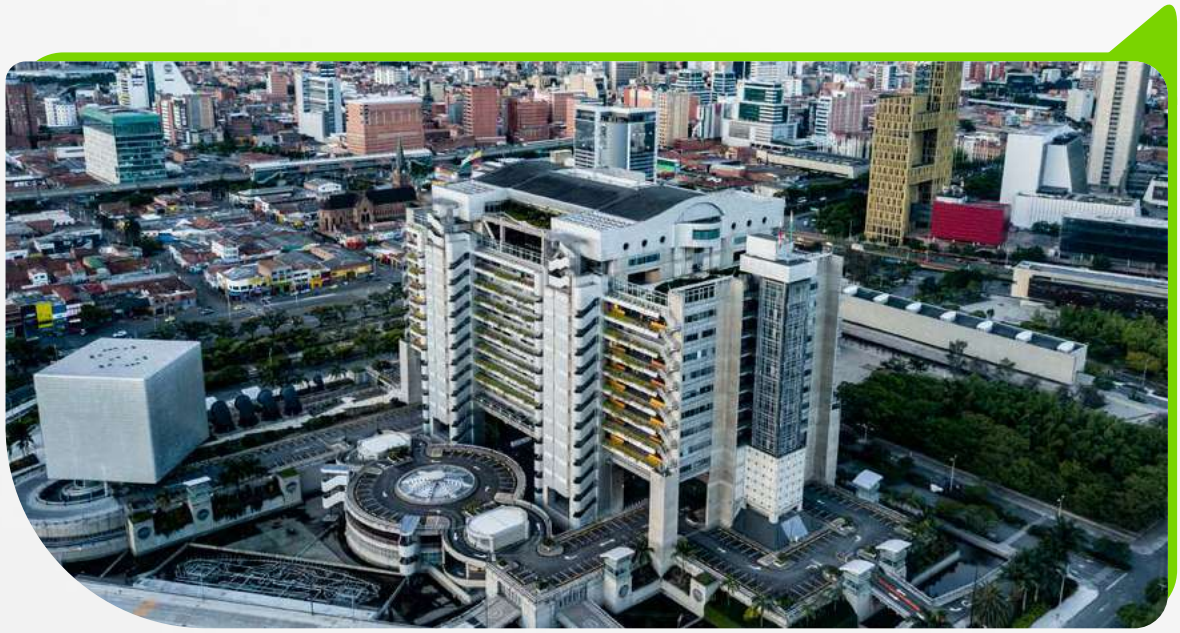
Afinia received an intercompany loan from EPM for COP 450 MM, destined to the investment plan and two **capitalizations of COP 600 MM** for the operation.

The **book value** of portfolio investments in controlled and non-controlled companies amounted to COP 15.2 billion at the end of 2023.

EPM received dividends for COP 631 MM, 72 % from Group subsidiaries and the rest from the Group's subsidiaries companies that are not controlled.

EPM sold Patrimonio Autónomo Financiación Social to the company **Somos Servicios Integrados S.A.** for COP 281 MM.

Within the framework of **the Arbitration Court set up by the Sociedad Hidroeléctrica Ituango** S.A. E.S.P.- Hidroituango against EPM on December 7th, 2023, it determined that the Company had breached the BOOMT (*Build, Own, Operate, Maintain and Transfer)* contract.

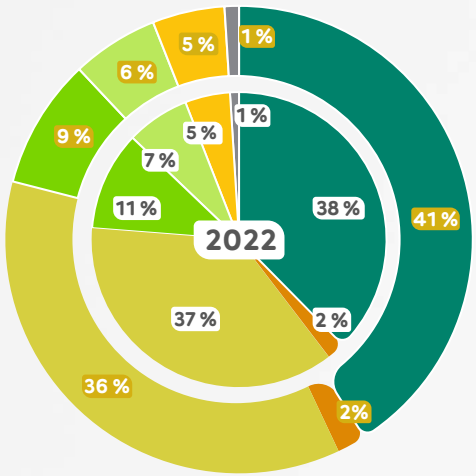


Financial
Results 2023

Profit of EPM parent company amounted to COP 3.8 billion, 24 % higher than the same period of the previous year, which includes the result of the subsidiaries through the equity method for COP 1.6 billion, which means that **the subsidiaries contributed 41 % to the profit of the Parent Company.**

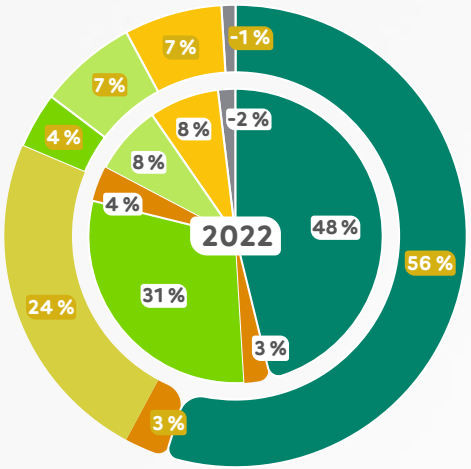
Income

2023



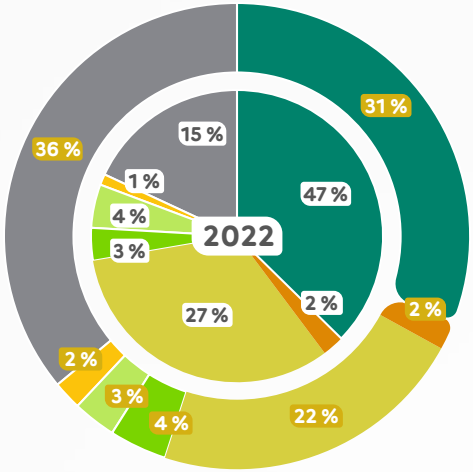
Ebitda

2023



Integral result

2023



Power Generation | Energy Distribution | Energy Transmission | Gas | Water Supply | Wastewater Management | Other segments

EBITDA amounted to COP 6.8 billion, an increase of 20 %, COP 1.1 billion more than the previous year. In turn, the ebitda margin rose to 42%.

The ebitda by segment was established as follows:

Power Generation

An increase of 39% was recorded over the previous year, equivalent to COP 1 billion, due to higher average stock market prices for the use of thermal plants to regulate reservoirs, as a result of the lower availability of water resources due to the effects of the El Niño phenomenon.

Energy Distribution and Transmission

Decreased by 4 % with respect to 2022, equivalent to COP 77,270 million, explained by an increase in revenues in lower proportion to costs and expenses as a result of the higher cost of purchased energy, derived from the behavior of stock market prices due to the El Niño phenomenon, the effect of macroeconomic variables and a greater deterioration of the portfolio.

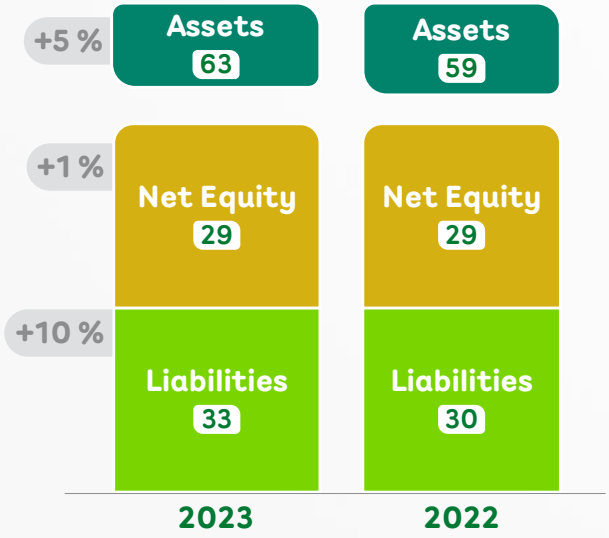
Gas

An increase of 26 % was recorded, higher than in 2022 with COP 53,703 million, due to the increase in revenues, mainly in the wholesale market.

Water Supply, Wastewater Management and Solid Waste Management

Increased ebitda by 6 %, equivalent to COP 57,430 million more than the previous year, explained by higher revenues as a result of tariff indexations according to the regulatory framework and an increase in users.

Total assets amounted to COP 63 billion, **equity** COP 29 billion and **liabilities** for COP 33 billion, compared to December of the previous year. The previous year presented growth of 5 % in assets, 10 % in liabilities and 1 % in equity, respectively.



Asset growth originated from the increase in property, plant and equipment due to additions to construction in progress, mainly from the Hidroituango power plant and the increase in debtors.

EPM's **investments in infrastructure** amounted to COP 3 billion, which represents 58% of the Group's total investments:

Power Generation:

execution of the Ituango hydroelectric project, the Tepuy photovoltaic solar park, the modernization of the Guatapé stage III power plant and the Miraflores dam.

Energy Transmission and Distribution:

development of the expansion, modernization, replacement, energy loss control, service quality improvement plan, public lighting and the updating of remote terminals in transmission substations projects.

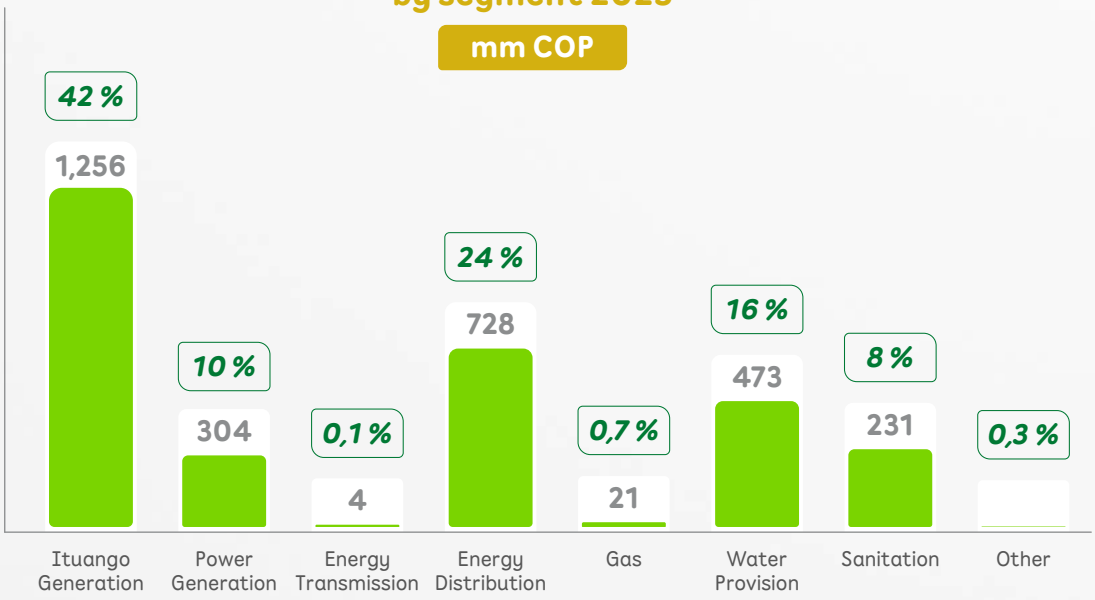
Gas:

management of biogas projects at the San Fernando plant, the expansion of networks in the Aburrá Valley and the construction of the bypass for primary infrastructure in the municipality of Copacabana.

Water Supply and Wastewater Management:

The company also executed the replacement of water and sewage networks, the Caldas-La Estrella interconnection, the Machado-Volador pipeline, the modernization of the Manantiales water treatment plant, and the expansion of the primary distribution capacity in the western sector of Medellín, among others.

Infrastructure investments by segment 2023



Financial **liabilities** expressed in Colombian pesos showed a slight reduction during 2023, a trend driven mainly by the 20.5% revaluation of the USD/COP exchange rate.

With respect to the **financing** arrangements **for the amounts required** for 2023, as well as for partially funding for 2024, the following are noteworthy: the signing of two long-term contracts, one with the French Development Agency (AFD) for USD 189.8 million to partially finance the investment plan and the other with Banco de Occidente for COP 200 million to cover general corporate uses.

Also, in November and December 2023, short-term credit agreements were signed with BNP Paribas for USD 200 million and Santander for USD 100 million to finance the Company's working capital.

On the other hand, the management of the exchange risk of financial liabilities, where EPM executed USD-COP swap financial derivatives operations on an underlying for USD 604 million, is worth mentioning. This minimizes the risk of USD exchange rate and interest rate (Term SOFR) associated to the cash flows of the club deal loan contracted with the international bank in 2022.

Risk Rating

EPM continues to timely inform credit rating agencies about the Organization's relevant facts, in order to transparently provide them with the necessary elements for their risk rating decisions.

Thus, **Fitch Ratings** maintained EPM's international scale rating at "BB+", in line with the ratings of the Republic of Colombia and the District of Medellín, and ratified the national scale rating at "AAA", both on negative watch. **Moody's** maintained its international investment grade rating at "Baa3" and changed the outlook from negative to stable.

Relations
with investors

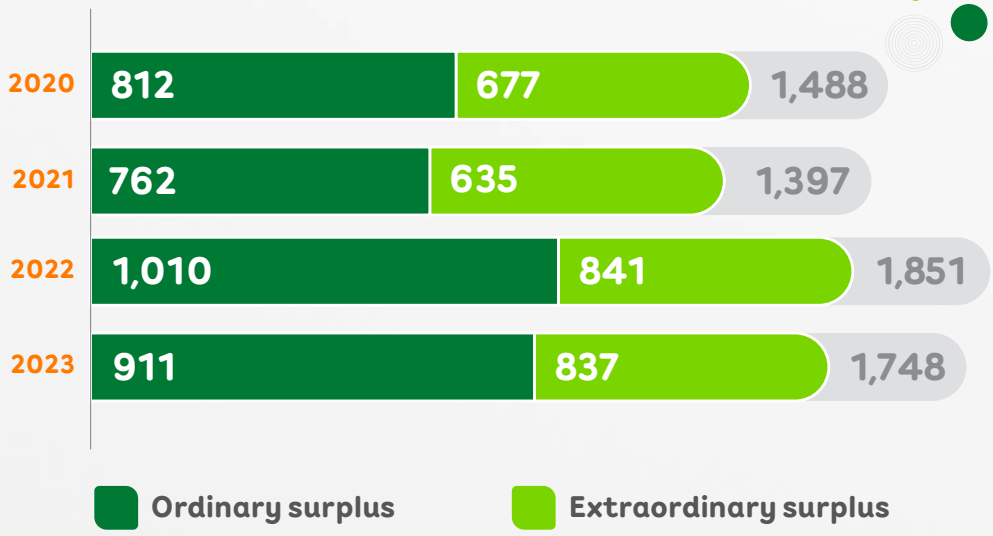
EPM maintained its transparency practices before the national and international financial markets, complying with the timely delivery of the Company's updated information. Some of the most representative practices in the relationship with this stakeholder group are the quarterly financial results teleconferences -four per year in Spanish and English-, the annual investor meeting, the web portal for investors -Spanish and English version- and the permanent attention to local and international investors through different channels.

In addition, the company once again obtained **IR *(Investor Relations)* recognition from the Colombian Stock Exchange,** thanks to the voluntary adoption of best practices in the area of disclosure and investor relations.

Transfers

to the District of Medellín

In 2023, **EPM delivered to the District of Medellín transfers for COP 1.7 billion,** COP 911 MM ordinary corresponding to 30% of the profits for the year 2022, and the remaining 25% equivalent to COP 837 MM to extraordinary transfers.

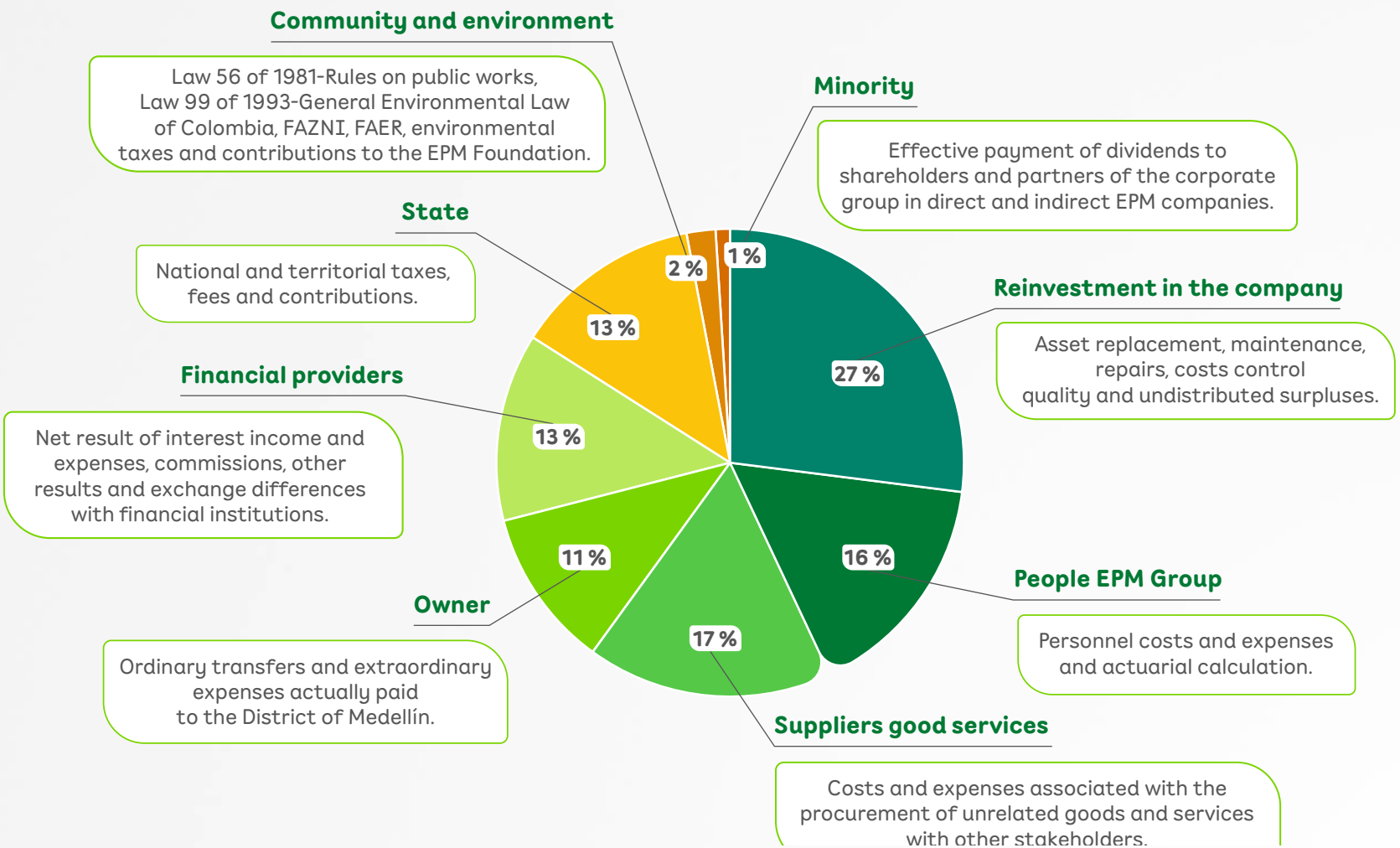


Distributed added value

The fourth financial statement is an added value that allows us to see the Company's results from the perspective of the value it adds and its distribution among the different stakeholders, such as the owner, employees, community and environment, state, suppliers, among others. During 2023, the **EPM** Group **generated added value for COP 16.3 billion, 3% more compared to the previous year,** which represents greater benefits for its stakeholders.

Of this item, the most significant concepts are Reinvestment in the Company with 27 %; Suppliers of goods and services with 17 %, mainly materialized in orders and contracts, insurance, commissions, fees and services; EPM Group People with 16 %, which is evidenced in salaries and benefits for employees; the State, the Community and the environment received together 15 %, destined to payment of taxes, contributions, fees

and environmental investments; financial providers with 13%, corresponding to financial expenses; and the District of Medellín with 11%, with resources for the development of the City and its inhabitants. All these figures contribute to the generation of employment and to the dynamization of the economy.



Vision for future Challenges

EPM's management will return to its essence, that is, to provide water, energy, and gas utilities with high quality standards by and for the people. Likewise, it will seek to implement innovative solutions to reach those users who are disconnected and diversify the Company's portfolio.

In this regard, the horizon proposes **six challenges** for the following years:

1. Quality of service

In order to be the **best utility company** and to be in the hearts of customers and users, it is essential to recognize the impact that **water, energy and gas** have on people's lives, since behind each service is a key factor in the quality of life of people, since behind every service there is someone who has a basic need, sometimes with a sense of urgency. To meet their expectations, the Company focuses on making investments in infrastructure, monitoring and meeting quality indicators, and generating and implementing innovative solutions.

2. Facilitating procedures for customers and users

EPM as a **customer-centric organization** must continue to implement digitalization, automation, digitalization initiatives, and simplification of procedures and documents to reduce wait times and requirements, as well as the consolidation and opening, if necessary, of customer service channels to meet customer requests more closely.

To achieve this, it is essential to always keep in mind the **premise of serving, serving and serving.** In EPM this must be felt, internalized and incorporated into all actions. Only in this way will it be possible to simplify and streamline solutions for all customers.

The vocation of service is inherent to EPM's collaborators; as public servants, and fulfilling it is a source of pride.

3. Hydrogen route

In the commitment to **seek solutions that diversify the energy mix of EPM** and its corporate group, and of Colombia, it is essential to continue working on renewable energy sources (NCRE) such as hydrogen.

To this end, **the hydrogen implementation route will be strengthened** through the viability of a business model where exports, domestic industrial market offerings, and sustainable mobility allow EPM to focus in being a national leader, contributing to the energy transition in a decisive manner.

4. Reaching disconnected communities with public utilities

Access to public water, gas and energy services contributes directly to the quality of life and sustainable human development of communities. EPM's role in This purpose is fundamental: to **provide access to those communities that, due to their location or environmental conditions, do not have services.**

To change this reality and increase its coverage, EPM must resort to different strategies ranging from investment in infrastructure to the establishment of public-private partnerships and the development of innovative solutions to reach these territories in unconventional ways.

5. Development promoter in the territories

EPM impacts the lives of all the inhabitants of the places where it is present through the operation of its businesses. For this reason, **it articulates with and in the territories as a promoter of development, going beyond the provision of public utilities** to contribute to their quality of life by generating employment, strengthening business fabrics, caring for the environment, and establishing agreements to be an actor that drives initiatives that leverage the sustainability of the communities.

In this sense, EPM as a public company is committed to work for the protection of public goods and the strengthening of common achievements aimed at sustainable human development.

6. Proximity as the cornerstone of our relationship with communities

Being there, as an integrated company with standardized messages, from the opening of listening and dialogue spaces with the people, allows EPM to know the needs of the communities and seek alternative solutions where the service and the sense of the public will take it to **be once again at the heart of its customers and users,** as that beloved organization that leverages the development of territories and the progress of the people.

Sirs. Empresas Públicas de Medellin E.S.P.
Medellín, Antioquia

AS-8626-24
October 18th, 2024

Independent Limited Assurance Report[1]

To the Management of Empresas Públicas de Medellin E.S.P.

1. Scope

We have been hired by Empresas Publicas de Medellin E.S.P (hereinafter "EPM" or "the Company"), to develop a limited assurance commitment, as defined by the International Assurance Engagement Standards (hereinafter "the Commitment"), on the identified sustainability information (the "Subject Matter") detailed in **Annex 1** and which is contained in the Management Report of Empresas Públicas de Medellin E.S.P. (hereinafter "EPM" or "The Company") for the period from January 1st, 2023 to December 31st, 2023 (the "Report").

2. Applied Criteria by Empresas Públicas de Medellin E.S.P.

In the preparation of the Subject Matter detailed in **Annex 1**, Empresas Públicas de Medellin E.S.P. applied its own criteria included in **Annex 2** of this Report (the Criteria). These own criteria were designed to complement the report with respect to the material matters identified by Empresas Públicas de Medellin E.S.P.; As a result, information on the subject matter may not be suitable for another purpose.

3. Empresas Públicas de Medellin E.S.P. Responsabilities

Empresas Públicas de Medellin E.S.P.'s management is responsible for selecting the Criteria and presenting the Subject Matter in accordance with the Criteria, in all material aspects. This responsibility includes establishing and maintaining internal controls, proper record keeping, and making estimates that are relevant to the preparation of the Subject Matter, so that it is free from material misstatement, whether due to fraud or error.

4. EY's Responsibilities

Our responsibility to express a conclusion on the submission of the Subject Matter based on the evidence we have obtained.

"Free Translation"

[1] Free translation

Ernst & Young Audit S.A.S.
Bogotá D.C.
Carrera 11 No 98 - 07
Edificio Pijao Green Office
Tercer Piso
Tel. +57 (601) 484 7000

Ernst & Young Audit S.A.S.
Medellín – Antioquia
Carrera 43A No. 3 Sur-130
Edificio Milla de Oro
Torre 1 – Piso 14
Tel: +57 (604) 369 8400

Ernst & Young Audit S.A.S.
Cali – Valle del Cauca
Avenida 4 Norte No. 6N – 61
Edificio Siglo XXI
Oficina 502
Tel: +57 (602) 485 6280

Ernst & Young Audit S.A.S.
Barranquilla - Atlántico
Calle 77B No 59 – 61
Edificio Centro Empresarial
Las Américas II Oficina 311
Tel: +57 (605) 385 2201

A member firm of Ernst & Young Global Limited

We conducted our engagement We have carried out our commitment in accordance with International Standards on Assurance Engagements other than Auditing or Reviewing Historical Information (ISAE 3000) and the contractual terms and conditions for this engagement agreed with Empresas Públicas de Medellin E.S.P on July 2nd, 2023. Those standards require that we plan and perform our engagement to express a conclusion on us to plan and carry out our commitment to express a conclusion as to whether we are aware of any material modifications that need to be made to the Subject Matter in order for it to be in to bring it into accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, extent, and timeliness of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error.

We believe that the evidence obtained is sufficient and appropriate to serve as the basis for our conclusions of limited assurance.

5. Our Independence in Quality Management

We have maintained our independence and confirm that we have met the requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants and have the required competencies and experience to conduct this assurance engagement.

EY also applies International Quality Management Standard 1, *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services engagements*, which requires us to design, implement and operate a quality management system that includes policies or procedures related to compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

6. Performed Procedures Description

Procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

Free translation

Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.
A limited assurance engagement consists of making enquiries, primarily of persons responsible for the preparation of the Subject Matter detailed in **Annex 1** and related information and applying analytical and other appropriate procedures.

Our limited assurance procedures included:

a. Conduct interviews with Company personnel to understand the business and the Report preparation process.

b. Conduct interviews with those responsible for the Report to understand the process of gathering, consolidating and presenting the information on the Subject Matter.

c. Verify that the calculation criteria have been correctly applied in accordance with the methodologies described in the criteria.

d. Carry out analytical review procedures to support the data.

e. Identify and verify assumptions supporting the calculations.

f. Test, on a sample basis, source information to verify the accuracy of data.

We have also executed other procedures that we have considered necessary under the circumstances.

"Free Translation"

7. Limitations of Our Assurance Commitment

Our assurance commitment was limited to the Subject Matter included in **Appendix 1** contained in the Report for the period from January 1st to December 31st, 2023, it does not include information from previous years included in the Report, nor related to future projections or goals.

Neither attempt to determine whether the technological tools used for the development of the Report are the most appropriate and/or efficient.

8. Conclusion

Based on our procedures and the evidence obtained, we are not aware of any material modifications that should be made to the information in the Integrated Management Report (Report) detailed in Annex 1, for the period from January 1st to December 31st, 2023, in order for it to be in accordance with the Criteria detailed in Annex2.

.

Cordially

Patricia Mendoza
Partner/Principal
TP 78856-T
Ernst & Young Audit S.A.S.

"Free Translation"

Building a better working world

ANNEX 1

Subject Matter

The Management information identified in the indicators included in the printed Report and included by Empresas Publicas de Medellín E.S.P. on its website[2] is presented in the following table:

Criteria	Indicator/Content	Insured Value
Material theme: Quality and safety of products and services		
Own	EPM-03 Loss Index - Water Supply Losses - IPUF	6.34 m³ was the level of water losses with the end of December 2023 (Page 19)
Material theme: Access and Buyability		
Own	EPM-17 Universalization of the service	Universalization of water supply-aqueduct: universalization of service in the metropolitan area of the Aburrá Valley and in the East of the department of Antioquia -Rionegro and El Retiro 98.13% (Page 18) Universalization of wastewater management service: universalization of service in the metropolitan area of the Aburrá Valley and in the East of the department of Antioquia -Rionegro and El Retiro 96.27% (Page 20) Universalization of Energy Service: 97.2% universalization of service in Antioquia (Page 41)

[2]The maintenance and integrity of **the Company's website** ([EPM Group Sustainability Reports (grupo-epm.com)]), repository of the Report, is the responsibility of the Administration of Public Companies of Medellín E.S.P. The work carried out by EY does not include consideration of these activities and, therefore, EY accepts no responsibility for any difference between the information presented on such website and the **Subject Matter** contained in the Report on which the Commitment was made and the conclusion was issued.

Other than as described in the table, which sets out the scope of our work, we do not apply assurance procedures on the remaining information included in the Report and, accordingly, we do not express a conclusion on that information.

"Free Translation"

		Universalization of Gas Service: Universalization of the Service in Antioquia 86.6% (Page 44)
Own	GRI 203-2 Indirect Economic Impacts – Literal a	1. Prepaid Energy: 13,597 loyal customers during 2023 (Page 42) 2. Connections for the Life of Water: 5,029 homes connected to aqueduct and/or sewerage through the Connections for Life program, in conjunction with the Mayor's Office of Medellín (Page 19) 3. Closing gaps – Wastewater: 278 homes located in areas of difficult management linked to the sewerage service (Page 21)
Material theme: Water and Biodiversity		
Own	GRI 304-3 Protected Hectares – Literal a	8,491 hectares restored and reforested in 2023 (p. 92). The protection of water resources in the basins of the Aburra Valley, La Fe and Riogrande II systems (p.21).

"Free Translation"

A member firm of Ernst & Young Global Limited

Building a better working world

ANNEX 2

Criteria for own indicators

The following are the assurance criteria that are applicable to the own indicators, objects of limited assurance, which are listed in the GRI content index of the **Report** on Public Companies of Medellín E.S. P and this Report in order to make them available to stakeholders.

These evaluation criteria form an integral part of our independent accountant's limited assurance report.

Indicator	Criteria
EPM-03 Loss Ratio Water Supply Losses - IPUF	Purpose of the indicator: to monitor drinking water losses with respect to the number of aqueduct users billed in the service provision area. Based on the variables: 1. Supply that corresponds to the water delivered to the system in a given period of time. 2. Billing that corresponds to the water consumed and billed to users in that same period of time. 3. Average number of Billed Users for the evaluated period, the Loss Index per Billed User - IPUF is calculated in m3/user/month. The calculation is made based on the formula described in Resolution CRA 688 of 2014. (https://normas.cra.gov.co/gestor/docs/resolucion_cra_0688_2014.htm)This indicator is always calculated for a period of 12 months (cumulative data for 12 months) to the month of evaluation (the last of the twelve months). **Interpretation of the results of the indicator**: the lower the value of the indicator, the lower the water losses and therefore the greater the efficiency of the system. Resolution CRA 688 of 2014 establishes an efficiency standard for the indicator of 6.0

"Free Translation"

	m3/user/month for systems with more than 5,000 subscribers (billed users). **Calculation formula:** IPUF=(m3/suscriptor/mes)
EPM-17 Universalization of the service	The indicator measures the number of customers with active services (enjoying the service) with respect to the total number of customers. The Indicator is calculated for water, gas, energy and waste services. <u>Variables definition</u>: • Customers Enjoying the Service (CDS): Number of customers and users who already have the respective service. • Customer Universe (U): Customers Enjoying Service plus Existing Homes Without Service. <u>Calculation formula</u>: Universalization = Customers enjoying the service (CDS)/Universe of Customers (U)
GRI 203-2 Significant Indirect Economic Impacts – Literal a	EPM reports for the management report letter a, which, according to the GRI standard, establishes that it must describe the examples of significant indirect economic impacts (positive and negative) identified by the organization. For the report of paragraph a, the following programs identified by EPM that are part of the significant indirect economic impacts will be incorporated: • Connections for Life Water Program • Pay to your needs • Prepaid energy • Connected Homes

"Free Translation"

A member firm of Ernst & Young Global Limited

	The indicator is based on the literal a published by the GRI (https://globalreporting.org/pdf.ashx?id=14116&page=9)
GRI 304-3 Protected or Restored Habitats – Literal a	EPM reports for the management report letter a, which, according to the GRI standard, establishes that it must report the size and location of the protected or restored areas of the habitats, and whether the success of the restoration measure was or is approved by independent external professionals. For the report of paragraph a, EPM considers the total sum of the areas that are being protected and/or restored through the initiatives designed by EPM, which are: • **Forest Conservation:** Contribution to the Establishment of Public and Private Protected Areas • **Restoration and reforestation:** Forestry development program: delivery of plant material for planting carried out by public and private actors, reforestation, and reforestation. The area in hectares is estimated according to the planting density and arrangements for restoration and reforestation. • **Sustainable practices and use:** Contribution to water protection (areas where supply basins are located) with good agri-environmental practices such as silvopastoral systems, agroforestry, fences and living barriers, isolated trees, erosion control, rural basic sanitation systems. (Impacted area proportional to the activities carried out in each property, technical criterion). The area in hectares is estimated considering the technical criteria and the activities carried out in each property. • **Compensation and new protection areas:** Some forest compensations for the development of projects, purchase of land for compensation and protection, new areas for reservoir protection. The indicator is based on the literal a published by the GRI (https://globalreporting.org/pdf.ashx?id=14116&page=9)

"Free Translation"

A member firm of Ernst & Young Global Limited

‹ Back to content

Sustainability Report 2023

Corporate Governance Report

Grupo·epm

Table of contents

p.

Corporate Governance Report

- **1. Reporting** 189
  - 1.1. Grupo EPM Corporate Governance Code 193
- **2. EPM ownership structure** 197
  - 2.1. Transfers to the District of Medellín 200
  - 2.2. Master Relations Agreement EPM - District of Medellín 202
  - 2.3. Public rendering of accounts 203
- **3. EPM's management structure** 206
  - 3.1. Critical concerns GRI 2-16 207
  - 3.2. Board of Directors EPM 213
  - 3.3. Composition of the Board of Directors 214
  - 3.4. EPM Senior Management 239
- **4. Related party transactions** 261
  - 4.1. Conflicts of interest 263
  - 4.2. Governance Agreement 265
- **5. Ownership structure of Grupo EPM** 281
  - 5.1. Grupo EPM's capital and ownership structure 283
- **6. Management structure of Grupo EPM** 291
  - 6.1. Boards of Directors of Grupo EPM 292
  - 6.2. Managers of the companies of Grupo EPM 314
  - 6.3. Grupo EPM Executive Meeting 316
  - 6.4. Managerial performance assessment of managers/presidents of Grupo EPM 317
  - 6.5. Strengthening plan 320
  - 6.6. Remuneration of Grupo EPM's management team in Colombia 320

Table of contents

p.

- **7. Corporate Governance Measurements** 322
  - 7.1. Country Code 323
  - 7.2. Business transparency 324
  - 7.3. Investor Relations (IR) Acknowledgment 325
  - 7.4. Credit risk rating 325
  - 7.5. Corporate Governance Indicators 326
- **8. Investor relations** 327
  - 8.1. Relevant information 328
  - 8.2. Loan operations 330
- **9. Corporate Governance Planning** 331
  - 9.1. Follow-up on Corporate Governance Plan 2023 332
  - 9.2. Corporate Governance Plan 2024 - 2027 336
  - 9.3. Corporate Governance Unit Operating Plan 2023 339
- **10. Accountability** 340
  - 10.1. Ethical management of Grupo EPM 341
  - 10.2. Ethical management at EPM 343
  - 10.3. Grupo EPM control environment 346
  - 10.4. Corporate Audit Management 347
  - 10.5. External Audit Plan 349
  - 10.6. External control, supervision and oversight entities 350
  - 10.7. Comprehensive risk management 351
  - 10.8. Integrated Planning and Management Model - MIPG 351
  - 10.9. Compliance 357
- **11. Schedules** 358
  - 11.1. Schedule 1 359
  - 11.2. Schedule 2 360
  - 11.3. Schedule 3 368
  - 11.4. Schedule 4 377

‹ Back to content

Sustainability Report 2023

1. Reporting

Grupo·epm

1. Reporting

Pursuant to the provisions of paragraph f of EPM's Bylaws, contained in Agreement 12 of 1998, in section 8.5.6 of Article 8 of the Board of Directors Regulations and in Article 45 et seq of Law 222 of 1995, the Board of Directors is responsible for approving the management report and the corporate governance report.

On the other hand, according to the provisions of Article 45 of Law 222 of 1995, such approval is given on the understanding that it does not imply approval or exoneration from liability:

> *"**Article 45. Rendering of accounts.** The directors shall submit audited accounts of their management at the end of each fiscal year, within one month following the date on which they leave office and when required to do so by the competent body. For such purpose, they shall submit the pertinent financial statements, together with a management report.*
>
> *The approval of the accounts shall not release the directors, legal representatives, public accountants, employees, advisors or statutory auditors from liability."*

Grupo EPM understands **corporate governance** as the system through which companies are led, managed and controlled with a balance between ownership and administration, in order to guarantee their sustainability and growth, the rights of their investors, transparency and ethics in their performance and access to information for stakeholders.

The **"General Corporate Governance Framework"** of Grupo EPM seeks to generate a system of checks and balances, from the balance in the performance of governing bodies (owner, board of directors and general manager), as well as a responsible exercise of ownership in the companies comprising Grupo EPM, so as to enable the achievement of unity of purpose and direction, obtain synergies, generate value for stakeholders and contribute to sustainability.

An example of the strategic relevance that corporate governance has for EPM and its business group is the fact that it is considered as one of the objectives of the Balanced Scorecard - BSC: "to strengthen institutional soundness through corporate governance", which mandate is to manage corporate governance through actions that allow institutional strengthening and contribute to the unity of purpose and direction of Grupo EPM.

Likewise, stakeholders gave a clear and strong signal of the importance of corporate governance for them in the update of the materiality exercise for the 2022-2025 period, where they identified it as one of the 11 material topics.

In order to incorporate the best national and international practices in corporate governance, to maintain a permanent evolution in this area and to adapt to the new dynamics and challenges of an increasingly complex and volatile environment, EPM revised its governance model. Under this premise, and as part of the commitments voluntarily assumed by the Company in corporate governance, some milestones for **2023 are highlighted**:

- Definition of the elements of "Grupo EPM's Governance System", with the purpose of clarifying the Group's performance and strengthening the relationship mechanisms among the companies comprising it.
  See | Governance system
- Establishment of two new indicators aimed at strengthening institutional soundness, transparency and disclosure of information for stakeholders.
- Progress in closing gaps for the adoption of the TCFD- *Task Force on Climate-related Financial Disclosures* and SASB- *Sustainability Accounting Standards Board*, both for the disclosure of non-financial information. This report develops the TCFD Governance component, including the management and oversight by the Governing Bodies of the risks and opportunities associated with climate change.
- Focus on and management of material topic "Corporate Governance",
  See | Corporate governance material topic
- Between November and December 2023, in response to the change of owner's representative, a detailed transition process was conducted between the EPM commission and the commission appointed by the mayor-designate for the 2024-2027 period, addressing key information on corporate governance for the 2020-2023 period.

- Execution of 100% of the actions planned for 2023 of the medium and long-term corporate governance plan.

This report provides a description of compliance with the main corporate governance practices adopted at Grupo EPM, as well as the progress, material facts and relevant changes during 2023. This report is prepared in accordance with the recommendations of the Code of Best Corporate Practices-Country Code and the Global Reporting Initiative (GRI). In order to comply with the recommendations of the TCFD guide, the following codes are used in the contents that meet this standard:

- **TCFD GB-01** Description of the board's oversight of climate-related risks and opportunities.
- **TCFD GB-02** Description of Senior Management's role in assessing and managing climate-related risks and opportunities.

The Report was submitted to the Board of Directors of EPM with the other year-end documents, after review and favorable report from the Audit and Risk Committee, **Country Code 33.1, GRI 2-14**.

Its publication is a sign of EPM's ongoing commitment to transparency and disclosure of information to its stakeholders. **Country Code 33.2, 33.3**

The last 4 years put EPM's corporate governance and its organizational soundness to the test, and evidenced the difficulties that may arise when the mayor, as representative of the owner, acts outside the frameworks set forth in the Master Relations Agreement signed between the then Municipality, now District, of Medellín and EPM, which establishes the principles that govern the owner-company relationship, the obligations of both parties and reflects the common objective of the two entities to generate business management conditions in EPM that generate value for its stakeholders, so that EPM becomes a growing and sustainable source of income for Medellín. The provisions of this agreement are a clear demonstration that corporate governance is a key factor for competitiveness and corporate sustainability, as it seeks to guarantee technical management with a long-term vision and to enable the necessary investments for the efficient, quality and coverage of public utilities.

The Board of Directors appointed in January 2024 is fully aware of the importance of Corporate Governance, of the direct connection that exists between it and the sustainability of the company, as well as with the provision of services with efficiency, quality and coverage and with the generation of trust in all stakeholders. Consequently, it expresses its commitment to comply with, promote and strengthen EPM's Corporate Governance, in order to avoid the recurrence of situations such as those occurring during the last 4 years.

1.1. Grupo EPM Corporate Governance Code

During 2023, the Corporate Governance Code was modified to include diversity, gender equity and inclusion criteria in the composition of the Board of Directors, and in response to the recommendations of the Colombian Stock Exchange (BVC) regarding the Bondholders' Meeting (specifically the rules regarding its powers, internal regulations and agenda for its development), an update to the Code was approved in this regard, thus promoting better disclosure and investor relations practices.

The **Corporate Governance Code** compiles and discloses the corporate governance practices that are defined and implemented at EPM, and are adopted by the subsidiaries of the corporate group according to their internal procedures, adapting them to the standards and particularities applicable to each company.

The **corporate governance practices** that EPM has in place and that comprise the documentation structure of Grupo EPM's Corporate Governance Code are as follows:

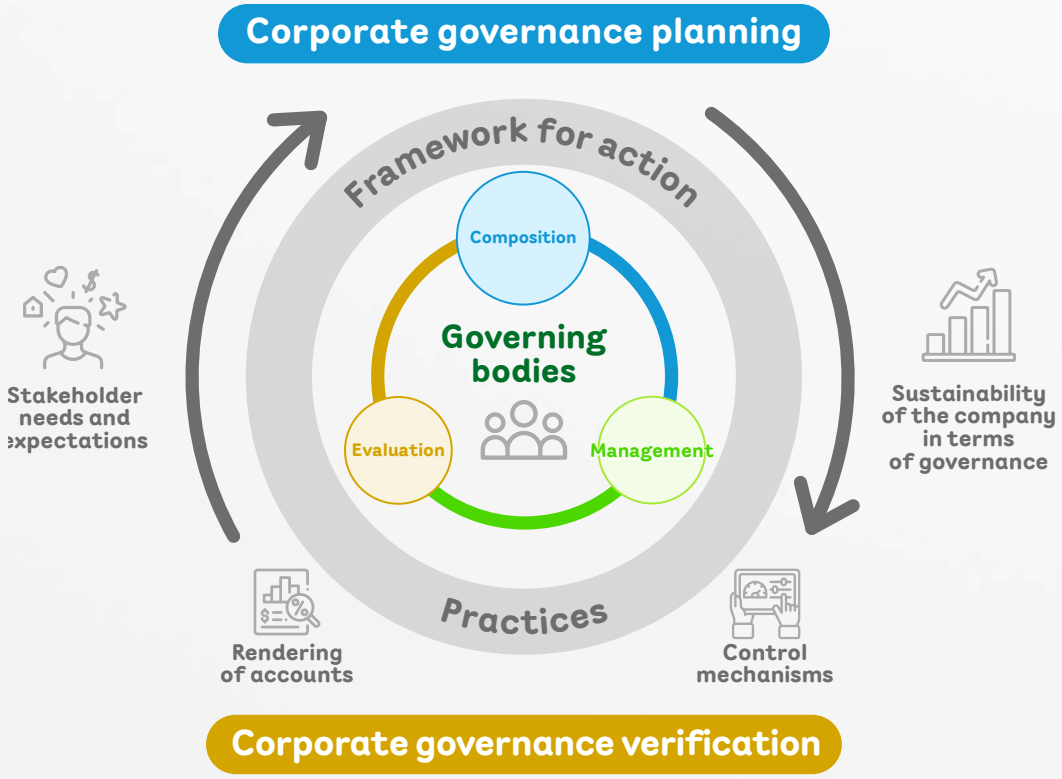
- **Bylaws and amendments thereto:** Municipal Agreement of the Council of Medellín No. 12 of 1998 and Municipal Agreement No. 32 of 2006, whereby EPM's bylaws are added to comply with the objectives set forth in Law 964 of 2005, regarding the creation of the Audit Committee.

- **Corporate Governance Code:** adopted by Decree No. 472 dated September 24, 2019 and updated in 2023 by Decree 743 dated August 2, 2023, "Whereby paragraph 3. M*anagement - Board of Directors of EPM, is amended*" and Decree 751 dated September 6, 2023, "Whereby paragraph 10. *Investor Relations, is amended*".

  This document compiles and discloses the Corporate Governance practices defined and implemented at EPM.

- **Group's General Corporate Governance Framework:** adopted on September 24, 2019. It is the set of elements that interact to strengthen corporate governance, promoting unity of purpose and direction through the implementation of a model aligned with the strategic guidance defined for the business group.

- This framework defines the scope of action of the ownership, management or administration of the companies of Grupo EPM, to implement the necessary practices to strengthen these governance bodies, verify their degree of compliance and disclose the results to their stakeholders.



Additionally, in support of the General Corporate Governance Framework, there is the **Corporate Governance Plan 2024-2027**, which consolidates the initiatives to maintain the evolution of corporate governance at Grupo EPM.

- **Master Relations Agreement:** this document, which was signed on April 23, 2007, expresses the general conditions that frame the "owner-company" relations between the District of Medellín - public entity owning 100% of capital - and EPM - and defines the principles that must govern them and the specific obligations in which their effective balance is reflected.

- **Internal Regulations of the Board of Directors:** amended by Decree 645 dated April 26, 2022. It establishes the rules of operation of the collegiate body, with a view to achieving greater efficiency and effectiveness, and that decision-making is carried out in an objective and responsible manner.

- **Manual of conflicts of interest and treatment of decisions in the interest of the Group:** amended by Decree 675 dated September 22, 2022. It provides the necessary information and procedures that allow Grupo EPM's managers and employees to know, prevent and adequately and timely manage conflicts of interest that may arise in the performance of their duties.

- **Bylaws of the Board of Directors' committees:** the Board of Directors has 6 support committees, as follows: Audit and Risk, Management and Corporate Governance, Sustainability, Strategy and Investments, Project Monitoring, Legal and IT, Cybersecurity and Innovation; each has its own regulations, which define the standards, procedures that regulate the operation and rules of conduct of its members.

  During 2023, the Regulations of the Sustainability, Strategy and Investment Committee were amended and the Regulations of the IT and Cybersecurity Committee were created.

  See | | Topic Board Committee Changes

- **Governance agreement:** signed on November 8, 2013 between the Colombian companies of Grupo EPM, and later by the international subsidiaries. This agreement formalized and put into operation

Grupo EPM's relationship model and structure to facilitate the achievement of business objectives and synergies.

- **Regulations for Management support or strategic committees:** updated by Decree 2416 dated June 28, 2023, which defines and updates the Governance Committees and Mandatory Committees in EPM.
- **Information disclosure policy:** whereby EPM informs investors and the market in general of the relevant facts of the Company and its Business Group, and promotes access to timely, true, sufficient, complete and easily understandable information on its financial and non-financial position, in order to provide equitable treatment, generate relationships of trust and facilitate decision-making.

Compliance with the Code

Section "9.2 Annual Corporate Governance Report of Grupo EPM" establishes, among others, that EPM shall issue a report which, in addition to disclosing data related to the content of the Code, shall indicate the degree of compliance.

The degree of compliance with the Corporate Governance Code is published on EPM's website, and can be consulted Here.

‹ Back to content

Sustainability Report 2023

2. EPM ownership structure

Grupo·epm

2. EPM ownership structure

EPM is an official residential public utilities company, with administrative and financial autonomy, established as a District Industrial and Commercial State-Owned Company, subject to the legal regime governing the provision of residential public utilities, established in Law 142 of 1994.

The **District of Medellín** is the sole owner of EPM. GRI 2-09

The relationship with the District of Medellín, in its capacity as owner, which is based on respect for the autonomy granted by administrative decentralization and internal regulations, is regulated by the Constitution, the law and the Master Relations Agreement signed in 2007 between the Mayor's Office of Medellín and EPM. The powers of the Council of Medellín in relation to EPM are defined in the Company's bylaws and the Colombian law.

The Mayor of the District of Medellín, in his capacity as representative of the owner, exercises ownership exclusively through the Board of Directors of EPM, in his role as chairman thereof, by virtue of the provisions of the Master Relations Agreement, and therefore does not exercise executive functions or other positions in the Company. By law and the Company's bylaws, the mayor of Medellín appoints the general manager, and designates the other members of the Board of Directors and the corporate auditor. GRI 2-11

On October 29, 2023, regional elections were held in Colombia, and Mr. Federico Gutiérrez was elected mayor of Medellín. As EPM is a decentralized company of the District of Medellín, and as part of its commitment to transparency and public rendering of accounts to stakeholders, it participates every 4 years in the transition process with the new district administration, to provide information on the Company's management and fundamental aspects for its sustainability and strategic continuity.

Between November and December 2023, the transition processs between EPM and the commission appointed by the mayor-elect and led by John Alberto Maya, general manager appointed as of January 1, 2024, took place.

During 11 days, EPM delivered the information corresponding to the business management, detailing the state of the Company at the end of 2019, the main achievements and milestones of the four-year period 2020 - 2023, the challenges for the coming years, and the challenges for the first 100 days of the new district administration of Medellin.

Likewise, the presentations and support material used during the sessions were delivered, requests for information were addressed and the management reports for the four-year period 2020 - 2023 of the Board of Directors and the general manager, the latter covering Grupo EPM.

Detailed information on the transition process between the 2020-2023 and 2024-2027 administrations can be found at the following link: *Here.*

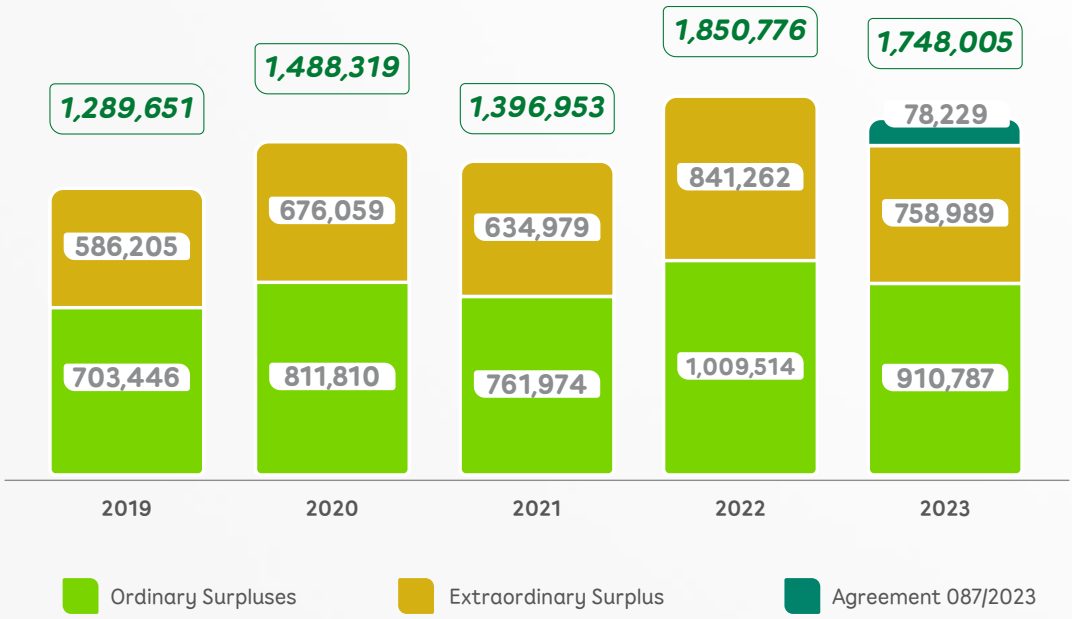
2.1. Transfers to the District of Medellín

Municipal Agreement No. 69 of 1997 of the Council of Medellín establishes that EPM must transfer annually, on an ordinary basis, a percentage not exceeding 30% of the financial surpluses. However, the Master Relations Agreement allows for additional transfers to be decreed, considering both the District's financial requirements for specific investment programs, as well as EPM's financial sustainability. In recent years, additional transfers have been established at 25% of the net income of the previous year, and are approved by the Council of Medellín as part of the sources of financing when approving the Development Plan at the beginning of each administration.

In 2023, EPM delivered to the District of Medellín transfers equivalent to COP 1,748,005 million, *of which COP 910,787 million were ordinary transfers, corresponding to 30 % of 2022 profits, and COP 837,218 million were extraordinary transfers, corresponding to 28 % of profits.*

The following graph shows the **transfers for the last five years:**

Transfers to the District of Medellín



Note

Extraordinary transfers for period 2020 - 2023, corresponding to 25% of the net income of the previous year, were approved by the Council of Medellín within the sources of financing when approving the Development Plan for the Municipality of Medellín, in this case Agreement 2 of 2020 "Whereby the Development Plan of Medellín - Medellín Futuro 2020 - 2023 is adopted".

Additional transfers for COP 78,229 million in 2023 are given, as provided by the Council of Medellín in Municipal Agreement No. 087 dated November 15, 2023, which orders that the sum of SEVENTY-EIGHT BILLION, TWO HUNDRED AND TWENTY-NINE MILLION, ONE HUNDRED AND THIRTY THOUSAND, FIVE HUNDRED AND SIXTEEN PESOS ($78,229,130,516), arising from Financial Surpluses generated in 2022 by EPM, be added to the general budget of the Special District of Science, Technology and Innovation of Medellín. These surpluses from the net profits generated in 2022 will be transferred only once and will be used exclusively to finance projects of the Medellín Futuro Development Plan, included in the Annual Operating Investment Plan (POAI) for 2023.

Ordinary and extraordinary transfers between 2019-2023 delivered to the District of Medellín amounted to COP 7,773,704 million (COP 4.197532 for ordinary transfers and COP 3.576172 for extraordinary transfers).

2.2. Master Relations Agreement EPM - District of Medellín

The Master Relations Agreement signed between EPM and the District of Medellín in 2007, establishes the principles that govern the owner-company relation and the obligations of both parties, through self-regulations that delimit the exercise of ownership and business management; it also reflects the common objective of the two entities to generate business management conditions at EPM, which provide value to its stakeholders, such that EPM is consolidated as a growing and sustainable source of income for Medellín.

These principles and obligations go beyond the legal conditions that both entities must comply with, generating a system of checks and balances that establishes responsibilities and self-limitations for each of the parties.

The provisions of this agreement are a clear demonstration that corporate governance is a key factor for competitiveness and corporate sustainability, which contributes to an adequate balance in the exercise of ownership, direction and management, to guarantee technical management with a long-term vision, and to enable the necessary investments for the provision of public utilities with quality and coverage.

See Schedule 1 | Background on the Master Relations Agreement

Self-assessment of compliance with the obligations established in the Master Agreement

The last four years put EPM's corporate governance and its organizational soundness to the test and evidenced the difficulties that can arise when the mayor, as representative of the owner, acts outside the frameworks set forth by the Master Relations Agreement signed between the then Municipality, now District, of Medellín and EPM. This was evidenced in situations such as: the appointment of officials from the district administration as is the case of the appointment in EPM of María Camila Villamizar, who served as Private Secretary of the District of Medellín, and the appointment in EMVARIAS of Carlos Borja, who served

as Undersecretary of Construction and Maintenance in the Secretariat of Physical Infrastructure of the District of Medellín; representation of the Mayor of Medellín outside his role as Chairman of the Board of Directors, which limits such representation to specific issues related to the Board of Directors, and as established by the regulatory framework of relevant information of the Financial Superintendence of Colombia; direct communication with vice presidents of EPM that go against the regular conduit established in the Master Relations Agreement (Mayor, Board of Directors, Manager); direct instructions given by the Mayor to EMVARIAS officials; among others.

The foregoing is notwithstanding the provisions of the Master Relations Agreement, which states that its enforceability and compliance shall be subject to the conviction of the parties in relation to the principles that inspire it and the convenience of the provisions contained therein as effective corporate governance practices.

2.3.Public rendering of accounts

As a practice of transparency and openness of information and in compliance with constitutional and legal provisions, EPM annually performs its public rendering of accounts, to disclose the main achievements and challenges of corporate management and its articulation with stakeholders.

The central event of public rendering of accounts with citizens was held on Thursday, May 11, 2023 at 10:00 a.m., at the UVA of La Armonía, with live broadcast by Telemedellín, Teleantioquia and EPM social networks.

The most relevant facts of EPM and Grupo EPM for the period 2022 were disclosed in this Public Rendering of Accounts.

After the event, a press release was sent to all the media and the General Manager gave a press conference at 11:30 am.

Main issues addressed:

- Strategic Guidance.
- Grupo EPM business: universalization, investment.
- Programs, projects and initiatives by business.
- Progress on Ituango Hydroelectric Power Plant.
- Progress on Tepuy solar photovoltaic project.
- Circular economy.
- Integral management of water resources and biodiversity.
- MIT (territorial integration model)

- Climate change.
- Innovation management.
- Grupo EPM suppliers, employment generation and local hiring.
- Diversity, inclusion and gender equality.
- Customer-oriented organization.
- EPM Christmas Lighting
- Programs and projects of Fundación EPM.
- EPM and Grupo EPM financial performance.

As deliverables of the Public Rendering of Accounts, a digital report of EPM's management, a digital report of Grupo EPM's management, as well as a physical summary booklet with the main milestones of Grupo EPM's management, were made available to stakeholders.

All the information on Public Rendering of Accounts can be found at this link: *Here.*

Back to content

Sustainability Report

2023

3. EPM's management structure

Grupo·epm

3. EPM's management structure

3.1. Critical concerns

GRI 2-16

For the purposes of this report, a critical concern is understood as an event that challenged the governing bodies in their management and had a reputational impact.

In 2023, the **main critical concerns** were:

1. El Niño Phenomenon

In 2023, the country had to face the El Niño phenomenon, a climate variability event that has had repercussions and economic impacts, mainly in the energy and water and sanitation businesses.

For this reason, EPM has been following up in detail, identifying strategies to minimize and face the possible impacts of the El Niño phenomenon, assessing weather forecasts and rainfall levels, the behavior and storage of reservoirs, the vulnerability of systems or minor water sources not interconnected to the general system, the possible risks in water quality, and in the construction of the mitigation plan for customers with environmental and social actions, for the responsible consumption of public utilities.

For several years, the Organization has been preparing for this phenomenon with technical maneuvers, planning, investments in infrastructure, new projects and community education. These actions have made it possible to continue providing water and energy services with quality and continuity. Energy and water security are the pillars of the strategies and investments that are being developed so that the systems are increasingly less vulnerable, contribute to the country's development and the well-being of the community, and respond effectively to climate variability phenomena.

2. Electricity tariff option

In May 2023, EPM's Board of Directors authorized the Company's management to apply the stabilization of electric energy service tariffs until December 31, 2023, through a tariff option, a mechanism allowed by the regulations in force in the country.

This measure benefited more than 7 million Colombians in the municipalities of the department of Antioquia and the municipality of El Carmen de Atrato (Chocó), benefiting the country's production chain.

The tariff environment changed and new regulatory signs were issued by the Energy and Gas Regulation Commission (CREG) in September, with Resolution 701 023 of 2023; the foregoing, together with a period of high prices in the energy market due to the El Niño phenomenon, led to EPM management's decisions resulting in increases, for October and November 2023, so as not to continue increasing the balance of the tariff option.

On December 7, 2023, the CREG published resolutions 101 028 and 101 029, which provide new signs to start recovering the accumulated balance of the tariff option, with EPM abiding by the figure of Resolution CREG 101 028 of 2023, and therefore starting to recover the balance as of the publication of January 2024.

3. UNE Telecomunicaciones S.A.

In 2023, EPM continued to explore options that would allow it to manage the risks of its investment in UNE and also guarantee the continuity of service, protect public assets and protect employees and users of telecommunications services (households and businesses).

The Board of Directors of EPM, with the fundamental purpose of protecting public assets, decided to capitalize UNE EPM Telecomunicaciones for up to COP 300,000 million.

The capitalization was carried out under the following conditions agreed with Millicom, the majority shareholder:

1. The capitalization must be made with a share value at market value (going concern acknowledgment).
2. The return of resources could be made, among others, through one of the following new mechanisms agreed upon:
   a) UNE's repurchase of the issued shares.
   b) EPM will exercise Millicom's mandatory call option at a share value agreed between the parties.
3. Extend the public asset protection clause until December 2026.
4. Payment method, 50% in October 2023, and 50% in December 2023.

The Board of Directors continued to monitor the company's performance and to follow up on UNE's strategic projects that support the business plan submitted for capitalization.

4. Afinia

During the year, the owner's focus on Afinia's management issues led to meetings of Afinia's Integral Consolidation Plan (PICA), with emphasis on the value levers: loss recovery, investments, collections and quality. In addition, these meetings were intended to enable the transfer of best practices within the framework of the unity of purpose and direction of the business group.

Additionally, and based on the authorization given by EPM's Board of Directors in 2022, EPM (as lender) and Afinia (as borrower) signed an intercompany loan agreement for COP 450,000 million, with a term of five years, for the subsidiary's investment plan for 2023.

In order to give continuity to Afinia's business plan, during 2023 the Board of Directors of EPM made the following approvals:

- Capitalization of up to COP 350,000 million in September 2023.
- Capitalization of up to COP 250,000 million in December 2023.

5. Hidroituango Power Plant

During 2023, the efforts and commitment to start operations of units 3 and 4 continued, and the insurance scheme was strengthened by taking out policies that cover All Risks Property Damage and Loss of Profit for the Hidroituango Power Plant, as well as Tort Liability, Sabotage and Terrorism and All Risks in Construction and Assembly for the second stage of the project; maintaining Self-Insurance for COP 102 billion, which must be adjusted to the new realities of the insurance scheme.

On October 31, the plant began commercial power generation from turbines 3 and 4. Thus, the National Interconnected System (SIN) operated by XM already has 1,200 MW of generation as part of the energy supply in Colombia.

On the other hand, on December 20, EPM gave the order to start the final civil works for the commercial operation of generation units 5 to 8 of the Hidroituango Power Plant. In addition, the Company obtained confirmation of All Risks Construction and Assembly coverage for the second stage of the project with Previsora S.A. Insurance Company, and All Risks Construction coverage for KM 0 + 900 with Seguros Generales Suramericana S.A.

6. Resignation of the Mayor of the District of Medellín and Chairman of the Board of Directors of EPM

On September 30, 2023, Mr. Daniel Quintero Calle, Chairman of the Board of Directors of EPM and representative of the District of Medellín as owner of EPM, submitted an irrevocable resignation as Mayor of Medellín Special District of Science, Technology and Innovation, by means of a communication filed with the President of the Republic, through Decree 1609 of the Ministry of the Interior, the resignation was accepted, and Mr. Óscar de Jesús Hurtado Pérez, who had been serving as Secretary of Finance of Medellín, was appointed as mayor-designate.

7. Arbitration Proceeding filed by Sociedad Hidroeléctrica Ituango S.A. against EPM

On April 28, 2018, the so-called "contingency of the Ituango Hydroelectric Project" occurred due to the collapse of the GAD (Auxiliary Diversion Gallery), which resulted in the implementation of various measures to avert the emergency and recover the project.

This contingency prevented the company from meeting the project schedule and, in particular, the delivery dates of some contractually agreed partial milestones, for example, the beginning of the filling of the reservoir and the start of commercial operation of the generation units.

In view of these circumstances, Sociedad Hidroeléctrica Ituango filed an Arbitration Proceeding with the Chamber of Commerce of Medellín, in which it requested,

basically, that EPM be declared in breach of contract and that, consequently, it should pay:

a. The penalty clauses caused by failure to start filling the reservoir on the stipulated date;

b. The remuneration derived from the commercial operation of the Project that should have been received if the contract had been properly performed.

On December 7, 2023, the Arbitration Tribunal rendered the award whereby:

i. It stated that EPM had breached the BOOMT contract due to a delay in the dates established for milestones 7, 8 and 9, as well as the entry into operation of Group 1 Units.

As a consequence of this decision, and despite the fact that it refrained from sentencing EPM for the payment of the remuneration for the income from the commercial operation to which it was entitled, considering that this was an early request, it did expressly order EPM:

a. To assume all costs and expenses of any nature, including financial expenses due to or arising from the collapse of the diversion works known as SAD (Auxiliary Diversion System) and GAD (Auxiliary Diversion Gallery), until completely resolved and restored; and

b. To pay to Sociedad Hidroeléctrica Ituango, initially, the amount of $781,828,888,350, for "Penalty clauses for failure to meet milestones". It should be noted that this amount will continue to increase until EPM is able to prove the date of compliance with the contract milestones that remain unfulfilled.

The award granted EPM a term of five (5) days to decide whether to pay the penalty clauses in cash or to discount them as a lower value of the Project. This power was granted under the BOOMT contract.

On December 15, 2023, EPM requested the Arbitration Tribunal to clarify and supplement the award, which requests were rejected by the arbitrators by means of an order dated December 18, 2023, thereby rendering the award final.

EPM, pursuant to the provisions of the award, after a rigorous analysis of the options established therein, decided and timely communicated to Sociedad Hidroeléctrica Ituango that it opted to pay the amount of COP 781,828,888,350 for the "Penalty Clauses for Failure to Meet Milestones", as a lower value of the cost of the Project for purposes of calculating the remuneration, once the conditions for such purpose are met.

With this payment and based on current information to date, there is no impact on the Company's liquidity in the medium term and no additional sources of financing are required.

With the analysis made at year-end, the recognition of this obligation in EPM's financial statements as of December 2023 is expected to be assumed as a provision expense in the statement of comprehensive income and as a provision liability in the statement of financial position, in accordance with Accounting and Financial Reporting Standards Accepted in Colombia (NCIF).

EPM will continue to assess the pertinence of exercising legal actions and remedies in defense of its interests.

8. Transfers from EPM to the District of Medellín

Due to the decrease in EPM's profit, mainly generated by the impairment of the investment in UNE, recorded in the accounting records for COP 1,044 billion, transfers to the city dropped from an estimated COP 2 trillion in June 2022 to COP 1.67 million at the end of the period. This led the Board of Directors to request EPM's administration to explore mechanisms to guarantee the transfer of resources to the District, in accordance with the approval of the District's budget for 2023.

Based on the above, on April 20, the Board of Directors authorized the Mayor of Medellín to initiate proceedings before the District Council of Medellín, for the approval of a draft agreement to enable additional transfers requested by the District in the amount of COP 330,000 million.

The procedure before the Council of Medellín was not approved, however, later in November, the District made a new request before the Council for COP 78,229 million, which was approved, and as a consequence, Agreement No. 87 of 2023 of the Council was issued. Based on the Council's approval, EPM's Board of Directors approved an addition to the 2023 expense budget for COP 78,229 million, for the payment of financial surpluses to the District of Medellín.

9. SOMOS Program

On January 26, 2023, the Council of State issued a ruling, according to which EPM could not continue developing the SOMOS financing program (the "Program"), for not being contemplated within its corporate purpose. As of May 26, 2023, after a request for clarification and after the sentence issued by the Council of State became final, EPM suspended the operations of the program and began the process of communicating to customers and other stakeholders about the measures implemented in compliance with the court ruling. This decision only affected customers of the SOMOS program in Antioquia; for the other subsidiaries of Grupo EPM where the program exists, operations continued as usual.

In order to ensure the continuity of the Program, its assets were sold to a company of Grupo EPM that was qualified to operate it. In November 2023, Empresas Públicas de Medellín E.S.P. as Seller and Somos Servicios Integrados Sucursal Colombia (branch of the Panamanian company Somos Servicios Integrados S.A.), as Buyer, entered into an asset purchase agreement, which established the commercial, financial, operational and legal conditions, and in line with them, EPM transferred to the Buyer, as a purchase, the assets comprising the "Somos" financing program. Once the sale of assets was formalized, the buyer started the activities of the Program.

10. Termination of the contract signed with Canacol for the supply of Gas to EPM's market

Following the communication sent by Canacol on October 19, 2023, unilaterally terminating the contract with EPM for the supply of gas to the market, EPM undertook actions on two fronts: first, it began the analysis and procedures for the procurement of gas to meet the needs of customers in the regulated and non-regulated markets and Natural Gas Vehicles (NGV). As a second action, EPM sent a communication to the insurance company, initiating the claim of the compliance policy as established in the contract, given its unilateral termination by Canacol.

11. Emvarias

Since March 2023, EPM's management established an Emvarias Integral Quality Plan (PICE) with the objective of accompanying the subsidiary in the search for operational excellence to ensure efficiency, quality and timeliness in the provision of sanitation services in the metropolitan area of Valle de Aburrá, the prioritization and materialization of strategic projects (landfill, transfer station, vehicle fleet, among others), tariffs (request for tariff modification for final disposal) and the company's labor situation.

Critical concerns were reported to the Board of Directors through EPM's General Management, which received them directly from stakeholders and subsequently assessed them. Those that, due to their relevance, were required to be reported to and analyzed by the highest governing body, were brought to that body and included in the Board of Directors' typical agenda under the item "Manager miscellaneous".

The reporting of critical concerns to the Board of Directors is supported by the minutes of the meetings. GRI 2-16

3.2. Board of Directors EPM

EPM is managed by the Board of Directors, pursuant to the provisions of the Company's Bylaws. GRI 2-09

3.3. Composition of the Board of Directors

Country Code 33.3 – ii. a); GRI 2-09, GRI 2-11

As of December 31, **2023, EPM's Board of Directors was composed as follows:**

During 2023, the following developments occurred in the composition of EPM's Board of Directors:

On September 30, 2023, by Decree 1609 of the Ministry of the Interior, Mr. Daniel Quintero Calle's resignation as Mayor of Medellín Special District of Science, Technology and Innovation was accepted, and Mr. Óscar de Jesús Hurtado Pérez was appointed as mayor-designate.

Oscar de Jesús Hurtado Pérez

Chairman (Non-independent)
Profile: Mayor-designate of Medellín
Start: September/30/2023
Participation in other Boards: 3
Metropolitan Area, RUTA N and Metro de Medellín

Bernardita Pérez Restrepo

Independent
Profile: Public and legal management
Start: August/25/2020
Participation in other boards: 1
Amtex

Pablo Felipe Robledo del Castillo

Independent
Profile: Public and legal management
Start: August/21/2020
Participation in other boards: 1
Executive Committee of the Colombian Tennis Federation (FCT)

Jorge Iván Palacio Palacio

Independent
Profile: Public and legal management
Start: August/17/2020
Participation in other boards: 0

Gildardo Antonio Correa Salazar

Control member (Non-independent)
Profile: Social and community management and public services
Start: August/25/2020
Participation in other boards: 0

Olmer Orlando Palacio Garzón

Control member (Independent)
Profile: Social and community management and public services
Start: 08/25/2020
Participation in other boards: 0

Omar Flórez Vélez

Independent
Profile: Public and legal management
Start: 08/25/2020
Participation in other boards: 0

Sergio Andrés Restrepo Muñoz

Control member (Non-independent)
Profile: social and community management and public services
Start: 05/19/2021
Participation in other boards: 1
UNE EPM Telecomunicaciones

Eréz Bastiaan
Ernest Zaionce

Non-independent
Profile: Corporate, financial and public management
Start: 06/28/2022
Participation in other boards: 0

3.3.1. Composition of the Board of Directors
GRI 2-10

- The Mayor of Medellín, who chairs it.
- Five persons freely appointed by the Mayor of Medellín, all of them with independent status.
- Three persons chosen by the mayor of Medellín from among the control members registered by the committees for development and social control of residential public utilities (Article 27.6 of Law 142 of 1994).

EPM's Corporate Governance Code sets forth the **criteria that the Mayor of Medellín must consider for the appointment of the members** of the Board of Directors: GRI 2-10

- Academic and professional training in subjects related to the corporate purpose of EPM and the functions of a member of the Board of Directors.
- Business or work experience related to the utilities sector.
- For control members, evidence of the time they have been members of the Committee for Development and Social Control that elected them, the relationship they maintain with it and the actions they have carried out in the performance of their duties, is required.

With the participation of the control members in the collegiate body, the constitutional precept of citizen participation in the management and oversight of the Company as an entity providing residential public utilities is materialized and the provisions of Law 142 of 1994 are complied with. Therefore, in EPM's Board of Directors, the control members represent the stakeholder Customers and Users, Community, among others. GRI 2-09

EPM's Board of Directors has maintained at least five of its members as independent, *in accordance with the Master Relations Agreement and the Corporate Governance Code. This also is in line with Article 44 of Law 964 of 2005, which establishes that issuers of securities must maintain a number of independent members of more than 25%.*

At the end of 2023, 55.6% of the members of EPM's Board of Directors were independent.

In order to ensure that the strategic guidance and the policies and guidelines established by the Board of Directors have continuity and do not generate negative effects for the operation of the Company as a result of changes in the municipal administration, and to preserve the level of knowledge and experience acquired by the members of the Board of Directors, in its composition, and by virtue of the Master Relations Agreement, the Mayor of Medellín shall endeavor to maintain at least five of the members as independent. In addition, he will foster a gradual renewal of the members of the Board of Directors, based on the required profiles, as well as the objective average seniority of its members. GRI 2-12

Independent Board Members: Jorge Iván Palacio Palacio, Pablo Felipe Robledo del Castillo, Bernardita Pérez Restrepo, Omar Flórez Vélez and Olmer Orlando Palacio Garzón, held this status from the date of their appointment.

The independence criteria for EPM's Board of Directors are in accordance with the provisions of Law 964 of 2005 (Article 44), the Master Relations Agreement and good corporate governance practices. The independence criteria can be consulted in EPM's Corporate Governance Code. GRI 2-09

Likewise, the members of the Board of Directors are subject to the regime of disqualifications and incompatibilities established by law, in accordance with Article 9 of the Bylaws.

3.3.2. Profiles of the members and characteristics of the Board's composition

GRI 2-09 GRI 405-1

Board member profile* matrix

Training and/or experience / Board members	Daniel Quintero Calle	Oscar Hurtado Pérez	Jorge Iván Palacio Palacio	Bernardirta Pérez Restrepo	Pablo Felipe Robledo del Castillo	Omar Florez Vélez	Sergio Andrés Restrepo Muñoz	Gildardo Antonio Correa Salazar	Olmer Orlando Palacio Garzón	Eréz Bastiaan Ernest Zaionce
Business management	X					X				X
Financial management	X	X								X
Management of public utilities or other business sectors of EPM, including urban development and social control of public utilities		X					X	X	X	
Ethics, sustainability and corporate social responsibility						X	X			
Public management	X	X	X	X	X	X				X
Legal management			X	X	X					
Social and community management							X	X	X	

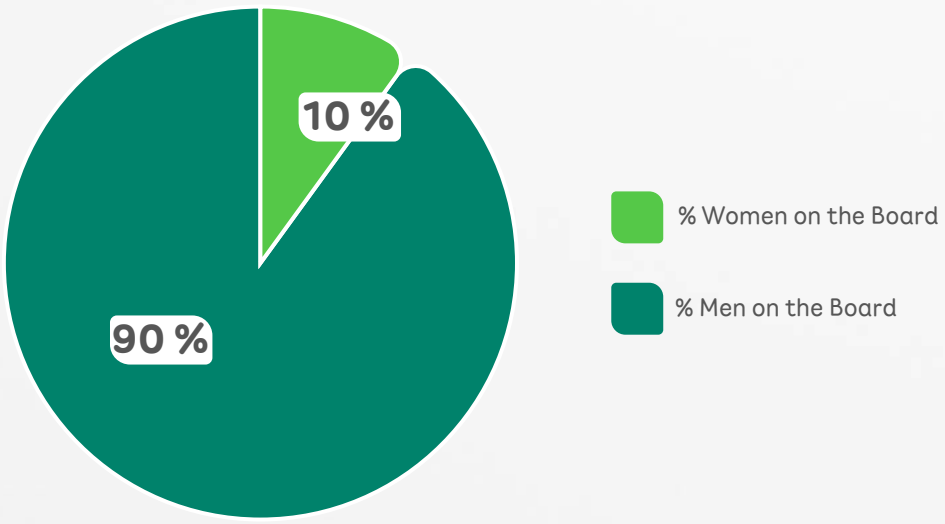
*"Profile" means the area of knowledge in which one has training or experience.

The characteristics of the Board of Directors, in terms of the background, experience and trajectory of its members, diversity of perspectives, gender and nationality, and participation in other boards, are factors that contribute to appropriate strategic decision making. Likewise, the process of appointing members seeks to ensure interdisciplinarity and diversity of knowledge, including sustainability issues. By 2023, the Board of Directors' profile matrix included the following profiles to address climate change issues: TCFD GB-01

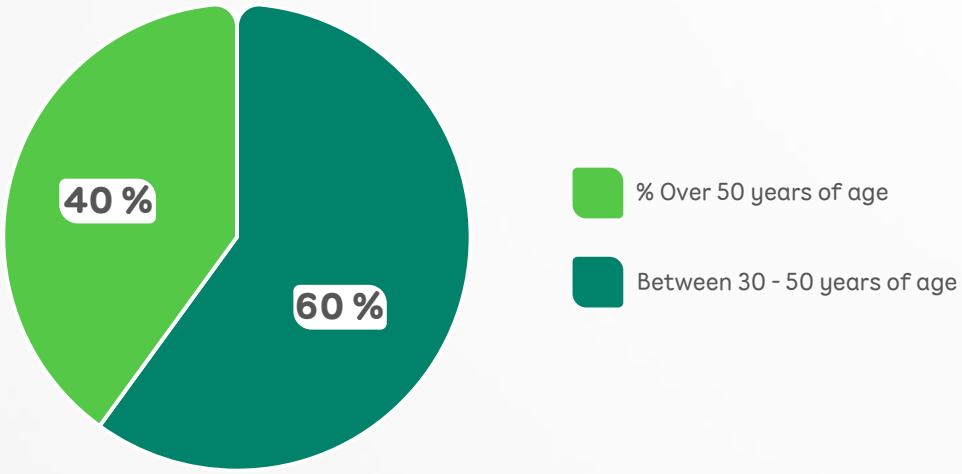
Training and/or experience	As of December 31, 2023
Business management	3 board members
Ethics, Sustainability, Social and Corporate Responsibility	2 board members

The detail of the curriculum vitae of the members of the Board of Directors can be found in Schedule 2 | Curriculum vitae of EPM Board members of this Report. Country Code 33.3- ii b); GRI 2-09

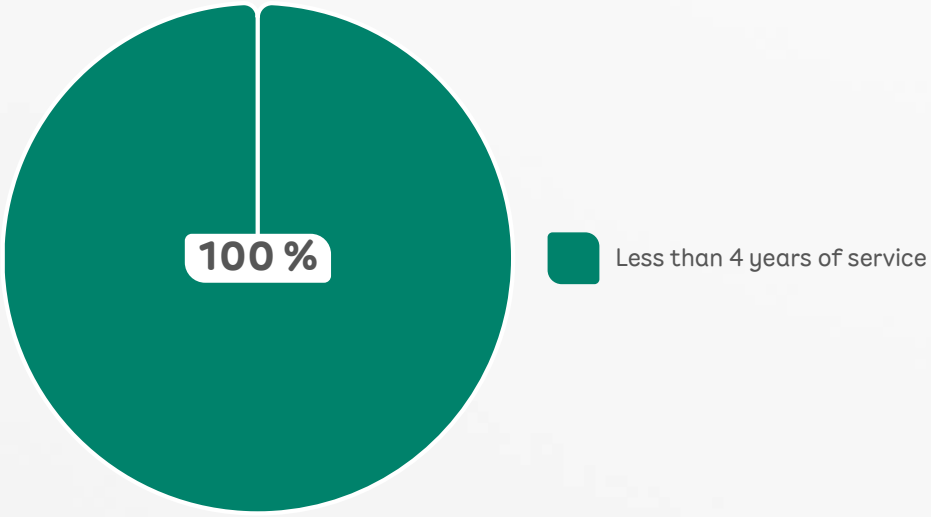
Distribution by gender



Distribution by age range



Distribution by rank of length of service on the Board of Directors



3.3.3. Board Induction

GRI 2-17

During 2023, the Board maintained its composition, therefore no inductions were carried out.

3.3.4. Board Training

GRI 2-17

The Colombian Institute of Corporate Governance led the Certification of Board Members in Colombia, which aims at contributing to the professionalization of the role of Board member. In 2022, 3 cohorts graduated; as of the second cohort, board members of both EPM and the subsidiaries of Grupo EPM participated; 7 members participated in the second cohort, of which 2 were Board members of EPM and 5 were members of subsidiaries. Three board members of subsidiaries of Grupo EPM participated in the third certification.

EPM's Board of Directors continued to develop its knowledge and expertise on climate change: TCFD GB-01

- During the joint meeting session on December 1, 2023, a talk was held with the participation of Mauricio López González, executive director of the Colombian Network of the United Nations Global Compact. This meeting addressed the challenges and strategies faced by companies on the road to sustainability and the achievement of the SDGs in an ever-changing world.

  Perspectives on ESG (Environmental, Social and Governance) management were shared, highlighting the importance of considering not only the financial aspects, but also the environmental and social impacts of business operations. In addition, the conversation focused on promoting sustainable practices and creating positive impact in the communities in which they operate.

  This space reaffirmed the Organization's commitment to sustainability and its actions to contribute positively to current global challenges. It also served to keep Board members abreast of the issues shaping the global sustainability agenda, including climate change.

3.3.5. Quorum of the Board of Directors

Country Code 33.3 – ii. i)

In 2023, the required deliberating and decision-making quorum for the Board of Directors' meetings was met, which corresponds to the majority of members present at the respective meeting.

Quorum by Board meeting, 2023

	January	February				March	April	May			
Meeting date	4	17	1	2	10	27	20	3	19	23	29
Minutes No.	1,751	1,752	1,753	1,754	1,755	1,756	1,757	1,758	1,759	1,760	1,761
% Quorum	100 %	100 %	100 %	100 %	89 %	100 %	100 %	100 %	78 %	100 %	100 %

	June		July	August			September				
Meeting date	7	22	5	2	14	16 y 28	6	12	14	25	27
Minutes No.	1,762	1,763	1,764	1,765	1,766	1,767	1,768	1,769	1,770	1,771	1,772
% Quorum	100 %	100 %	100 %	100 %	100 %	100 %	78 %	100 %	100 %	100 %	100 %

	October			November		December		
Meeting date	4	9, 10 y 11	18	1	22	5	13	19
Minutes No.	1,773	1,774	1,775	1,776	1,777	1,778	1,779	1,780
% Quorum	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %

For decision-making purposes, each member of the Board of Directors has one vote.

3.3.6. Management of the Board of Directors

GRI 2-16; TCFD GB-01

EPM's Board of Directors addressed within its annual calendar the definition and periodic follow-up of the Corporate Strategy. It is the responsibility of the Board of Directors, for the sake of EPM's consolidation and sustainability, to watch over the development of the approved businesses and projects, to make the sustainability model visible as a fundamental pillar in the implementation of the corporate strategy, to generate value for stakeholders, the Organization and the territories, in economic, social, environmental, ethical and governance terms, to define strategies and manage risks in corporate sustainability matters, so as to allow EPM to continue being a reference in sustainability for other companies and business groups at a national and international level.

The **corporate purpose** "Contributing to the harmony of life for a better world" is the core element of Grupo EPM's strategic guidance and is consistent with the guidelines of the Global Compact's architecture for a better world, focused on respect for universal principles, the adoption of measures to support the broader objectives of the United Nations and participation in alliances and collective actions at the global and local levels. The Organization not only connected to this principle, but also endorsed its vision of sustainability and, therefore, made a commitment to contribute to the achievement of the Sustainable Development Goals.

MEGA Grupo EPM 2030: *"We generate well-being and sustainable development with agile solutions in public utilities"*, which is an comprehensive part of the Group's Strategic Guidance, was approved by the Board of Directors in April 2023, and includes within its elements the sustainability component that seeks, among others, to contribute to the reduction of Greenhouse Gas (GHG) emissions and achieve a carbon neutral operation as EPM's contribution to the decarbonization of the economy and to the global efforts that must be made worldwide to stop the increase in the planet's average temperature.

Additionally, as defined in the **Sustainability Policy**, Grupo EPM fosters the generation of value for people, territories and their environments through

the mission activities of its businesses and companies, by means of individual and collective actions that reconcile the achievement of business objectives with sustainable human development.

The **sustainability approach is the fundamental basis of the strategic guidance,** incorporates good governance practices, has an ethical foundation based on the recognition of impacts that business decisions generate on its stakeholders, the environment and society in general, and is consistent with postulates contemplated in local, national and global initiatives.

The Board, through its Sustainability, Strategy and Investment and Audit and Risk committees, followed up on EPM's strategic issues and risks.

Among the issues associated with climate change that were submitted to the aforementioned Board committees were the results of the annual estimate of the inventory of greenhouse gas emissions, the initiatives to achieve carbon neutral operations (renewable energies, energy efficiency, sustainable mobility and carbon footprint management) and the management of risks identified in the Group's and EPM's Business Risk Matrix, which include risks related to climate change and energy transition. They also followed up on the indicators of Grupo EPM's balanced scorecard, one of which is the Carbon Neutral Management Plan of Grupo EPM.

During 2023, EPM's Board of Directors complied with its corporate governance duties, which are defined in article 17 of EPM's Bylaws, contained in Agreement No. 12 of 1998 of the Council of Medellín. In engagement, the Board of Directors is responsible for issuing the general rules and establishing the amounts within which the General Manager may delegate the authority to award and enter into contracts. **GRI 2-13**

Both the chairman of the Board of Directors and the secretary of the Board of Directors, who, according to the Bylaws, is also the general secretary of EPM, fulfilled in 2023 the functions assigned in the *Board of Directors Regulations* **Country Code 33.3 – ii. k), l); GRI 2-12**

3.3.7. Typical agenda and Board calendar

GRI 2-12, GRI 2-13, GRI 2-14

The **typical agenda** and **the annual calendar of EPM's Board of Directors** are planning instruments that allow the collegiate body to address the topics that are fundamental and in which its contribution is greater, in accordance with the provisions of the Board of Directors Regulations and in line with the Country Code recommendations.

The **typical agenda** defines the frequency and periodicity with which the following topics are discussed during the year: strategy, business, investments, corporate governance, financial, audit, risk, compliance, legal, human development, environmental and social, among others.

The **topics scheduled by typical agenda** and reviewed by the Board of Directors in 2023 were as follows:

Issue	Topic	Nature
Formal issue of the Board	Verification of quorum and approval of agenda	Approval
	Consideration and approval of previous minutes	Approval
	Follow-up on requests from the Board of Directors	Informative
	Miscellaneous (includes Board member topics)	Informative
	Relevant information	Approval
	Update of map of objectives, BSC, including: Environment Report	Informative
	Proposed map of objectives EPM, BSC 2030 EPM	Approval
	Proposed EPM Business Plan 2024 - 2027 and budget 2024	Approval
	Comprehensive update of Business Plan (including adjustment to Investment Plan 2023-2026).	Approval
	Monitoring of Group and EPM Corporate Strategy (BSC View)	Informative
	ESG Monitoring (Group Sustainability Model)	Informative

Issue	Topic	Nature
Follow-up on functional strategies	Follow-up on technology and information topics	Informative
	Growth monitoring	Informative
	Follow-up on human talent strategy and cultural development	Informative
	Follow-up on communication strategy	Informative
	Follow-up on Fundación EPM	Informative
	Follow-up on supply and shared services topics, covering the Group	Informative
Monitoring of competitive strategies of Grupo EPM's businesses	Monitoring of Power Generation Business, covering the Group	Informative
	Follow-up on Gas Business	Informative
	Monitoring of Water Supply and Wastewater Management Business, covering the Group	Informative
	Follow-up on Solid Waste Business - Follow-up on Emvarias	Informative
	Monitoring of Energy Distribution and Transmission Business, covering the Group	Informative
	Business monitoring from the perspective of Customers-Users by the management and control members of the Board of Directors.	Informative
Monitoring of program and project portfolios	Group Investments: Afinia	Informative
	New solutions and commercial offers	Informative
	Optimization of operations	Informative
	Infrastructure sustainability, modernization and expansion	Informative
	Follow-up on strategic projects: Tepuy, Hidroituango	Informative
Monitoring of operating and non-operating investments	Follow-up on UNE	Informative
	Monitoring of investment and portfolio decisions	Informative
	Promobiliaria Management Report	Informative
Corporate Governance Topics	Board Committee Reports	Informative
	General Manager's Report	Informative
	Evaluation of general manager and Board of Directors of EPM	Informative
	Typical agenda of the Board of Directors and annual calendar	Approval
	Corporate Governance Report	Approval
	Country Code Report	Informative

Issue	Topic	Nature
Financial topics	Approval of financial statements of EPM and Grupo EPM as of December 31, 2022.	Approval
	External auditor's report as of December 31, 2022	Informative
	2023 Budget Modification	Approval
	Grupo EPM Financial Plan and Financing Plan	Approval
	EPM Financial Plan	Approval
	Follow-up on financial statements	Informative
	Future periods	Approval
Audit topics	Follow-up on Audit Plan and results of evaluations by external control entities	Informative
Risk, compliance and legal topics	Foreign exchange risk monitoring	Informative
	MaxSeguros Management Report	Informative
	Follow-up on Group/Business/EPM risk map (considering analysis from ESG perspective).	Informative
	Report on conflict of interest disclosures from the first line of reporting to Management (including manager).	Informative
	Compliance Unit Management Report	Informative
	Anti-corruption and Citizen Service Plan	Informative
	Follow-up on legal contingencies, covering the Group	Informative
Human Development	Public employees salary increase	Approval
	Organizational Management (Personnel Management)	Informative

3.3.8. Board of Directors Information System

Country Code 33.3 – ii. o)

EPM's Board of Directors has an **information system** with exclusive access to consult all the information required for the development of the meetings of the Board of Directors and its support committees, as well as for the fulfillment of requests and commitments. The system remained available with permanent technical and functional support.

In 2023, the technological migration of the system continued in order to meet security requirements and the technical standard NTC5854, which aims at establishing accessibility requirements.

1.1.1. Attendance at Board of Directors Country Code 33.3 – ii. j)

During 2023, **30 Board of Directors meetings were held:**

- **Total, meetings:** 30 meetings
- **Regular mixed:** 12 meetings
- **Regular face-to-face:** 1 meeting
- **Special mixed:** 11 meetings
- **Special virtual:** 6 meetings
- **Average time of regular mixed meetings:** 7 hours-30 minutes
- **Average time of regular face-to-face meetings:** 7 hours-30 minutes
- **Average time of special mixed meetings:** 2 hours-53 minutes
- **Average time of special virtual meeting:** 1 hour-57 minutes

The total average attendance of Board members was 99%. The following is a breakdown of **attendance for each member:**

Board Member	% Total attendance	% Attendance face-to-face	% Virtual attendance	Summary
Daniel Quintero Calle	100 %	24 %	76 %	February-September
Oscar Hurtado Pérez	100 %	50 %	50 %	October - December
Juan Pablo Ramírez Álvarez	100 %	100 %	0 %	January - January
Bernardita Pérez Restrepo	100 %	43 %	57 %	January - December
Eréz Bastiaan Ernest Zaionce	100 %	46 %	54 %	January - December
Gildardo Antonio Correa Salazar	100 %	70 %	30 %	January - December
Jorge Iván Palacio Palacio	97 %	39 %	55 %	January - December
Olmer Orlando Palacio Garzón	100 %	63 %	37 %	January - December
Omar Flórez Vélez	100 %	53 %	47 %	January - December
Pablo Felipe Robledo Del Castillo	100 %	13 %	87 %	January - December
Sergio Andrés Restrepo Muñoz	100 %	57 %	43 %	January - December

3.3.9. Management of Board committees

The **support committees for the Board of Directors** are spaces designed with the purpose of guaranteeing efficiency in the decision making process of EPM's highest management body, through a detailed analysis of topics prior to each Board of Directors' meeting. GRI 2-13

The committees are appointed and composed of members of the Board of Directors and chaired by independent members. The training and experience of its members is taken into account in its composition, such that they are related to the functions and responsibilities of each Committee. Country code 33.3-i i.p) GRI 2-09, GRI 2-10, GRI 2-12

During 2023, the **Board of Directors' advisory committee "Sustainability, Strategy and Investments"**, in the exercise of its functions, followed up on climate-related issues within the framework of its agenda (typical and exceptional) specifically through the following topics: TCFD GB-01

- Follow-up on EPM and Grupo EPM businesses: as part of these comprehensive follow-ups, each business reported to the committee (if applicable) the impact (past) of weather events on its operation and the associated risks (future) reflected in its risk map, covering the Group The businesses (i) Water and Sanitation, and (ii) Power Generation, showed climate forecasts and expectations associated with the development of the El Niño-Southern Oscillation (ENSO) phenomenon for the second half of 2023 and the beginning of 2024.
- MEGA 2030 Grupo EPM: the update of MEGA (large and ambitious strategic goal) for 2030 was submitted to this body. In this update, a "Sustainability" trajectory was defined. This trajectory contains plans and projects focused on materializing Grupo EPM's Sustainability Model and achieving the goals set for the MEGA sustainability indicators, among them: "Adaptation to climate change".

The **"Audit and Risk" advisory committee of the Board of Directors**, in the performance of its duties, followed up on climate-related issues within the framework of its agenda, specifically through the following topics: TCFD GB-01

- In 2022, the Board of Directors approved the annual planning based on risks that included elements of Strategic Guidance, deployment and alignment of strategy; some of them were assessed in 220433ID - Carbon Neutrality Management Evaluation Audit Report - CER and REC sales, which objective was to assess the controls implemented for the management of the progress towards Carbon Neutrality in the EPM business group and the management of income from the sale of Emission Reduction Certificates (CER) and Renewable Energy Certificates (REC). The following opportunities for improvement were identified:
  - Development of a specific plan to achieve the Carbon Neutral goal by 2025 with annual GHG reduction targets and corresponding strategies.
  - Formalization of climate modeling team to project the impact of climate change on Grupo EPM's services and take preventive measures.
  - Progress in the identification of climate risks, preparation of improvement plans and updating of risk matrices for adaptation in the Group's businesses.
  - Management of information to complete GHG inventories provided by the Group's businesses and companies.
  - Analysis of Carbon Neutral Management Plan indicator and its publication in the Sustainability Report.
  - Management of information in the event of changes in the corporate name of clients, avoiding inconsistencies in the traceability of data.
  - Design and definition of certification and sale of emission reduction and renewable energy certificates, applying controls to manage revenues.
- On April 14 and June 30, 2023, the monitoring of risks of Grupo EPM and its businesses was submitted.

- On December 6, 2023, the risk of scarcity, impairment of water resources conditions or difficulty to access such resources for the provision of services or development of expansion projects was reviewed.

3.3.10. Changes in Board committees

During 2023 **the Board of Directors' support committees had the following changes:**

At the Board of Directors meeting held on January 17, 2023, the following was approved:

- Creating the information technology, cybersecurity and innovation committee, focusing on the following aspects:
  - Information and business technologies and their defense capabilities (cyber defense).
  - IT security strategy and operating model.
  - Cyber risks and how they impact business risks.
  - Being at the forefront of technological innovation and service delivery.

With the creation of this committee, the Board of Directors sought to reinforce the strategic focus of information technology, define strategies to manage and mitigate risks derived from information security, minimize the risks of affecting the provision of the service and make informed decisions on these matters.

- On February 1, 2023, the Board of Directors approved:
  - To issue the regulations of the IT, cybersecurity and innovation committee, by means of Decree 707..
- To modify the name of the strategy and investment committee to sustainability, strategy and investment committee and adjust its functions by means of Decree 706. This change allowed:
  - Greater empowerment of the Board of Directors in its role as strategic leader, responsible for providing stability and long-term vision to the Organization.

- For making Grupo EPM's Sustainability Model visible as a fundamental pillar in the implementation of the corporate strategy.
- For generating value to stakeholders.

- To modify article 8 "Composition" of the project follow-up committee, adjusting it to 4 members.

The following table lists the committees of the Board of Directors of EPM that operated in 2023, their composition and the topics they are responsible for, which are articulated with the recommendations of the Country Code and with the legal and corporate functions.

Committee	Nature	Composition during 2023
Audit and risks	To support and advise the Board of Directors in internal control, internal audit, risk management, oversight and disclosure of financial and non-financial information, evaluation of accounting procedures and budget execution, evaluation of compliance with legal obligations and relations with external auditor. GRI 2-14 The audit and risk committee, with the purpose of supervising the effectiveness and compliance of the comprehensive risk management system, reviews the Company's risks, incorporating the risk associated with climate change and water, referred to as "Scarcity, impairment of water resources conditions or difficulty to access such resources for the provision of services or development of expansion projects". (Article 7 "Functions and competencies". Sustainability, Strategy and Investment Committee Regulations. Decree 644 dated April 2022) TCFD GB-01	▶ Bernardita Pérez Restrepo (P) ▶ Pablo Felipe Robledo del Castillo ▶ Olmer Orlando Palacio Garzón EPM's external auditor is a permanent guest of the Audit Committee, as it has a constant and periodic relationship with the Board of Directors.

Committee	Nature	Composition during 2023
Management and Corporate Governance	To provide support and advice to the Board of Directors in administrative structure, human talent man-agement, appointments and compensation of Board members and senior management, corporate gov-ernance and communications strategy. GRI 2-20	▶ Pablo Felipe Robledo del Castillo (P) ▶ Bernardita Pérez Restrepo ▶ Omar Flórez Vélez ▶ Jorge Iván Palacio Palacio
Sustainability, strategy and investments	To support and advise the Board of Directors in strategic guidance, sustainability, investment, growth and new business, and stakeholder relations. GRI 2-14 The sustainability, strategy and investment committee analyzes, evaluates and monitors Grupo EPM's strategy, and recommends to the Board of Directors guidelines for development. It informs, promotes, guides and supervises EPM's performance and agenda in sustainability, including corporate social and environmental management, and environmental, social and governance (ESG) factors, and submits the appropriate recommendations to the Board of Directors. Article 7 "Functions and competencies". Sustainability, Strategy and Investment Committee Regulations. Internal Decree 705 dated February 1, 2023. TCFD GB-01	▶ Jorge Iván Palacio Palacio (P) ▶ Sergio Andrés Restrepo Muñoz ▶ Eréz Bastiaan Ernest Zaionce
Project follow-up	To support and advise the Board of Directors in the definition, execution and follow-up of prioritized infrastructure or business line projects.	▶ Omar Flórez Vélez (P) ▶ Sergio Andrés Restrepo Muñoz ▶ Eréz Bastiaan Ernest Zaionce ▶ Gildardo Antonio Correa Salazar
Legal	To provide support and advice to the Board of Directors on legal matters dealt with.	▶ Bernardita Pérez Restrepo (P) ▶ Pablo Felipe Robledo del Castillo ▶ Jorge Iván Palacio Palacio
IT, cybersecurity and innovation	To provide support and advice to the Board of Directors in information technology and business, cyber defense, cyber risks and their impact on business risks, monitoring the management and execution of EPM's innovation strategy, as well as being at the forefront of technological innovation and service delivery.	▶ Omar Flórez Vélez (P) ▶ Sergio Andrés Restrepo Muñoz ▶ Eréz Bastiaan Ernest Zaionce

3.3.11. Attendance at Board committees

Country Code 33.3 – ii. j)

Attendance at Board committees was 100%, as follows:

Total number of meetings Member	11 Management and Corporate Governance	13 Sustainability, Strategy and Investments	11 Audit and Risk	11 Project Follow-up	16 Legal	3 IT, Cybersecurity and Innovation
Bernardita Pérez Restrepo	100 %		100 %		100 %	
Pablo Felipe Robledo Del Castillo	100 %		100 %		100 %	
Omar Flórez Vélez	100 %			100 %		100 %
Jorge Iván Palacio Palacio	100 %	100 %			94 %	
Sergio Andrés Restrepo Muñoz		100 %		100 %		100 %
Olmer Orlando Palacio Garzón			100 %			
Gildardo Antonio Correa Salazar				100 %		
Eréz Bastiaan Ernest Zaionce		100 %		100 %		100 %
% Total attendance (*)	**100 %**	**100 %**	**100 %**	**100 %**	**98 %**	**100 %**

** The percentage of attendance is given as a function of the number of meetings attended over the number of meetings scheduled. If there are changes in the composition of the committees during the period, this will be reflected in a greater number of members in the committee which composition was changed.*

3.3.12. Remuneration of the Board of Directors

Country Code 33.3 – ii. h); GRI 2-19, GRI 2-20

By means of Decree 1165 dated August 12, 2009, the mayor of Medellín, as representative of the community and of the District of Medellín as owner

of EPM, defined the remuneration of the members of the Board of Directors of EPM at three current legal monthly minimum wages in Colombia for the attendance at each meeting of the Board of Directors and of each committee. Country Code 33.3–ii. g)

At EPM, the members of the Board of Directors do not receive variable remuneration; the mayor of Medellín, as a member of the Board of Directors, does not receive remuneration.

The **amount paid for attendance to the members of the Board of Directors** in 2023 is shown below:

Item	Value paid in 2023
Board of Directors	COP 817,800,000
Board Committees	COP 748,200,000
Travel expenses	COP 18,114,544
Total paid	**COP 1,584,114,544**

Section 3.8 of EPM's Corporate Governance Code establishes that the members of the Board of Directors are granted the possibility of attending, at the Company's expense, training programs that are directly related to the activity of the entity and the functions they must perform.

The Company also acknowledges the costs of transportation, meals and lodging when required to attend Board of Directors' meetings and decentralized Board committees (outside the Company's facilities).

3.3.13. Evaluation of the Board of Directors

Country Code 33.3 – ii. q); GRI 2-18

The **evaluation of the management bodies** is one of the most important corporate governance practices, insofar as it allows the Board of Directors as a whole, as well as its members individually, to identify areas for improvement and direct their collective work towards more effective compliance.

For EPM, **the evaluation of the Board of Directors and its committees** constitutes a follow-up mechanism for compliance with the responsibilities and commitments of this collegiate body, which are stipulated in Article 7 of the Board of Directors regulations. The evaluation also makes it possible to identify the value that the performance of the members of the Board of Directors adds to the management of the Organization.

The annual implementation of this practice allows EPM to adjust to global governance challenges.

The **methodology applied in 2023** was as follows:

Self-assessment

Each member of the Board of Directors made an individual assessment of the collegiate body as a whole and of his or her own performance as a Board member.

Management assessment

Senior management assessed the Board of Directors from its perspective. It made it possible to assess the degree of alignment between the Company's management and administration.

Interview

If necessary, interviews may be conducted with the members of the Board of Directors, as a mechanism to clarify specific points on self-assessment.

Evaluation process

The evaluation process consisted of the following 4 steps:

1. Completion of electronic questionnaires
2. Interviews with key stakeholders*
3. Data processing
4. Consolidation and reporting

1. **Completion of electronic questionnaires:** by members of the Board of Directors/senior management.
2. **Interview with key stakeholders:** on some occasions, interviews may be conducted with members of the Board of Directors and/or senior management in order to ascertain their perceptions on the different topics of the evaluation.
3. **Data processing:** the product of questionnaires and interviews, must be carried out with rigor and confidentiality criteria.
4. **Consolidation and reporting:** the information processed must be consolidated into a concrete evaluation report, which allows for the identification of opportunities for improvement.

The results of the evaluation were submitted at the Board of Directors meeting held on November 22, 2023.

3.3.14. Strengthening Plan 2023

On September 28, 2022, the Board of Directors approved the **Strengthening Plan of the Board and its committees** for 2022-2023.

The plan included the actions that the Board members and Management considered important to implement to address the recommendations derived from the evaluation conducted by the consultant KPMG Advisory, Tax & Legal S.A.S. in 2022. This plan contemplated four periods for the fulfillment of milestones, from October 2022 to December 2023.

The deliverables were:

- **Typical Board and committee agenda**
  Incorporated topics related to ESG criteria to contribute to the Company's Sustainability Model and informed the Board of Directors about the needs and expectations of stakeholders.
- **Internal guidelines for timely publication**
  Information filtering activities to optimize the process of review, understanding, discussion and decision making by board members.

- **Proposed schedule to Master Agreement**
  Proposed schedule to the Master Agreement to be reviewed at a work table with the District of Medellín for the selection process and timely replacement of the members of the Board of Directors.

- **Training**
  Strengthen the training process in order to optimize the board's performance, in contents related to: updating in Corporate Governance, climate change, risks and finances; of which only the first two topics were addressed.

As of December 31, 2023 and based on the development of the above mentioned deliverables, the level of compliance with the Board of Directors Strengthening Plan for the 2022-2023 period was 95 %.

3.4. EPM Senior Management

GRI 2-09

The administration of EPM, its representation and the management of its business is made by the general manager, who is empowered to enter into or execute, without other limitations than those established in the Bylaws, all acts included in its purpose or directly related to its existence or operation.

In terms of changes, EPM's general manager, Jorge Andrés Carrillo Cardoso, was in office until December 28, 2023. Vice President of Legal Affairs, Jhonatan Estiven Villada Palacio, served as general manager from December 29 to December 31, 2023.

EPM's senior management is comprised of twelve executives, reporting directly to the general manager. It has functions, covering Grupo EPM, and is responsible for directing, planning and verifying compliance with the objectives, plans and goals of EPM and the subsidiaries of the business group. GRI 2-13

The team of vice presidents that accompanied the management of Mr. Jorge Andrés Carrillo Cardoso as general manager during 2023, had the following developments:

No.	Title	Developments	Name	Profile
1	General Manager	Resigned on 12/28/2023.	Jorge Andrés Carrillo Cardoso	Civil engineer, environmental engineer, master in environmental management.
		Jhonatan Estiven Villada Palacio served as of 12/29/2023.	Jhonatan Estiven Villada Palacio	Lawyer; with specialization and master's degree in government procurement; specialization in labor and social security law.
2	Executive VP - Business Management	Served until 01/31/2023.	Daniel Arango Ángel	Business administrator, management specialist and master in business administration (MBA).
		Served from 02/01/2023 to 05/7/2023 and from 05/23/2023 to 08/13/2023. Subsequently, Santiago was appointed under the modality of commission to perform the duties of a public employee freely appointed and removed from office at Empresas Públicas de Medellín, since 08/14/2023.	Santiago Ochoa posada	Civil Engineer, specialist in ISO 9000 quality management systems.
3	Executive VP - Projects and Engineering	Retired on 01/05/2023.	Gabriel Jaime Betancourt Mesa	Civil engineer, specialist in information systems and management.
		Was appointed as of 02/3/2023.	Wilder Wiler Echavarría Arango	Civil engineer, specialist in government and local development; specialist in civil service and human resources management; specialist in senior public management and project management.
4	Executive VP - Finance and Investments	No changes.	Martha Lucía Durán Ortiz	Economist, master in economics.
5	Executive VP - New Business, Innovation and Technology	No changes.	Darío Amar Flórez	Production engineer, finance specialist and market specialist, currently pursuing a master's degree in digital transformation.
6	VP Legal Affairs	No changes.	Jhonatan Estiven Villada Palacio	Lawyer, specialist in labor and social security law, specialist and master in government procurement.

No.	Title	Developments	Name	Profile
7	VP Human Talent and Organizational Development	No changes.	Juliana Carolina Zapata Molina	Civil engineer and master in business administration.
8	VP Communication and Corporate Relations	No changes.	Mabel Rocío López Segura	Media executive and journalist, lawyer, specialist in administrative law and master in political studies.
9	VP General Secretariat	No changes.	María Cristina Toro Restrepo	Lawyer, specialist in commercial law, tax and customs law, specialist in mining and energy law.
10	VP Risks	No changes.	Andrés Felipe Uribe Mesa	Lawyer, with a master's degree in business administration MBA.
11	VP Corporate Audit	No changes.	Gustavo Alejandro Gallego Hernández	Lawyer, bachelor's degree in special education and master's degree in state law with emphasis on regulation and management of telecommunications and ICT.
12	VP Supplies and Shared Services	No changes.	Carlos Enrique Londoño Amariles	Industrial engineer, specialist in management with emphasis on human talent, specialist in financial management and master's degree in government and public policies.
13	VP Sustainability and Strategy	Served from 01/01/2023 to 02/05/2023.	Luisa María Pérez Fernández	Civil engineer, with a master's degree in civil engineering with emphasis on water resources, specialist in economics, PhD student in economics.
		Was appointed under the modality of commission to perform the duties of a public employee freely appointed and removed from office at Empresas Públicas de Medellín since 6/02/2023.	Ana Milena Joya Camacho	Civil engineer, specialist in project management, environment and geo-informatics.

The detail of the curriculum vitae of the members of the Senior Management of EPM can be found in Schedule 2 | Curriculum vitae of EPM Senior Management members of this report.

During 2023, the following issues were highlighted in the activities of senior management, which were aimed at contributing to the fulfillment of the Sustainable Development Goals. GRI 2-13

Corporate and strategic issues

- **MEGA 2030:** in 2023 we decreed a new Large and Ambitious Strategic Goal 2030: we generate well-being and sustainable development with agile solutions in public utilities, which achievement will be monitored through four trajectories: (1) fulfillment of challenges assumed by the end of 2022, (2) decrease in AOM costs due to the initiatives identified in the program, (3) productivity paths, acquisition or addition of new assets to the Group, and (4) activation of concrete sustainability actions.
- **Formalization and disclosure of the new enabling MEGA 2030 Governance Model:** its main objective is to strengthen the unity of purpose and direction of the Organization as a business group.
- **Updating of ERP of Grupo EPM (Enterprise Resource Planning) - Saphiro Project:** During 2023, the design of this program was completed and its execution began. The purpose of this program is to acquire and implement an ERP solution, covering Grupo EPM, to support financial processes, supply of goods and services, and financial management of fixed assets.
- **Supply Chain Optimization Program:** design and start of implementation of this program, which seeks to strengthen capabilities, strategic vision and organizational leadership to optimize engagement times and meet business needs in a timely manner.
- **Strengthening cybersecurity:** development of a strategy aimed at preventing and reacting quickly to attacks such as that occurring in December 2022.
- **Diversity, equity and inclusion (DEI):** progress is being made with the creation and implementation of a roadmap in this regard at Grupo EPM.

- **Towards organizational agility:** progress was made in the implementation of agile and innovative communities of practice. In view of this intention, the Vice-Presidency of Human Talent and Organizational Development was transformed into the Vice-Presidency of Employee Experience and Organizational Solutions.
- **Management of the Organization's critical positions:** the risks associated with people in critical positions related to operational safety continued to be identified and managed, for which purpose the level of individual vulnerability of 374 people was assessed by means of a psychophysical profile and operational safety competencies.
- **Productivity Paths Program:** this program was designed and implemented to contribute to the improvement of the value of EPM's operations through the optimization of costs and manageable expenses, incorporating the benefits of investments in asset replacement and technology.
- **Management of tax benefits:** EPM contributes to the different tax authorities with the payment of taxes, rates and contributions, and for the 2023 period, as of September, it recognized $1.18 billion pesos in this regard. In addition, value was generated for the different stakeholders through the use of tax benefits contemplated in the tax legislation.
- **Management of financing and bank guarantees:** strengthening liquidity and financial position, obtaining the necessary resources to finance Grupo EPM's Business Plan, in a complex and demanding global environment.

Business

- **Hidroituango Power Plant:** start-up of units 3 and 4. Awarding of civil works for units 5 to 8 and execution of critical contracts for the Project (right tunnel plugging works and works at kilometer 0+900). Overall progress as of December 2023 was 92%.

- **Modernization of power generation plants:** as part of the operational safety and continuity of the Power Generation Business, during 2023 progress was made with the design and engagement processes for the modernization and replacement of equipment at the Guatapé, Playas, Tasajera, Troneras, Guadalupe III, Guadalupe IV and Niquía power plants, as well as civil works for updating the Miraflores and Piedras Blancas dams. Dur-ing the current year, the commercial operation of the Caracolí SHP (small hydroelectric power plant) optimization project is noteworthy, where the installed capacity increased from 2.6 MW to 3.75 MW.

- **EPM Renovables:** this subsidiary was created in Panama to promote the growth of renewable energies in the Americas. Its initial focus will be Panama, El Salvador, Guatemala and Colombia. The subsidiary will seek a strategic partner to provide capital and know-how.

- **Tepuy Solar Park Project:** all activities associated with the civil works for the 100MVA power transformer were completed, and significant progress was made on environmental and social matters.

- **Solar energy community pilot project in the El Salvador neighborhood in Medellín:** this initiative was developed between the School of Engineering of Antioquia (EIA), EPM, ERCO and NEU, with the purpose of designing a replicable and scalable solution for ener-gy communities in the Colombian context.

- **Grupo EPM Hydrogen Roadmap:**
  - Launch of the Medellín Hydrogen Hub, on July 24, 2023, in conjunction with Ruta N. This space has the purpose of becoming an articulator of hydrogen knowledge in Medellín and Valle de Aburrá.

  - Hydrogen production at the Aguas Claras wastewater treatment plant: progress was made in the process of installing and assembling a pilot project for the production and use of hydrogen, located at this plant, in association with the subsidiary Aguas Nacionales.

- **Biomethane Plant:** the biogas produced at the San Fernando wastewater treatment plant was used to convert it into methane and deliver it to the gas distribution system networks of Valle de Aburrá, operated by EPM. At the end of 2023, approximately 350,000 m^3 per month of renewable natural gas - biomethane - were injected, equivalent to the consumption of 29,000 homes.
- **Natural Gas Vehicle (NGV) program for Medellín cab drivers:** as promoters of sustainable mobility in the territory, and hand in hand with the agents of the natural gas chain, EPM designed a NGV promotion program so that Medellín cab drivers can have access to installation at no cost. During 2023, NGV systems were installed in more than 70 cabs, which, in addition to saving on fuel costs, reduced their polluting emissions.
- **Strengthening of energy distribution infrastructure:** two sections of the 110 kV underground line -Guayabal, Rodeo and Envigado Rodeo- were put into service.
- **Financing of ENSA Panama's investment plan:** in June 2023 a loan of USD 100 million was signed with IDB Invest and Scotiabank Panama, to finance the investment plan for electric power and other general corporate uses.
- **Energy generation in aqueduct networks:** the pilot project for energy generation in aqueduct networks began in two points of the system -the inlet pipeline to the El Dorado tank and the pressure regulating station in the La Estrella circuit-; with the purpose of testing turbo-generating equipment that leverages the speed, pressure and flow of drinking water for said energy generation, seeking to be self-sustainable and to deliver surpluses to the interconnected system's energy networks.
- **Increased production capacity of the Manantiales plant:** construction of the MOFLO (Operational Flexibility Module) which increased production capacity from 4.2 m^3/s to 5.2 m^3/s.
- **Strengthening of growth strategy in Chile:** migration of Hidrosur from an investment vehicle to an operating company for project execution. The signing of the contract and commencement of works on the Capellán Project, which will supply up to 255 l/s of treated wastewater for the copper mining industry, with investments of USD 37 million, are noteworthy.

- **Clean vehicle fleet for Emvarias:** the NGV contract with Emvarias was renewed until December 31, 2024. In addition, 50 new truck units were added to the replacement program, replacing 25 gas-powered vehicles and 25 diesel-powered vehicles that have reached the end of their useful life.

Climate change TCFD GB-02

In order to achieve a carbon neutral operation and contribute to the decarbonization of both the economic sectors in which Grupo EPM participates, as well as the territories where it is present, the Organization is committed to achieving resilient and carbon efficient businesses from its role as a public utilities provider.

For such purpose, it has outlined a climate change strategy that seeks, on the one hand, that the infrastructure, assets and investments for the provision of services have characteristics that allow it to guarantee access, continuity and quality during the occurrence of extreme weather events and climate variability phenomena; and on the other hand, that increasingly less GHG emissions are generated to a point of optimization in the generation, transmission and distribution of electricity, distribution of natural gas, supply of water and wastewater management, i.e., it seeks to optimize the carbon intensity of its operating processes.

The Organization understands that addressing climate change involves decarbonizing its businesses (within technical and economic feasibility), adapting productive activities and taking advantage of climate-related opportunities.

To this end, **a three-pronged climate change strategy has been developed:** GHG emissions management, resilient management, and water and biodiversity management. This strategy is materialized in an annual roadmap that not only seeks to mitigate emissions within the Entity's processes, but also aims at contributing to reduce emissions from the supply chain and with the introduction of low-emission offers to customers.

The Company's general manager, as well as the vice presidents, especially the business vice presidents, play a key role in the execution and monitoring of the climate change strategy, approving the actions to be implemented in the short and medium term to mitigate GHG emissions in operations, through the implementation of energy efficiency projects and initiatives, sustainable mobility that includes both natural gas and electric vehicles, expansion of renewable energies within the Organization's energy matrix, reduction of electricity and gas losses in transmission networks, a biomethane plant in wastewater management and hydrogen pilot tests, among others.

In 2021, the eighth business "marketing of new solutions" was created, which includes an offering of low-carbon solutions, with a portfolio currently under construction. One of these new solutions consists of offers of electricity generation from photovoltaic solar panels to large customers, households and small and medium-sized companies.

It should be noted that one of the indicators of the Balanced Scorecard of Grupo EPM is the Carbon Neutral Management Plan of Grupo EPM, which is monitored quarterly by Management. Generally, one of the milestones in this plan is the formulation and registration of GHG emission reduction projects in different carbon standards, as well as the verification of GHG emission reductions. These verified reduced emissions are converted into carbon credits that can be used for marketing to third parties or for offsetting the Company's own carbon footprint. EPM also has Renewable Energy Certificates or Certificates of Origin from certain power generation plants, which contribute to neutralize the GHG emissions of the final consumers of electricity taken from the National Interconnected System. These are financial opportunities arising from climate change.

After reviewing the job description manual, the following is a list of the Company's main departments with authority on matters related to climate change (which today coincide with the areas that have responsibilities in environmental management); however, there may be additional areas which products, activities or decisions have an impact on the management of this material issue in the Organization:

See Figure 1 | EPM's governance structure related to climate change:

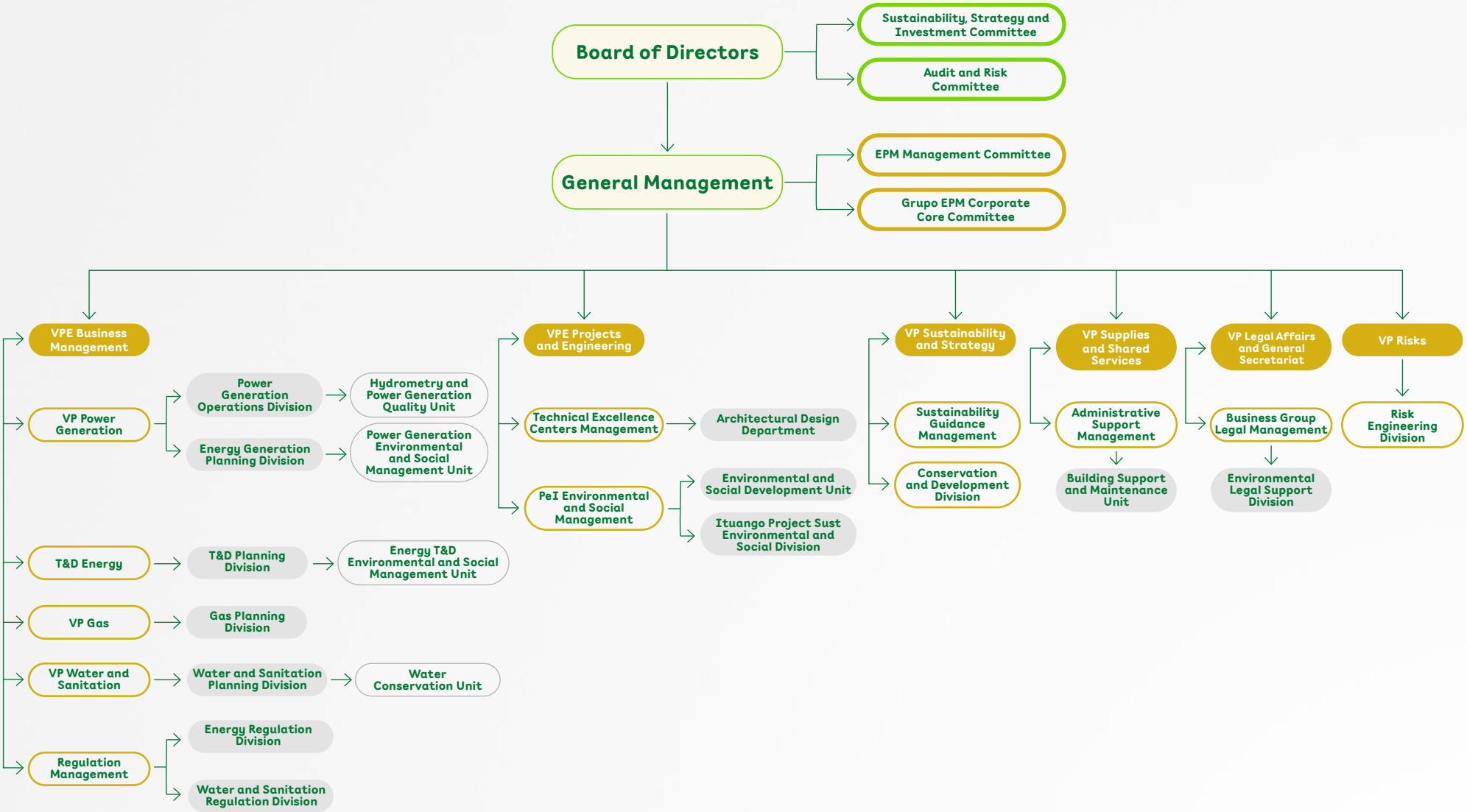


Figure 1 *EPM's governance structure related to climate change*

3.4.1. Senior management administration

GRI 2-12; TCFD GB-02

The **general manager** is in charge of the administration of EPM, its representation and the management of its business, and is empowered to enter into or execute, with no other limitations than those established in the bylaws, all acts included in its purpose or directly related to its existence or operation.

The **Management Committee** is composed of 14 members, including the general manager of EPM and first level vice presidents: New Business Innovation and Technology, Business Management, Projects and Engineering, Finance and Investment, Sustainability and Strategy, Legal Affairs, Supply and Shared Services, Employee Experience and Organizational Solutions, Communication and Corporate Relations, Risk, Corporate Audit and General Secretariat.

The purpose of this Committee is to articulate and control the Company's management through the analysis, definition, approval and follow-up of the matters within its competence, in order to achieve the strategic guidance, and from this perspective it follows up on ESG topics and indicators. These topics and indicators include those related to the reduction of GHG emissions and adaptation to climate change.

The Vice-Presidency of Sustainability and Strategy is responsible for leading these topics, since its basic function is to "Manage the formulation, development and evolution of the strategic guidance, planning, deployment and corporate and business follow-up through the Sustainability Model and its articulation with the competitive and support level".

The **Core Committee** is comprised of 9 members, including the General Manager and first level vice presidents; New Business Innovation and Technology, Business Management, Projects and Engineering, Finance and Investments, Sustainability and Strategy, Legal Affairs, Corporate Audit and General Secretariat, its objective is to establish the unity of purpose and direction of Grupo EPM, by analyzing, recommending and following up on matters related to the key missions and directives within its competence.

Among the key missions is the Strategic Leadership mission, which includes the Group's actions towards the generation of value, growth and sustainability, where the risk map is monitored, Group/Businesses considering the analysis from the ESG perspective, scarcity, impairment of water resources conditions or difficulty to access such resources for the provision of services or development of expansion projects. These topics are led by the Risk Vice-Presidency.

All topics related to climate change that are submitted to the Board of Directors must be brought in advance to the Management or Core Committee, as applicable to the management of EPM or the management of Grupo EPM, for the knowledge of the Committee members, where the general manager will recommend that the issue be submitted to the respective Board Committee (Sustainability, Strategy and Investment Committee) and subsequently be brought to the Board of Directors.

The matters related to climate change that are submitted to these committees (Management and/or Core), include the results of the annual estimate of the Greenhouse Gas (GHG) emissions inventory, the progress in Grupo EPM's Comprehensive Climate Change Management Plan, with emphasis on the mitigation component and specifically on the goal of achieving a carbon neutral operation, as well as the corresponding financial projections to assume the offsetting of the remaining emissions with carbon credits from proprietary or third-party projects.

When GHG emission reduction targets are formulated, they will also be submitted for approval. These committees also follow up on the risks identified in the Group's and EPM's Business Risk Matrix, which include risks related to climate change and energy transition. They also monitor the indicators of the Balanced Scorecard of Grupo EPM, one of which is the Carbon Neutral Management Plan of Grupo EPM.

Strategic committees

Strategic committees are the mechanisms that facilitate the interaction of senior management to make decisions and address relevant and strategic actions in an articulated and consistent manner.

The **composition of the strategic committees** and the number of meetings held during 2023 are shown below:

Meetings of strategic committees 2023

Engagement

Objective

Analyze and recommend on engagement matters associated with the acquisition process of goods and services, and contracts in which EPM acts as a contributor, according to the decree of delegations.

Composition

Chairman:

- V.P. Supplies and Shared Services

Secretary:

- Tactical Role: Head of Engagement Management Unit
- Strategic role: Director of Category Planning and Management

Members:

- General manager
- V.P. Supplies and Shared Services
- Vice President Legal Affairs
- Executive Vice President Business Management
- Executive Vice President Projects and Engineering

Permanent guests:

- Vice President Corporate Audit
- Administrative Manager
- Grupo EPM Services Manager
- Supply Chain Manager
- Engagement Legal Support Director
- Budget Directo

- **NOTE:** In the temporary or permanent absence of the Administrative Manager, the General Secretary shall attend.

Occasional guests:

- Engagement officer, according to decree of delegations
- The VP of the management area accompanied by the requisitioning officer
- **NOTE:** Committee members may delegate their participation on a temporary basis.

Topics

- Pre-contractual and contractual activities for the acquisition of goods and services which amount exceeds 5,000 SMLMV (current minimum legal monthly wage).
- Execution of contracts of undetermined amount.
- Substantial modifications to any contract within the Committee's competence.
- Signing of contracts, renewals and substantial modifications of strategic alliances for the ac-quisition of goods and services.
- Signing of MOUs (memorandums of understanding) for the acquisition of goods and services.
- Execution certificates with a value greater than 5000 SMLMV, derived from Master Agreements (Supply with Several Suppliers, Price Master Agreement, ADT).
- Request for non-binding offer with budget over 5000 SMLMV for the acquisition of B and S.
- Other contractual procedures corresponding to the Engagement Committee, according to the decree of delegations.
- **NOTE:** Although these are part of the Acquisition of Goods and Services process, the following items will not be submitted to the committee:
  - Contracts involving goods and assets with the capacity to generate cash flows on their own.
  - Contracts with regulatory origin, development, procedure or obligation.
  - Energy purchase processes where the procedure is detailed in the regulation.
  - Gas supply and transportation processes in which contract conditions and the times at which agents must carry out transactions are determined by regulation.

Management

Objective

Articulate and control the management of the Company by analyzing, defining, approving and monitoring the matters within its competence, in order to achieve the strategic guidance of EPM.

Composition

Chairman:

- General manager of EPM

Secretary:

- General secretary

This Management Committee assumes the functions of:

- Institutional Management and Performance Committee, at least once every three months; the secretary will be the VP Sustainability and Strategy.
- Institutional Internal Control Coordination Committee, at least once every six months; the secretary will be the VP Corporate Audit.
  Separate minutes should be prepared for the Institutional Management and Performance Committee and the Institutional Internal Control Coordination Committee.

Members:

- First level vice presidents

Permanent guests:

- Head of Corporate Governance Unit
- Administrative Manager

Topics

- Elements of strategic guidance and internal management and their implementation.
- Budget and its modifications.
- Analysis and definition of integrated planning guidelines.
- Administrative and position structure.
- Project guidelines and definition of strategic projects or topics with control milestones.
- Business Plan.
- Relationship with stakeholders.
- Topics for the Board of Directors and its committees.
- Management reports.
- Follow-up on the BSC, budget and other matters of the Business Plan, including the purchasing plan, investment plan and strategic projects.
- Archiving matters, follow-up of the operation of the Committee's definitions.
- Policies for EPM.
- Strategy and monitoring of comprehensive risk management.
- Organizational capabilities.
- Internal Audit.
- Reports from external insurance providers.
- Topics framed in the management focal points for the collective construction of the agenda.

Core

Objective

Establish the unity of purpose and direction of Grupo EPM, by analyzing, recommending and following up on matters related to key missions and directives within its competence.

Composition

Chairman:

- General Manager of EPM - Business Group Leader

Secretary:

- General secretary

Members:

- VP Sustainability and Strategy
- Executive VP Finance and Investments
- Executive VP Business Management
- Executive VP Projects and Engineering
- Executive VP New Business, Innovation and Technology.
- VP Legal Affairs

Participants in the role of permanent members on demand, according to the agenda of topics to be addressed based on their responsibilities.

- VP Communication and Corporate Relations
- VP Employee Experience and Organizational Solutions
- VP Supplies and Shared Services
- VP Corporate Audit
- VP Risks
- General secretary

Permanent guests:

- VP Corporate Audit
- Head of Corporate Governance Unit
- Administrative Manager

Occasional guests:

- Vice Presidents responsible for the topics to be addressed according to key missions.

Topics

- Group Strategic Guidance.
- Grupo EPM Governance System.
- Guidelines, directives and issues related to key missions: strategic leadership, capital, capabilities, control and identity.
- Follow-up on the implementation of guidelines, directives and key mission-related issues.
- Scope and structure of the corporate core, business and services.
- Definition of stakeholders, signs, objectives and internal leaders for relations within the Group.
- Strategic guidelines and framework for action regarding each of the corporate core vice presi-dencies.

Ethics

Objective

Promote and lead the implementation of ethical management, guiding the consolidation of public service in terms of efficiency, transparency, probity and service to the public by all public servants.

Composition

Chairman:

- VP Employee Experience and Organizational Solutions

Secretary:

- Employee Experience Leader

Members:

- VP Risks
- VP Communication and Corporate Relations
- VP Corporate Audit
- Head of Compliance Unit
- External member
- Member of the Board of Directors of EPM
- Servant elected by the General Manager

Permanent guests:

- Corporate Communications Manager
- Corporate Identity Manager
- Support Audit Manager

Permanent guests:

- As required by topic to be addressed

Topics

- Framework for action regarding ethical management.
- Initiatives, mechanisms and methodologies for ethical management.
- Ethical commitments.
- Analysis of dilemmas, reflections, ethical cases.

Comprehensive Risk Management

Objective

Advise and articulate the comprehensive management of risks and other disciplines of organizational resilience, through the analysis and follow-up of the associated topics, aligned with the objectives and strategic guidance of the EPM Business Group.

Composition

Chairman:

- Vice President of Risks

Secretary:

- Risk Engineering Director

Members:

- VPE Business Management
- VPE Projects and Engineering
- VPE Finance and Investments
- VPE New Business, Innovation and Technology
- VP Sustainability and Strategy
- VP Employee Experience and Organizational Solutions
- VP Communication and Corporate Relations

Permanent guests:

- Corporate Insurance Director
- Security Director
- Head of Compliance Unit
- Vice Presidents, Managers and/or directors as required by the topic to be addressed

Topics

- Comprehensive Risk Management Planning in the business group.
- Regulatory framework for Comprehensive Risk Management.
- Risks and opportunities at corporate management levels: Grupo EPM, business and specialized.
- Risk appetite, tolerance and capacity.
- Risk transfer and retention.
- Disaster risk management.
- Methodological and integration framework for digital security risk management and continuity of IT/OT services, security risks to people, assets and infrastructure, and occupational health and safety risks.
- Compliance risks (money laundering and terrorist financing, fraud, corruption, brib-ery/ transnational bribery and transparency; protection of personal data; free economic competition and regulatory non-compliance).
- Events and incidents with impact on objectives and strategic guidance
- Business continuity management for the business group.
- Cultural trait of Comprehensive Risk Management and other disciplines of organizational resilience in the business group.

3.4.2. General manager induction

GRI 2-17

During 2023, there were no changes in this position, so no induction was performed.

3.4.3. Evaluation of the general manager

Country Code 33.3 – ii. q); GRI 2-18

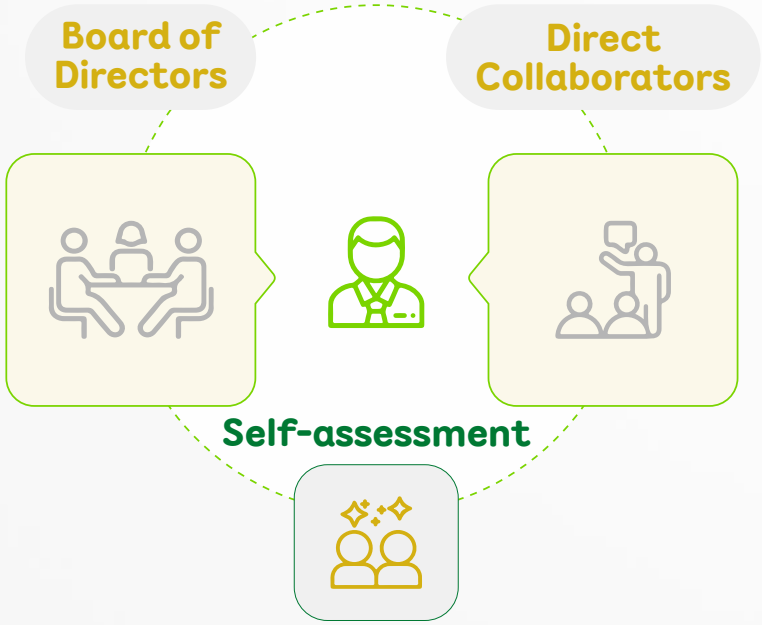
EPM's Board of Directors evaluates the general manager's activities, with the purpose of:

- Aligning expectations regarding the manager's performance based on qualitative (behavior and leadership) and quantitative results.
- Recognizing the evolution of competencies and actions for the achievement of objectives of the Company he leads.
- Identifying strengths and opportunities for improvement, in order to promote actions that en-hance leadership and the generation of business value.

The **2023 evaluation methodology** was modified in order to strengthen the qualitative component, and was conducted before the end of the year, considering the appointment of a new general manager by mayor-elect Federico Gutiérrez, as of January 1, 2024. Therefore, the evaluation of the manager for the 2023 period was developed with the following scope:

- Quantitative evaluation of the fulfillment of management goals (based on the Balanced Scorecard -BSC, and the manager's management report).
- Qualitative assessment based on key competencies related to strategic perspective, performance management, self-management, relationship management and competencies for public employees.
- Multi-source evaluation, i.e., the assessment from the perspective of the Board of Directors, the senior management team reporting directly to the manager and the manager's own self-assessment.

Feedback of results in a private session between the Board of Directors and the general manager.



The **evaluation of the general manager** of EPM is made every year in accordance with the provisions of section 4.7 of the Group's Corporate Governance Code, which establishes, among others, that the evaluation may "use the general manager's self-assessment, the evaluation by the Board of Directors and the evaluation by the first level management team; its results shall be disclosed in the public rendering of accounts and in the Corporate Governance Report".

The process of evaluating the management of EPM's general manager in 2023 formally began with the introduction of the methodology at the September meeting of the Management and Corporate Governance Committee. The agenda of the Board of Directors meeting held on December 19 included the topic of evaluation and the Board met privately with the general manager to deliver the results.

3.4.4. Senior Management Evaluation

GRI 2-18

The performance assessment of each first level executive reporting to the general manager of EPM was made in 2023, according to the following methodology:

- The Management Committee established performance agreements for each fiscal period, relat-ed to initiatives of the Business Plan, in which all or most of the first level vice presidents participate. For vice presidents and first level executives who are not responsible for any of these agreements, the general manager establishes performance agreements according to the challenges and planning of units.
- The management follow-up and improvement process monitors compliance with the mile-stones and deliverables of each performance agreement of the Management Committee. At the close of each period, this information is used as the basis for performance management and conversations to verify compliance with results and their scope.
- The Vice-Presidency of Employee Experience and Organizational Solutions provides the in-formation for the general manager to submit the consolidated report on the evaluations of members of senior management to the Management and Corporate Governance Committee of the Board of Directors, in order to comply with the recommendation of the Country Code, in section 24.5.
- On December 4, 2023, the Management Committee made the last follow-up on the cross-cutting agreements, which are the input for the general manager to assess the performance of people holding managerial positions before the end of his term of office.

3.4.5. Remuneration of senior management

Country Code 33.3 – ii. h)

As part of the Human Talent Management Policy, approved by the Board of Directors on December 7, 2010, the Human Talent and Organizational Development Vice-Presidency issued Guideline 100 on November 15, 2022, which determines the criteria related to variable compensation, fixed compensation and benefits for EPM employees. GRI 2-19, GRI 2-20.

The total remuneration of EPM's senior management in 2023 was as follows:

Remuneration of senior management of EPM

Facilitator	Title	Total, paid in 2023
General Management	General manager	$7,835,796,151,21
Executive Vice Presidencies	VPE New Business, Innovation and Technology	
	VPE Finance and Investments	
	VPE Business Management	
	VPE Projects and Engineering	
First-Level Vice-Presidencies	VP Strategy and Planning	
	VP Corporate Audit	
	VP Legal Affairs	
	VP Communication and Corporate Relations	
	VP Supplies and Shared Services	
	VP Human Talent and Organizational Develop-ment	
	General secretary	
	VP Risks	

Note

- *Payments include vacation, bonuses and benefits (including vehicle recognition).*
- *The vehicle recognition benefit does not apply to the general manager.*
- *The total amount paid corresponds to the position taking into account all persons who held the position as incumbent or on paid assignment during 2022.*
- *Severance payments are those paid directly to the employee or transferred in February 2023 to the Funds.*
- *Some significant values in the 2023 compensation correspond to:*
  - *In January 2023 the position of VPE Business Management was vacant and an Offi-cial Worker was commissioned.*
  - *The position of VP Strategy and Planning was held from 06-02-2023.*
  - *Paid vacations are not taken into account for those holding such positions under as-signment, since they are not paid with the salary of the assignment, but with the sala-ry of the incumbent position.*
- *Ratio of the semi-annual total compensation of the Organization's highest paid individual to the median of the semi-annual total compensation of all employees, excluding the highest paid individual: 8.21* GRI 2-21
- *Ratio of the percentage increase in the semi-annual total compensation of the Organization's highest paid individual to the median of the percentage increase in the semi-annual total compensation of all employees, excluding the highest paid individual: 1* GRI 2-21

‹ Back to content

Sustainability Report 2023

4. Related party transactions

Grupo·epm

4. Related party transactions

EPM and the companies comprising Grupo EPM have in place a Financial Policy, and Manual of Accounting Practices and Financial Information in accordance with the International Financial Reporting Standards-IFRS, guideline 2022-LINGG-92, corresponding to the Policy "Related Party Transactions", among other documents, and with the provisions of the "Technical Definitions of Financial Model and Technical-Financial Definitions", which includes, in item 1.8, the provisions concerning related parties. In addition, the "Governance Agreement" is in place to formalize relations between the Group companies. Additionally, EPM's Tax Department has defined the "Transfer Pricing Management Manual".

Details of the most relevant related party transactions are provided in the note "Related party disclosures" included in the financial statements. It should be noted that transactions between the companies of Grupo EPM are included yearly in this report under the heading "Governance Agreement".

Special report

The special report, with the existing economic relations between the controlling company, or its affiliates or subsidiaries with the respective controlled company, referred to in Article 29 of Law 222 of 1995, is included in the "Governance Agreement" section of this report, which provides a general context of the minutes signed between the companies of Grupo EPM as part of the Governance Agreement and highlights those of greater importance.

4.1. Conflicts of interest

Country Code 21.4 33.3-iii. c); GRI 2-15

Schedule No. 6 of the Corporate Governance Code, "Manual on Conflicts of Interest and Treatment of Group Decisions", as amended by Decree No. 675 dated September 22, 2022, provides the necessary information and procedures that allow directors and employees of Grupo EPM to know, prevent and adequately and timely manage conflicts of interest that may arise in the exercise of their duties, as a complement to the regulations applicable to public servants in disciplinary matters and Law 1437 of 2011. Country Code 21.4 33.3-iii. d); GRI 2-15

Likewise, and in view of the dynamics of Grupo EPM, the Manual regulates the differences that may arise between the parent company of Grupo EPM and the subordinate companies with respect to the interest of the business group. The procedure follows the Governance Agreement entered into between the companies of Grupo EPM, the agreements between the shareholders and the governance model defined for each of the subordinate companies.

It also indicates the actions that correspond in each case to the subordinate company's Board of Directors, the Parent Company's Management Committee and the Board of Directors with its respective committees. Country Code 21.4 33.3-iii. a)

In compliance with section 10 of the Manual, which states "Conflicts of interest that arise and oblige the director to refrain from participating in the discussion of a specific matter shall be published annually in the Corporate Governance Report", it is informed that: GRI 2-15

In 2023, conflicts of interest were disclosed by two of the members of EPM's Board of Directors and there were no conflicts of interest by EPM's directors, according to the definition of directors established in the "Manual of conflicts of interest and treatment of decisions in the interest of Grupo EPM"

The following are the **conflicts of interest disclosed by the members of the Board of Directors and the senior management team of EPM:**

No.	Date	Minutes #	Description of conflict	Date of report to Compliance Unit
1	27/03/23 19/05/23 29/05/23 5/06/23 2/08/23 14/08/23 16 and 28 /08/23 12/09/23 14/09/23 4/10/23 9,10 and 11/10/23	1756 1759 1761 1764 1765 1766 1767 1769 1771 1773 1774	Sergio Andrés Restrepo Muñoz is a member of the Board of Directors of TIGO-UNE. He stated that he would refrain from participating in the discussion and decision on the Titan Project, since this is a decision of EPM in relation to the interest in that Company.	21-jun-21
2	27/03/23 19/05/23 29/05/23 5/06/23 2/08/23 14/08/23 16 and 28 /08/23 12/09/23 14/09/23 4/10/23 9,10 and 11/10/23	1756 1759 1761 1764 1765 1766 1767 1769 1771 1773 1774	Eréz Bastiaan Ernest Zaionce refrained from participating in the analysis, deliberations and decisions related to the Titan Project (TIGO.UNE) that were submitted to the Board of Directors of EPM, since he was a member of the Board of Directors of TIGO-UNE.	

During 2023, there were three actual conflicts of interest in the Colombian subsidiaries. Two conflicts of interest arose in the international subsidiaries.

The following are the **conflicts of interest in the national and international subsidiaries of Grupo EPM:**

No.	Administrator	Date	Minutes #	Description of conflict
1	Emmanuel Cáceres de Kerchove	23/06/2023	285	The member of the Board of Directors of Aguas Nacionales informs that he cannot know the information related to the Barracuda project, since he is an advisor to the District of Barranquilla and the company k-yena, which are parties within the Barracuda Project process. Therefore, he withdraws from the session.

No.	Administrator	Date	Minutes #	Description of conflict
2	Luisa María Pérez Fernández	20/12/2023	296	The member of the Board of Direc-tors of Aguas Nacionales, dissociates herself from the decision related to the AMB of Inspection - Transaction Minutes with EPM, which purpose is to follow up on work contracts exe-cuted by the Vice-Presidency of Wa-ter and Sanitation of EPM, in which, in exercise of the position she holds, she is aware of and makes decisions associated therewith.
3	Andres Moreno Múnera	27/09/2023 24/10/2023	176 179	The member of the Board of Directors of Emvarias, temporarily withdraws from the session while the topic related to the Vaso La Piñuela Project is being discussed, taking into account that he declared a potential conflict of interest with Interaseo, which is a proponent in this contractual process, company in which he was manager five years ago.
4	Daniel Arango Ángel	22/11/2023	217	The member of EEGSA, Daniel Arango, stated that he has a potential conflict of interest in relation to the authorization to begin taking out a loan from DECA II to provide resources to PDG, given his current role as legal representative thereof, for this reason, he temporarily withdrew from the meeting room to refrain from discussing and resolving this point.
5	Daniel Arango Ángel	29/12/2023	218	The member of EEGSA stated that he has a potential conflict of interest in relation to the signing of a loan with Banrural, S.A. to constitute an intercompany debt in favor of the company Panamá Distribution Group, S.A. (PDG), given his current role as legal representative thereof.

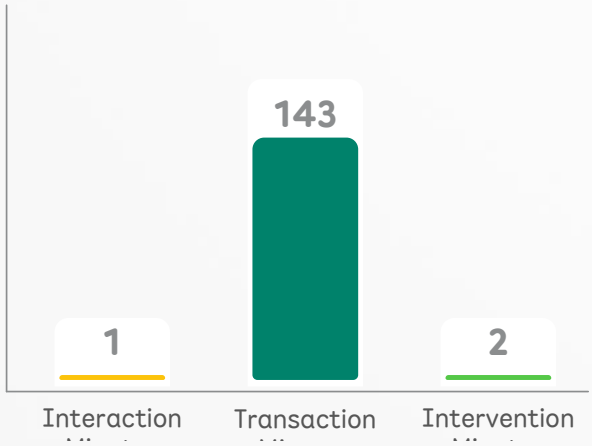
4.2. Governance Agreement

Country Code 33.3 iii. b)

The Governance Agreement is a document that enables, defines and formally agrees the relationships between the companies comprising Grupo EPM.

It has made it possible to sign different agreements that facilitate the achievement of business objectives and the attainment of synergies for the business group, in line with the unity of purpose and direction. During 2023, 146 minutes were signed, 1 interaction minutes, 143 transaction minutes and 2 intervention minutes.

Number of minutes signed in 2023

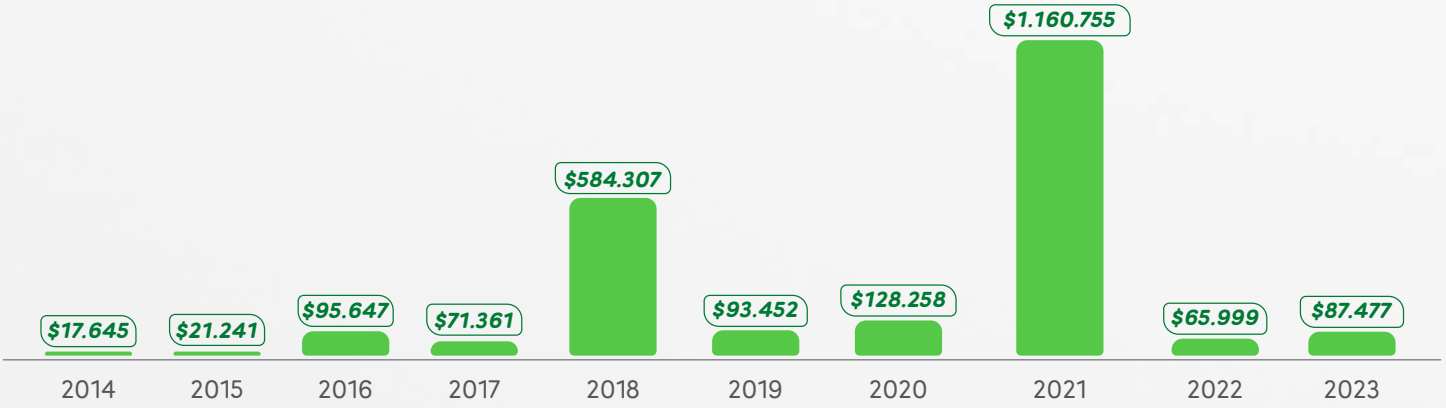


General report on minutes signed under the Governance Agreement:

Transaction relationships are those established between the parties for the purpose of supplying goods and services to each other (not corresponding to the provision of residential public utilities), in order to amplify competitive advantages, as in the case of shared infrastructure and support, technical and commercial services, among others.

The following is the history of transaction minutes:

Transaction minutes (Amounts in millions of pesos)



Regarding the historical information reported in 2023, the values were updated due to the fact that some minutes had modifications, which are explained below:

In 2019, a decrease of COP 2,166 million was reflected (from COP 95,618 million to COP 93,452 million), due to the following causes:

Minutes CT-2013-002297-A495 signed between EPM and Ticsa, for the construction of the outlet structures associated with the Modernization Project of the drinking water production plant La Ayurá, showed a decrease from COP 65,019 million to COP 6,853 million.

In 2020, there was an increase of COP 8,456 million (from COP 119,802 million to COP 128,258 million), due to the following variations:

Minutes CT-2013-002297-A602 signed between EPM and Aguas Nacionales, with the purpose of providing technical, environmental, social and administrative inspection services to the contracts for diagnosis, design, construction and replacement of water and sewerage networks, connections and accessory works, showed an increase from COP 18,429 million to COP 21,681 million.

Minutes CT-2013-002297-A613 signed between EPM and Ticsa, with the purpose of providing the design, supply, construction, assembly, commissioning and start-up of an operational flexibility module - MOFLO - with a capacity of 0.83 m^3/s average daily flow (Qmd) and 1.0 m^3/s maximum daily flow (QMD) for the Manantiales drinking water production plant, showed an increase from COP 54,204 million to COP 59,325 million.

Minutes CT-2013-002297-A615 signed between EPM and Emvarias, with the purpose of establishing the administrative and legal conditions based on which the parties agree to provide the service of administration of the client's liquidity and others, showed a reduction from COP 56 million to COP 45 million.

Minutes CT-2013-002297-A625 signed between EPM and Emvarias, whereby the supplier provides the client with the financial services agreed by the parties, resulting from the corresponding analysis, in the different phases of the Shared Services Center Project, in accordance with the guidelines given by the Corporate Core to Grupo EPM Services, showed an increase from COP 152 million to COP 169 million.

Minutes CT-2013-002297-A627 signed between EPM and Emvarias, whereby Emvarias provides the collection, transportation, storage, use and/or valuation (including recovery, recycling or regeneration), treatment and/or final disposal of hazardous and special waste generated at EPM; within the comprehensive management and complying with the requirements of the current regulations as well as the support, training, advice and accompaniment to EPM, showed an increase from COP 509 million to COP 719 million.

In 2021, there was an increase of COP 8,070 million (from COP 1,152,685 million to COP 1,160,755 million), due to the following variations:

The renewal of minutes CT-2013-002297-A505-R2 signed between EPM and Aguas Nacionales, with the purpose of establishing the administrative, technical and legal conditions based on which the parties agree that the contractor will provide the client with information technology, communications and IT information systems solutions services, showed an increase from COP 857 million to COP 1,002 million.

The renewal of minutes CT-2013-002297-A544-R1 signed between EPM and ENSA, whereby EMP provides the architectural design and supervision services, as well as the support, advice and accompaniment required for ENSA, showed an increase from COP 173 million to COP 495 million.

Minutes CT-2013-002297-A640 signed between EPM and Afinia, whereby the supplier provides the client with the selection service with human talent, taking into account the position profiles defined to meet the needs of the business group, showed an increase from COP 470 million to COP 560 million.

Minutes CT-2013-002297-A651 signed between EPM and Ticsa, with the purpose of providing the design, supply, transportation, installation and testing of a biogas utilization plant for the injection of biomethane to EPM's natural gas networks and other works and related activities, showed an increase from COP 13,701 million to COP 16,603 million.

Minutes CT-2013-002297-A671 signed between EPM and Afinia, with the purpose of establishing the administrative and legal conditions based on which EPM and Afinia agree to provide services associated with the Scada systems and business applications, telecommunications, station automation for the implementation and operation of the technological platform of Afinia's control center, showed an increase from COP 791 million to COP 1,091 million.

Minutes CT-2013-002297-A673 signed between EPM and Aguas de Oriente, with the purpose of establishing the conditions for the interconnection to the wastewater treatment and final disposal systems owned by the supplier, for the provision of the public sewage service to the users of the municipality of El Retiro, by the beneficiary, showed an increase from COP 2,854 million to COP 3,623 million.

Minutes CT-2013-002297-A679 signed between EPM and Aguas Nacionales, whereby the supplier provides the client with financial services for the processes of accounts payable management, cash flow management and accounting management, showed an increase from COP 237 million to COP 280 million.

Minutes CT-2013-002297-A680 signed between EPM and Afinia, with the purpose of providing the technology services agreed by the parties, within the area of Information Technology - IT - and Office Automation Services Desk, showed an increase from COP 81 million to COP 109 million.

Minutes CT-2013-002297-A694 signed between EPM and ESSA, whereby ESSA provides operation and maintenance - OM - services of equipment, lines and facilities owned by EPM that were developed with the purpose of rendering service to the Magdalena Medio Regional Office of Ecopetrol and that are remunerated through contract MA-0021450, showed an increase from COP 726 million to COP 748 million.

Minutes CT-2013-002297-A698 signed between EPM and Emvarias, with the purpose of establishing the economic, legal and administrative conditions for the contractor to provide the client with the cleaning, collection, transportation and final disposal of waste generated in the supplying and receiving basins that are part of EPM's aqueduct and sewerage system, showed an increase from COP 750 million to COP 785 million.

Minutes CT-2013-002297-A700 signed between EPM and Fundación EPM, whereby Fundación EPM provides EPM with the services for the development and execution of education, relationship, social and environmental management activities in the territories where EPM is present, showed an increase from COP 12,010 million to COP 15,292 million.

Minutes CT-2013-002297-A706 signed between EPM and Aguas Nacionales, whereby the supplier provides payroll processing services, social benefits, contributions to the comprehensive social security system, parafiscal contributions, as well as support, training, advice and permanent accompaniment to the client, in all matters related to the activities and information systems required to guarantee that they are correctly executed in a timely and reliable manner, showed an increase from COP 74 million to COP 85 million.

Minutes CT-2013-002297-A707 signed between EPM and Aguas Regionales, whereby the contractor provides basic information technology, operation and support of IT solutions to the client, showed an increase from COP 628 million to COP 718 million.

Minutes CT-2013-002297-A712 signed between EPM and Fundación EPM, with the purpose of implementing environmental education programs and contributing to the development in the territories of influence of EPM's projects, showed an increase from COP 785 million to COP 899 million.

Minutes CT-2013-002297-A715 signed between EPM and CHEC, whereby EPM (Credit and Portfolio Management Unit) provides services related to risk activities and customer profiling, as well as support, training, advice and accompaniment to the subsidiary CHEC, showed a reduction from COP 224 million to COP 141 million.

In 2022, there is an increase of COP 1,706 million (from COP 64,293 million to COP 65,999 million), due to the following variations:

- **The renewal of minutes CT-2013-002297-A406-R4** signed between EPM and Promobiliaria, in order to determine the framework within which EPM will execute, as agent without representation, all the activities necessary for the operation and fulfillment of the obligations required by the principal; this representation includes, but is not limited to, all the activities required in the planning, negotiation and execution stages of the real estate projects carried out by the principal in compliance with its corporate purpose, such as the preparation of studies and designs, engagement, legal advice, financial advice, real estate advice, architectural and design advice and other activities necessary for the adequate and correct execution and start-up of projects under the responsibility of the principal, showed an increase from COP 429 million to COP 519 million.

- **The renewal of minutes CT-2013-002297-A634-R1** signed between EPM and Aguas de Malambo, whereby the supplier provides the client with all the financial services agreed by the parties, result from the corresponding analysis, in the different phases of the Shared Services Center Project, in accordance with the guidelines issued by the Corporate Core, showed an increase from COP 99 million to COP 122 million.

- **The renewal of minutes CT-2013-002297-A662-R1** signed between EPM and CENS, with the purpose of establishing the administrative, technical and legal conditions based on which the Parties agree that the CONTRACTOR will provide the CLIENT with implementation, operation and support services for information systems solutions, showed an increase from COP 1,389 million to COP 1,610 million.

The renewal of minutes CT-2013-002297-A714-R1 signed between EPM and Aguas de Oriente, whereby EPM provides services related to the processes of customer service, billing, accounts receivable and portfolio management, as well as support, training, advice and accompaniment associated with these services, which are required by Aguas del Oriente for the provision of residential public utilities of water and sewage in the municipalities where the client develops its activities, showed an increase from COP 283 million to COP 324 million.

Minutes CT-2013-002297-A745 signed between EPM and Aguas Regionales, with the purpose of providing services related to the processes defined at EPM for: tax management, cash flow management, accounts payable management, financing management and other activities related to the exchange regime, negotiation of bank guarantees, negotiation of trusts, among others, by the Accounting and Financial Services Management of EPM to the customers, showed an increase from COP 545 million to COP 706 million.

Minutes CT-2013-002297-A757 signed between EPM and Aguas Regionales, whereby EPM provides services related to the billing processes, portfolio management, as well as the calibration and verification of water meters, support, training, advice and accompaniment associated with these services, which are required by "Aguas Regionales" for the provision of residential public utilities of aqueduct and sewerage and corporate services in the municipalities where the client develops its activities, showed an increase from COP 3,364 million to COP 3,723 million.

Minutes CT-2013-002297-A773 signed between EPM and Aguas del Oriente, whereby EPM provides Aguas del Oriente with the cleaning of sewerage networks, diagnosis of networks with closed circuit television in different diameters and inspection with post camera, to strengthen the public sewerage service, which Aguas del Oriente provides in the municipality of El Retiro, Department of Antioquia, showed an increase from COP 23 million to COP 35 million.

The renewal of minutes CT-2013-002297-A656-R2 signed between EPM and ESSA, whereby ESSA provides administration, operation and maintenance -AOM- services at the Yondó substation, with a value of COP 155 million, had not been reported during 2022.

The renewal of minutes CT-2013-002297-A694-R1 signed between EPM and ESSA, whereby ESSA provides operation and maintenance -OM- services of equipment, lines and facilities owned by EPM that were developed with the purpose of providing service to the Magdalena Medio Regional Office of ECOPETROL and that are remunerated through contract MA- 0021450, with a value of COP 866 million, had not been reported during 2022.

In addition, of the 143 transaction minutes signed in 2023, the following stand out:

Minutes CT-2013-002297-A788 between EPM and Emvarias to establish the administrative, technical and legal conditions based on which the parties agree that the contractor will provide the client with information technology and communications services, for COP 3,361 million.

Minutes CT-2013-002297-A808 between EPM and Afinia to establish the administrative, technical and legal conditions based on which the parties agree that the contractor will provide the services associated with Grupo EPM's Cybersecurity Operation Center to the client, for COP 1,883 million.

Minutes CT-2013-002297-A801 between EPM and Afinia, whereby the supplier provides the client with the selection or other services associated with the activities carried out therein, within the framework of the human talent management needs for COP 1,318 million.

Minutes CT-2013-002297-A804 between EPM and Afinia, whereby EPM rents the Christmas Lighting kits for Afinia, for COP 1,454 million.

The renewal of minutes CT-2013-002297-A757-R1 between EPM and Aguas Regionales, whereby EPM provides services related to billing processes, portfolio management, as well as calibration and verification of water meters, support, training, advice and accompaniment associated with these services, which are required by Aguas Regionales for the provision of residential public utilities of water and sewerage and corporate services in the municipalities where the client develops its activities, for COP 3,914 million.

Minutes CT-2013-002297-A821 between EPM and Afinia to establish the administrative, technical and legal conditions based on which the parties agree that the contractor will provide the client with information technology services, for COP 3,277 million.

The renewal of minutes CT-2013-002297-A755-R1 between EPM and Aguas Regionales, whereby EPM provides services related to the customer service process, as well as support, training, advice and accompaniment associated therewith, which are required by Aguas Regionales for the provision of residential public utilities of water and sewerage in the municipalities where the client develops its activities, for COP 2,150 million.

- **Minutes 01-CT-2013-002297-CW264230** between EPM and Fundación EPM, whereby Fundación EPM provides technical and administrative services in the performance of social management activities for the construction, operation and marketing stages of the infrastructure of the T&D energy business of EPM, for COP 3,358 million.

- **Minutes 01-CT-2013-002297-CW287240** between EPM and ESSA, for the implementation of an optimal planning methodology for the T&D networks of the subsidiary ESSA SA ESP, for COP 1,907 million.

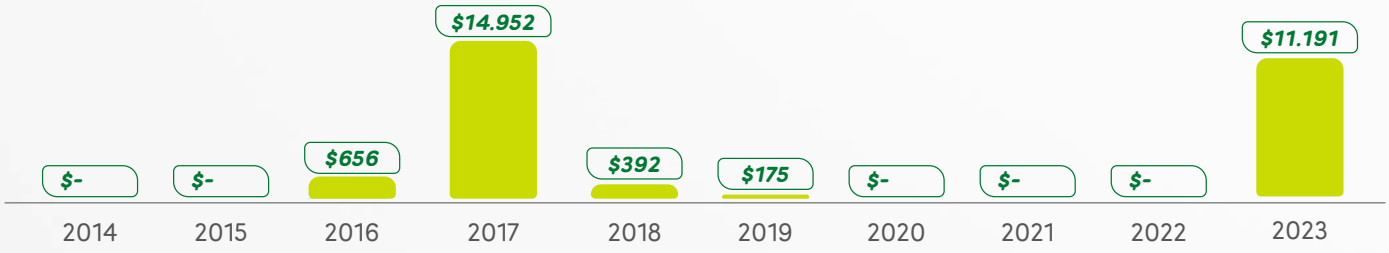
- **Minutes 01-CT-2013-002297-CW274589** between EPM and Ticsa, for the restoration of the eastern interceptor of the Medellín River and the complementary works required for its operational improvement, include the supply of the necessary materials for such restoration, for COP 22,158 million.

- **Minutes 01-CT-2013-002297-CW271136** between EPM and CHEC to establish the administrative, technical and legal conditions based on which the parties agree that the contractor will provide the client with implementation, maintenance, operation and support services for information system solutions, for COP 2,305 million.

- **Minutes 01-CT-2013-002297-CW263034** between EPM and CENS to establish the administrative, technical and legal conditions based on which the parties agree that the contractor will provide the client with implementation, operation and support services for administrative information systems solutions that support its strategic and support processes, for COP 1,808 million.

Intervention relationships are those established between EPM and other parties to execute a directive of the Corporate Core that implies a certain transaction for the supply of goods and services between a company of Grupo EPM and a third party, derived from control and good governance actions such as, for example, contracts for the statutory audit and information systems required by the Corporate Core for all the companies of Grupo EPM, among others.

Intervention minutes (Amounts in millions of pesos)



In 2023, there was an increase of COP 6,728 million (from COP 8,224 million to COP 1,952 million), due to the following variations:

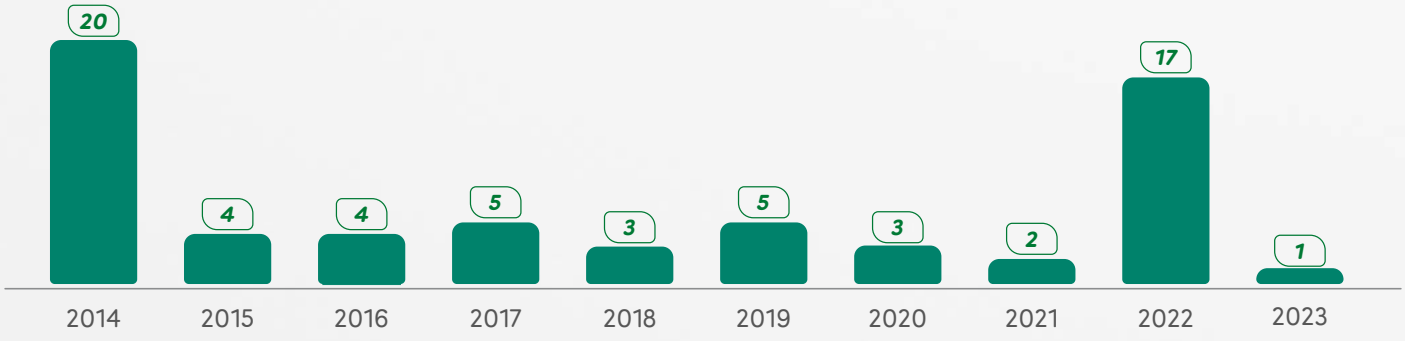
- **El acta de intervención CT-2013-002297-A393** signed between EPM and Aguas de Malambo, with the purpose of implementing and standardizing, from EPM, the commercial processes in the subsidiary, contemplating both the migration of customers to the commercial applications and the operation and/or accompaniment of EPM in the processes of sales, customer service, facilities management, billing, portfolio management and collection, loyalty, offers, loss management and commercial work orders, showed the following modifications which had not been reported in previous years:
  - In 2020, the minutes were amended by increasing their value by COP 3,338 million.
  - In 2022, the minutes were amended by increasing their value by COP 1,869 million.
  - In 2023, the minutes were amended by increasing their value by COP 1,165 million.

In 2023, the following minutes were signed:

El acta CT-2013-002297-A794 signed between EPM and Aguas Nacionales, and **Minutes CT-2013-002297-A797** signed between EPM and Afinia, in order to establish the administrative, technical, financial and legal conditions based on which the parties agree that EPM, on its own behalf (Manager) and on behalf of the parties (Requestor), should develop the required steps (negotiation, acceptance, settlement, technical management and administrative management) arising from the contracts to be signed with the suppliers selected by EPM to acquire, implement and put into operation the SAP S/4 HANA solution, covering Grupo EPM, and the quality assurance management, to guarantee the scope and purpose of the New ERP Project in all subsidiaries, which supports the financial macro-processes, supply of goods and services and maintenance of assets, and allows for optimizing processes, adopting best industry practices and leveraging digital transformation and the development of new capabilities, with values of COP 1,877 million and COP 9,314 million, respectively.

Interaction relationships arise in order to enable the unity of purpose and direction of the Group and allow, among others, for optimizing processes and adopting integrated procedures defined by the Corporate Core for the benefit of the business group.

Interaction minutes (Amount in quantity)



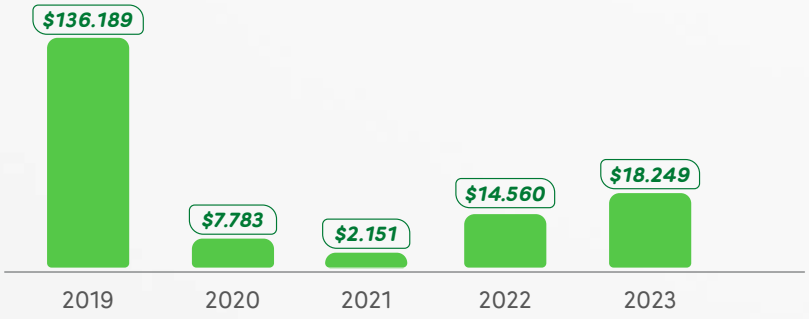
In 2023, the interaction minutes signed were:

All companies in the Grupo EPM

Minutes 01-CT-2013-002297-CW282405 signed between EPM and all the companies of Grupo EPM, with the purpose of enabling the interaction between EPM, in its role as parent company of Grupo EPM (Corporate Core or body acting as such), and the companies of Grupo EPM, for the adoption and application of guidelines that enable the achievement of common objectives under the criteria of unity of purpose and direction, pursuant to Law 222 of 1995, and defining the procedure for their approval, implementation and follow-up.

The following is a **summary of the transaction minutes entered into between companies of Grupo EPM,** in which EPM is not a party involved:

Transaction minutes between companies of Grupo EPM (Amounts in millions of pesos)



During 2023, 29 transaction minutes were signed for COP 18,249 million, among which the following stand out:

aguas nacionales
Fundación EPM

The minutes signed between **Aguas Nacionales** and **Fundación EPM**, for the "Provision of services for the design and execution of educational, environmental, cultural and social programs under the guidelines of Aguas Nacionales EPM", for COP 1,280 million.

- The minutes signed between **ESSA** and **CENS**, for the "Provision of administration services of application servers and databases of the SAC commercial suite, in its production and testing environments to Centrales Eléctricas del Norte de Santander S.A. E.S.P.", for COP $473 million, with a modification in value for COP 271 million.

- The minutes signed between **ESSA** and **EDEQ**, for the "Provision of administration services of application servers and databases of the SAC commercial suite, in its production, testing and development environments to Company de Energía del Quindío S.A. E.S.P.", for COP 145 million.

- The minutes signed between **ESSA** and **CHEC**, for the "Provision of administration services for application and database servers of the SAC commercial suite, in its production and testing environments", for COP 370 million.

In addition, in 2023, **20 minutes were signed between international** subsidiaries, of which the following are noteworthy:

- The minutes signed between **Trelec** and **Eegsa**, for the "Provision of corporate services", in the amount of COP 1,790 million.

- The minutes signed between **Delsur** and **ENSA** Servicios, for the "Provision of Functional/Technical Support Services and Maintenance of the SAP Commercial System implemented at Delsur", for COP 4,089 million.

- The minutes signed between **ENSA** and **ENSA Servicios**, for the "Provision of functional and technical support services and maintenance of the SAP system", for COP 2,312 million.

- The minutes signed between **Hidroecológica del Teribe** and **ENSA** for the "Provision of various administrative services: business management and legal representation - accounting, financial and payroll service - commercial and electricity market management service - risk management service: analysis and formulation of matrices, monitoring and comprehensive risk management based on Grupo EPM's methodology and management of the Business Continuity Plan. - legal advice (monthly fee). - IT services (Changuinola) - IT services (licensed software): - purchase management service", for COP 889 million.

- The minutes signed between **ENSA** and **ENSA** Servicios, for the "Management agreement that will allow administrative services to be provided by ENSA, in favor of ENSA Servicios", for COP 1,265 million.

- The minutes signed between **Ticsa** and **ENSA Servicios**, for the "Provision of ManageEngine Service Desk Plus (SDP) consulting services, for the implementation and support of the application guaranteeing an efficient operation and development of the Technology Department of the company Ticsa, through an orderly management of information technology (IT) processes, supported under the best practices of the ITIL methodology", for COP 320 million.

Back to content

Sustainability Report 2023

5. Ownership structure of Grupo EPM

Grupo·epm

5. Ownership structure of Grupo EPM

Grupo EPM, which parent company is EPM, is a multi-Latin business group, which, as of December 31, 2023, was comprised of 48 companies, including affiliates and subsidiaries, with presence in Mexico, Guatemala, El Salvador, Panama, Chile and Colombia, which develop their activities in eight businesses declared in its strategic guidance: generation and marketing of energy, energy transmission, distribution and marketing of energy, distribution and marketing of gas, provision and marketing of water, management and marketing of wastewater, management and marketing of solid waste and marketing of new solutions (business under structuring).

At the end of 2023, Grupo EPM's revenues amounted to COP 37,537,000,000,000.

5.1. Grupo EPM's capital and ownership structure

Country Code 33.3 – i. a)

In 2023, the following **developments occurred in the ownership structure of Grupo EPM:**

- The equity interest in Aguas de Malambo S.A. E.S.P. was modified and EPM remained with a 98.31% interest and EPM Inversiones S.A. with a 0.42% interest.
- The company EPM Renovables S.A. was incorporated in Panama, in which EPM has a 100% equity interest.
- The company Somos Servicios Integrados S.A. was incorporated in Panama, in which the subsidiary Panamá Distribution Group S.A. (PDG) has a 100% equity interest.
- The equity interest of EPM Capital México S.A. de C.V. was modified as follows:

Shareholder	Equity interest
EPM - Empresas Públicas de Medellín E.S.P.	48.98 %
EPM Inversiones S.A.	3.55 %
EPM Latam S.A.	33.70 %
PDG - Panama Distribution Group S. A	13.77 %

- The equity interest of Caribemar de la Costa S.A.S. ESP (Afinia) was modified as follows:

Shareholder	Current equity interest
EPM - Empresas Públicas de Medellín E.S.P.	87.44 %
EPM Latam S.A.	12.56 %

The ownership structure of Grupo EPM can be consulted in Schedule 4 | Shareholding structure of Grupo EPM of this report.

5.1.1. Growth of Grupo EPM

As part of the measures implemented by EPM to guarantee the continuity and benefits of the Somos program to customers and users, on September 1, 2023, Somos Servicios Integrados S.A. was created as a corporation *(sociedad anónima)* domiciled in Panama, and on September 26, 2023, the branch of this company was established in Colombia.

In addition, the companies EPM Renovables S.A. and EPM Renovables Internacional S.A., domiciled in Panama, were created as part of the corporate group's growth strategy in the non-conventional renewable energy business.

EPM Renovables was established as an investment vehicle to facilitate the growth of the business, while the purpose of EPM Renovables Internacional, incorporated on August 16, 2023, is to function as an operating company. This company is 100% owned by EPM Renovables.

In 2023, with the creation of these three companies, Grupo EPM was comprised of a total of 48 companies.

In 2023, with the creation of these three companies, Grupo EPM was comprised of a total of 48 companies. The main challenge for 2024 is to adapt the corporate governance practices and model of the companies to the Group's governance system.

5.1.2. Grupo EPM shareholders' agreements

Country Code 33.3 i. f)

The following are the shareholders' agreements entered into by EPM, effective as of December 31, 2023.

Company	Parties involved	Execution date	Summary
une	▶ EPM ▶ Millicom Spain S.L. (and other companies of Grupo Millicom) ▶ Institute of Sports and Recreation of Medellín (Inder)	October 1, 2013	Relationship and commitments between shareholders. Establishes the special majorities of the Shareholders' Meeting and the Board.
aguas regionales*	▶ EPM ▶ Governor's Office of Antioquia ▶ Municipality of Apartadó ▶ Municipality of Chigorodó ▶ Municipality of Mutatá ▶ Municipality of Turbo ▶ Municipality of Carepa ▶ EPM ▶ Governor's Office of Antioquia ▶ Municipality of Santa Fe de Antioquia ▶ Municipality of Sopetrán ▶ Municipality of San Jerónimo ▶ Municipality of Olaya	December 1, 2006 December 19, 2007	Conditions and framework for their participation as shareholders, taking into account the background and special considerations for the management and development of the regional aqueduct that constitutes the purpose of the company.
	▶ EPM ▶ Governor's Office of Antioquia	December 2006 and December 27, 2007	Ensures that decisions in the company are made by a plurality vote of EPM and the Governor's Office of Antioquia.
Aguas de Malambo	▶ EPM ▶ Municipality of Malambo ▶ Community Action Boards of Malambo ▶ Municipal Sports Institute ▶ Malambo Hospital ▶ Institute of Culture of Malambo	June 29, 2011	Conditions and framework for their participation as shareholders, taking into account the background and special considerations for the management and development of the regional aqueduct that constitutes the purpose of this company.
HIDROECOLÓGICA DEL TERIBE, S.A.	▶ EPM ▶ Administradora Serviagro S.A. ▶ Consultores Asociados de Ingeniería S.A. ▶ MacEnergy (Cayman) Ltda.	November 6, 2003	Determine the basic conditions that will govern their relations within the Company, as well as the establishment of the agreements required to exercise and fulfill their rights and obligations to achieve the complete execution of the project.

**After the merger of Aguas de Urabá S.A. E.S.P. and Regional Occidente S.A. E.S.P. in 2015, the shareholders' agreements existing in each of the merged companies are maintained.*

5.1.3. Shareholders' meetings and partner relations

During 2023, regular shareholders' meetings of all the companies of Grupo EPM were held. The Board of Directors' and Management's reports, as well as the year-end financial results, were submitted and the Board of Directors was appointed for the period from March 2023 to March 2024. These meetings are par excellence the meeting place for the different partners of the business group.

In order to strengthen trust with partners, the companies of Grupo EPM undertake to keep up to date, on each company's website, the section enabled for servicing this stakeholder. This strengthens transparency, access to information and communication channels. **Country Code 33.3 – v. b) c)**

The relations plan defined for the Partners stakeholder included actions aimed, on the one hand, at strengthening trust based on strict compliance with rights and commitments in the area of transparency and access to information, and, on the other hand, at strengthening governance instruments to achieve this purpose. By the end of period 2023, all the actions proposed in the plan had been completed.

The relevant actions carried out are as follows:

- Feasibility assessment to define alternative mechanisms for conflict resolution among Grupo EPM's governing bodies.
- Review of Grupo EPM Governance System.
- Updating and approval of bylaws of subsidiaries in Colombia, regarding the Board of Directors and general manager.

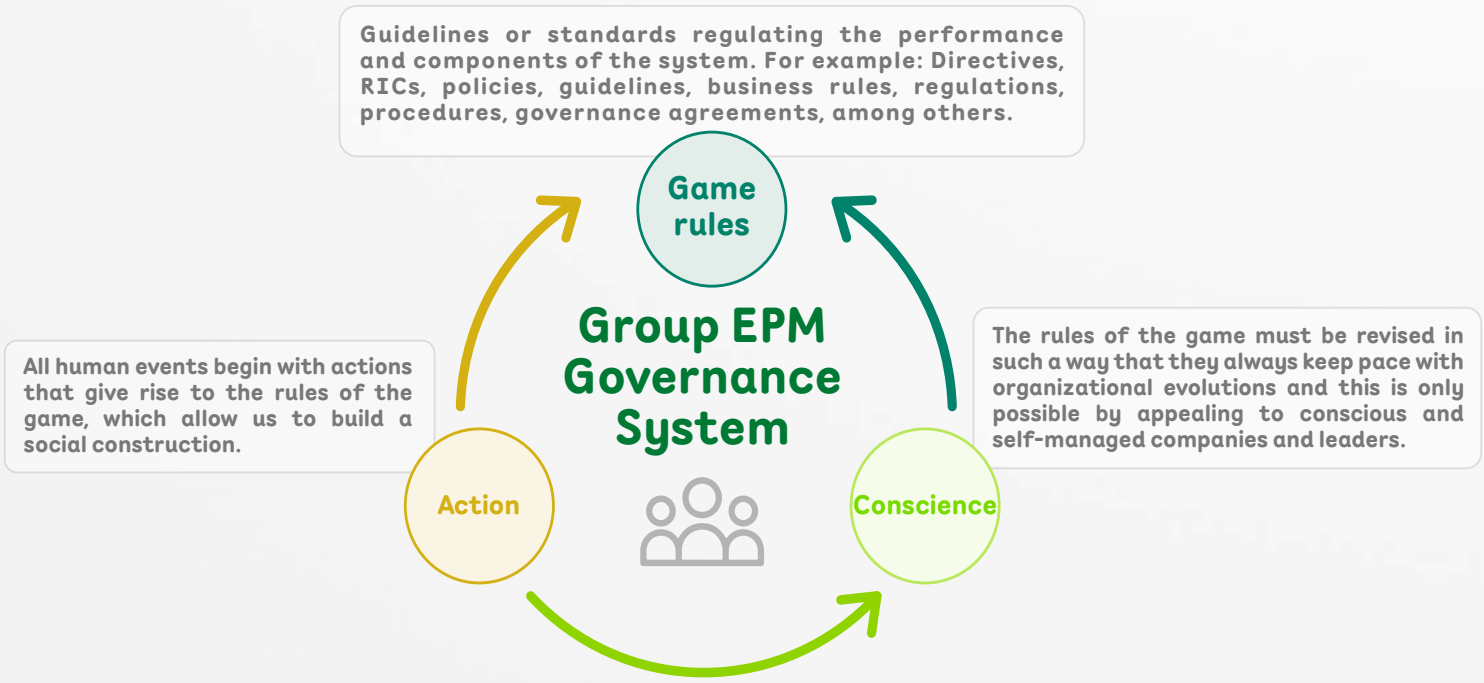
5.1.4. Grupo EPM Governance System

With the Governance System, we work together to honor the Group's purpose

EPM, aware of the strategic importance of corporate governance, focuses its efforts on strengthening its Governance System as the core element that allows it to organize and coordinate the Group's actions; such system is based on the definition of clear rules that facilitate the performance and that evolve from conscious decision making, framed in the unity of purpose and direction.

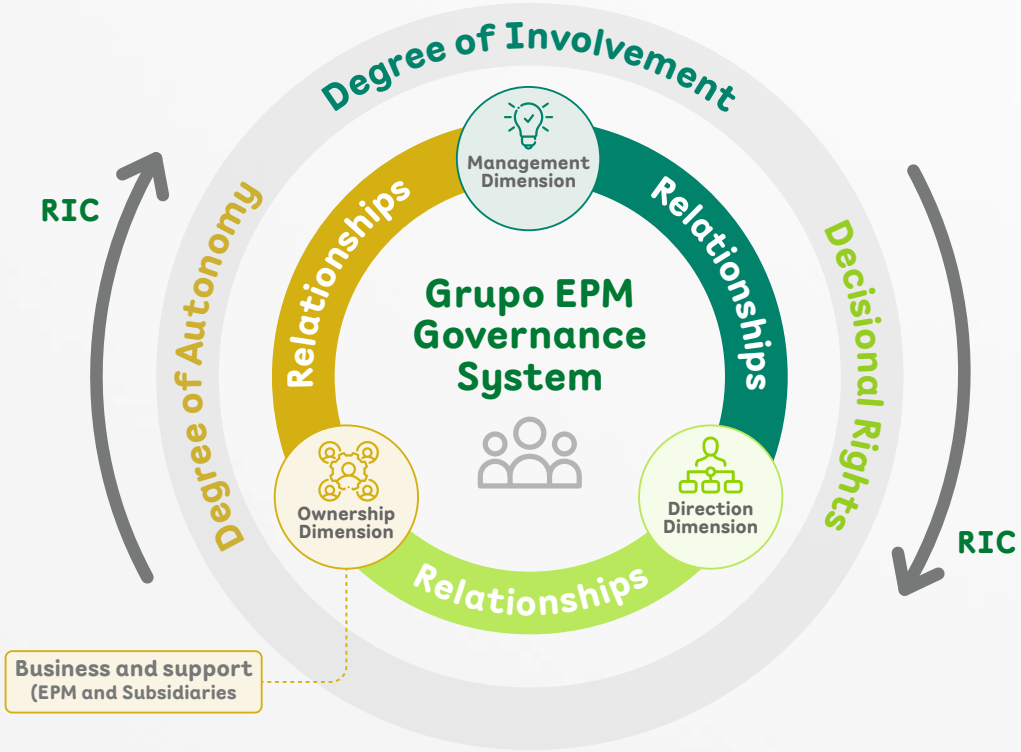
The fundamental intention is to articulate the multidirectional relationships between the companies comprising the group, effectively contributing to its growth, sustainability and consolidation. In doing so, Grupo EPM seeks to fully capitalize on the synergies and opportunities that arise when there is a high level of coordination in the management of its resources and operations.

Action precedes law and law precedes conscience



Grupo EPM's Governance System is based on the exercise of ownership and on the owner's intention to generate value and act with group conscience, under a single definition of corporate strategy and guidance towards the growth of Grupo EPM, guiding the governance and the provisions on how to obtain the results in the corporate frameworks and practices chosen as successful to be implemented in the businesses and/or subsidiaries.

Grupo EPM understands corporate governance as the system through which companies are directed, managed and controlled through a balance between ownership and administration, in order to guarantee their sustainability and growth, the rights of their investors, transparency and ethics in their performance and access to information for their stakeholders.



Given the complexity and the presence of multiple companies under the same control structure exercised by EPM as the parent company, Grupo EPM's Governance System highlights the importance of the management of each company as a dynamic and constantly changing system to promote sustainability.

Grupo EPM's Governance System encourages EPM, in its role as parent company, to exercise ownership in an informed, active and responsible manner, effectively leading its companies towards the creation of value through the corporate core, a governance scheme established in EPM that establishes unity of purpose through directives and frameworks for action.

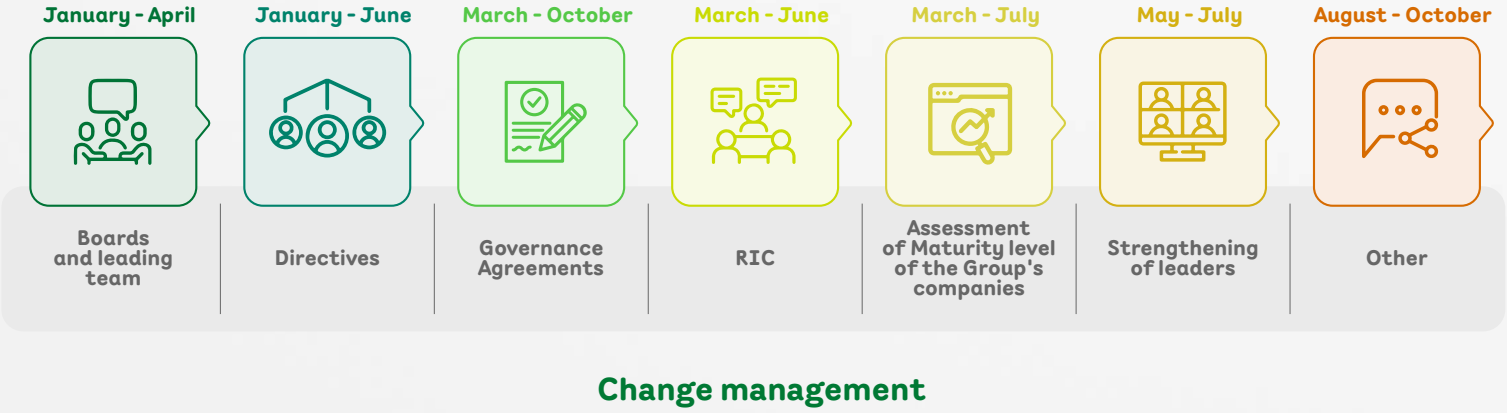
By establishing clear rules and goals, developing a sound strategy, communicating effectively, empowering each company and fostering innovation, the corporate core creates an environment conducive to success and the achievement of outstanding results in each company of Grupo EPM.

In 2023, the corporate core defined that the level of involvement of EPM, as parent, in Grupo EPM, is Strategic Manager.

This model focuses on providing the corporate and competitive strategic guidance that drives the unity of purpose and direction in the companies of Grupo EPM and leverages the acquisition, transfer and development of key capabilities for the achievement of the strategy.

The corporate core participates in strategic operational decisions and leverages synergies; the business model shared by the Group's companies puts the strengths and strategic expertise of the Corporate Group at its service, combining them with the strengths existing in other companies of the Group, to leverage the evolution and achievement of strategic objectives and goals of the Group and its companies" always seeking to generate value for the group.

For 2023, a work **plan was defined for the design of the governance system** that included the following blocks:



Achievements during 2023:

7 March

- Definition of the concept of "Governance System".
- Level of involvement of the Corporate Core "Strategic Manager".
- Approval of the work plan for the review and strengthening of the relationship mechanisms.
- Approval of 43 directives.

25 April

- Enabling organizational solution for the leadership of design, implementation and operation of Grupo EPM's Governance System, which will be assumed by the General Secretariat.

25 July

- Approval of adjustment to the initial schedule in scope and timing.
- Activating resources of adaptive solution according to organizational design.
- Maintaining articulation between Grupo EPM's Governance System and the Productivity Paths program.

28 November

- Adjustment to the Corporate Core directives in its 5 key missions. From 43 to 42 directives.
- Modifying the schedule by redefining activities with compliance by December 23 and relocating activities impacted by Productivity Pathways to 2024.
- Approving the Management Talent Continuity Strategy applicable to the companies of Grupo EPM and its constituent elements.

Back to content

Sustainability Report 2023

6. Management structure of Grupo EPM

Grupo·epm

6. Management structure of Grupo EPM

Grupo EPM's management is exercised through its governing bodies: General Shareholders' Meeting, Board of Directors and general manager of each subsidiary. These bodies must guarantee the articulation of each of the companies with the vision of the business group. GRI 2-9

6.1. Boards of Directors of Grupo EPM

The composition of the boards of directors of the subsidiaries must respond to the governance model established in the business group and take into account strategic factors, the specific situation of each company, the level of EPM's involvement and the knowledge of the plans that Grupo EPM develops for each business by EPM executives who are part of the respective business.

Thus, as defined in the "Guide for the appointment of Boards of Directors of the Group's companies", the predominant profile of the members representing EPM is business, and business/financial in some cases. GRI 2-10

Pursuant to the provisions of the aforementioned guide, the Boards of Directors of the Group companies must be compsed such that they comply comprehensively and as a collegiate body with the following characteristics:

Characteristic	International subsidiaries	National subsidiaries
Strategic management functions	✗	✗
Control and supervision functions	✓	✓

Characteristic	International subsidiaries	National subsidiaries
Partner relationship functions	✓	✓
Participation of external members	✓	✗ *
Maximum number of members	5	3 **
Predominant profile of members representing EPM	Financial/business	Business

**For national companies, external members will only be appointed on an exceptional basis, when there are specific relationship needs in the region.*

***Except in cases where there are members entitled to more than one position on the Board of Directors or as required by the particular conditions of the subsidiary.*

The objective is to have administrative bodies that align the management of the companies with the unity of purpose and direction, while facilitating the implementation of the strategy and business plans developed by the Parent Company, and to have a coordinated decision-making process and effective instruments to develop the principles of corporate governance that govern Grupo EPM, aimed at generating value.

The boards of directors have internal members who are part of EPM's governing body and do not receive additional remuneration for this function, and representatives of the partners who, for the most part, correspond to territorial entities.

Additionally, in some cases, EPM assesses the relevance of appointing external members that provide diversity in the profiles of the boards of directors, provide experience in the local context for decision making and contribute to the strategic relationship of the business group in the territory; therefore, for the appointment of these members, the selection of people from the market of incidence of each of the companies should be sought.

The following table includes the composition of the Boards of Directors of the companies of Grupo EPM for the period from March 2023 to March 2024, and helps us identify in which cases the aforementioned guidelines were complied with:

National Water and Sanitation Companies

Company	Position	Name	Category
Aguas del Oriente	1	León Arturo Yepes Enríquez	Internal
	2	Valeria Restrepo Abad	Internal
	3	Santiago Wilches Yepes	Internal
	4	Juan Carlos Peláez Agudelo	Representative Municipality of El Retiro
	5	Juan Edilberto Medina	Representative Municipality of El Retiro
	Alternate 1	Luisa María Pérez Fernández	Internal
	Alternate 2	Hemel Adolfo Serna Valencia	Internal
	Alternate 3	Juan Carlos González Ramírez	Internal
	Alternate 4	Carlos Mauricio Yepes Bedoya	Representative Municipality of El Retiro
	Alternate 5	Tatiana Montoya Sánchez	Representative Municipality of El Retiro
Aguas de Malambo	1	Santiago Ochoa Posada	Internal
	2	Jorge Antonio Yepes Vélez	Internal
	3	Beatriz Eugenia Giraldo Castaño	Internal
	4	Maritza Amparo Orrego Martínez	Internal
	5	Rummenigue Monsalve Álvarez	Mayor Municipality of Malambo
	Alternate 1	Jorge William Ramírez Tirado	Internal
	Alternate 2	León Arturo Yepes Enríquez	Internal
	Alternate 3	Silvio Triana Castillo	Internal
	Alternate 4	Valeria Restrepo Abad	Internal
	Alternate 5	Julio César García Fernández	Internal
aguas regionales	1	Jorge William Ramírez Tirado	Internal
	2	Maria del Pilar Restrepo Mesa	Internal
	3	León Arturo Yepes Enríquez	Internal
	4	Luis Fredy Mejía Betancur	Internal
	5	Nadia Maryori Maya Lopera	Representative Department of Antioquia
	Alternate 1	Valeria Restrepo Abad	Internal
	Alternate 2	Jorge Antonio Yepes Vélez	Internal
	Alternate 3	Juan Carlos Restrepo Benítez	Internal
	Alternate 4	Carlos Felipe Díaz Escobar	Internal
	Alternate 5	Juan David Blanco Tenorio	Representative Department of Antioquia

National Water and Sanitation Companies

Company	Position	Name	Category
aguas nacionales	1	Luisa María Pérez Fernández	Internal
	2	Wilder Wiler Echavarría Arango	Internal
	3	Emmanuel Cáceres de Kerchove de Denterghem	External Representative
	A1	Juan Carlos restrepo Benítez	Internal
	A2	Silvio Triana Castillo	Internal
	A3	Carlos Mario Tobón Osorio	Internal

International Water and Sanitation Companies

Company	Position	Name	Category
Ticsa	1	Luisa María Pérez Fernández	Internal
	2	Beatriz Eugenia Giraldo Castaño	Internal
	3	Silvio Triana Castillo	Internal
	4	Diana María Montoya Tamayo	Internal
	5	Adriana Catalina Ruíz Abondano	External representative
	Alternate 1	Juan Carlos Restrepo Benítez	Internal
	Alternate 2	Jorge Antonio Yepes Vélez	Internal
aguas antofagasta	1	Santiago Ochoa Posada	Internal
	2	Álvaro García Hurtado	External representative
	3	Carlos Mario Tobon Osorio	Internal
	4	Beatriz Eugenia Giraldo Castaño	Internal
	5	Luisa María Pérez Fernández	Internal
Hidrosur	1	Santiago Ochoa Posada	Internal
	2	Luisa María Pérez Fernández	Internal
	3	Jorge Antonio Yepes Vélez	Internal
	4	Darío Amar Flórez	Internal
	5	Maritza Amparo Orrego Martínez	Internal

Solid Waste Companies

Company	Position	Name	Category
envarias	1	Andrés Moreno Múnera	Internal
	2	Ana Milena Joya Camacho	Internal
	3	Martha Lucía Durán Ortíz	Internal
	A1	Luisa Maria Pérez Fernández	Internal
	A2	Jorge Antonio Yepes Vélez	Internal
	A3	Juan Carlos Castro Padilla	Internal

National Energy Companies

Company	Position	Name	Category
edeq	1	Olga Johanna Uribe Parra	Internal
	2	Querubín de Jesús Vanegas Sánchez	Internal
	3	Fabio Andrés Rivera Barrera	Internal
	Alternate 1	Diego Humberto Montoya Mesa	Internal
	Alternate 2	Esteban Duque Franco	Internal
	Alternate 3	Daniel Arrubla Gallego	Internal
chec	1	Carlos Israel Orduz Aguilar	Internal
	2	Juliana Carolina Zapata Molina	Internal
	3	Olga Johanna Uribe Parra	Internal
	4	Guillermo Trujillo Estrada	External representative
	5	Luis Carlos Velasquez Cardona	Governor of Caldas
	Alternate 1	Alberto Mejía Reyes	Internal
	Alternate 2	Juan Rafael López Foronda	Internal
	Alternate 3	Jorge Antonio Yepes Vélez	Internal
	Alternate 4	José Fernando Isaza Franco	Internal
	Alternate 5	Carlos Mario Marín Correa	Mayor of Manizales

National Energy Companies

Company	Position	Name	Category
ESSA	1	Andrés Moreno Múnera	Internal
	2	Diego Humberto Montoya Mesa	Internal
	3	Mauricio Aguilar Hurtado	Governor of Santander
	Alternate 1	Silvio Triana Castillo	Internal
	Alternate 2	Carlos Mario Tobón Osorio	Internal
	Alternate 3	Jaime René Rodríguez	Delegate Governor of Santander
CENS	1	Andrés Moreno Múnera	Internal
	2	Diego Humberto Montoya Mesa	Internal
	3	Silvano Serrano Guerrero	Governor of Norte de Santander
	Alternate 1	Silvio Triana Castillo	Internal
	Alternate 2	John Jairo Celis Restrepo	Internal
	Alternate 3	Carlos Mario Tobón Osorio	Internal
afinia	1	Andrés Moreno Múnera	Internal
	2	Martha Lucía Durán Ortiz	Internal
	3	Wilder Wiler Echavarría Arango	Internal
	4	Diego Humberto Montoya Mesa	Internal
	5	Gerardo Guerra Contreras	External representative
	Alternate 1	Querubín de Jesús Vanegas Sánchez	Internal
	Alternate 2	Olga Johanna Uribe Parra	Internal
	Alternate 3	Juan Carlos Castro Padilla	Internal
	Alternate 4	Esteban Duque Franco	Internal
	Alternate 5	John Jairo Celis Restrepo	Internal

International Energy Companies

Company	Position	Name	Category
DELSUR	1	Andrés Moreno Múnera	Internal
	2	Carlos Israel Orduz Aguilar	Internal
	3	Diego Humberto Montoya Mesa	Internal
	Alternate 1	Olga Johanna Uribe Parra	Internal
	Alternate 2	Darío Amar Flórez	Internal
EEGSA	1	Andrés Moreno Munera	Internal
	2	Carlos Israel Orduz Aguilar	Internal
	3	Diana María Montoya Tamayo	Internal
	4	Jhonatan Estiven Villada Palacio	Internal
	5	Daniel Arango Ángel	President ENSA
	Alternate 1	Querubín de Jesús Vanegas Sánchez	Internal
	Alternate 2	Darío Amar Flórez	Internal
	Alternate 3	John Jairo Celis Restrepo	Internal
	Alternate 4	Juan Rafael López Foronda	Internal
	Alternate 5	Maritza Amparo Orrego Martínez	Internal
trelec	1	Mario Alberto Naranjo Echeverri	Manager Guatemala
	2	Andrés Moreno Múnera	Internal
	3	Carlos Israel Ordúz Aguilar	Internal
	4	Diana María Montoya Tamayo	Internal
	5	Daniel Arango Ángel	President ENSA
	Alternate 1	Querubín de Jesús Vanegas Sánchez	Internal
	Alternate 2	Darío Amar Flórez	Internal
	Alternate 3	John Jairo Celis Restrepo	Internal
	Alternate 4	Juan Rafael López Foronda	Internal
	Alternate 5	Maritza Amparo Orrego Martínez	Internal

International Energy Companies

Company	Position	Name	Category
comegsa	1	Mario Alberto Naranjo Echeverri	Manager Guatemala
	2	Andrés Moreno Múnera	Internal
	3	Carlos Israel Ordúz Aguilar	Internal
	4	Diana María Montoya Tamayo	Internal
	5	Daniel Arango Ángel	President ENSA
	Alternate 1	Querubín de Jesús Vanegas Sánchez	Internal
	Alternate 2	Darío Amar Flórez	Internal
	Alternate 3	John Jairo Celis Restrepo	Internal
	Alternate 4	Juan Rafael López Foronda	Internal
	Alternate 5	Maritza Amparo Orrego Martínez	Internal
DECA II	1	Andrés Moreno Múnera	Internal
	2	Carlos Israel Ordúz Aguilar	Internal
	3	Diana María Montoya Tamayo	Internal
	4	Jhonatan Estiven Villada Palacio	Internal
	5	Daniel Arango Ángel	President ENSA
GESA	1	Andrés Moreno Múnera	Internal
	2	Carlos Israel Ordúz Aguilar	Internal
	3	Diana María Montoya Tamayo	Internal
	4	Jhonatan Estiven Villada Palacio	Internal
	5	Daniel Arango Ángel	President ENSA
	Alternate 1	Querubín de Jesús Vanegas Sánchez	Internal
	Alternate 2	Darío Amar Flórez	Internal
	Alternate 3	John Jairo Celis Restrepo	Internal
	Alternate 4	Juan Rafael López Foronda	Internal
	Alternate 5	Maritza Amparo Orrego Martínez	Internal

International Energy Companies

Company	Position	Name	Category
Credieegsa ENÉRGICA AMESA IDEAMSA	1	Mario Alberto Naranjo Echeverri	Manager Guatemala
	2	Andrés Moreno Múnera	Internal
	3	Carlos Israel Ordúz Aguilar	Internal
	4	Diana María Montoya Tamayo	Internal
	5	Daniel Arango Ángel	President ENSA
	Alternate 1	Querubín de Jesús Vanegas Sánchez	Internal
	Alternate 2	Darío Amar Flórez	Internal
	Alternate 3	John Jairo Celis Restrepo	Internal
	Alternate 4	Juan Rafael López Foronda	Internal
	Alternate 5	Maritza Amparo Orrego Martínez	Internal
ENSA	1	Andrés Moreno Múnera	Internal
	2	Martha Lucía Durán Ortiz	Internal
	3	Carlos Israel Ordúz Aguilar	Internal
	4	Federico Alfaro Boyd	Representative of the Government of Panama
	5	José Francisco Arango	Representative of the Government of Panama
HIDROECOLÓGICA DEL TERIBE, S.A.	1	Carlos Israel Ordúz Aguilar	Internal
	2	Alberto Mejía Reyes	Internal
	3	Maritza Amparo Orrego	Internal
	Alternate 1	Luz Marina Escobar Arango	Internal
	Alternate 2	Álvaro León Ospina Montoya	Internal

Corporate Companies

Company	Position	Name	Category
max seguros epm	1	Martha Lucía Durán Ortiz	Internal
	2	Andrés Felipe Uribe Mesa	Internal
	3	Luis Alberto Botero Gutiérrez	External representative
promobiliaria	1	Carlos Enrique Londoño Amariles	Internal
	2	Carlos Mario Tobón Osorio	Internal
	3	Beatriz Eugenia Giraldo Castaño	Internal
	4	Karoll García Vargas	External representative
	5	Ana María Toro Osorio	External representative
Fundación epm	1	Mabel Rocío López Segura	Internal
	2	Ana Milena Joya Camacho	Internal
	3	María Inés del Carmen Uribe Pabón	External representative
	4	María Andrea Trujillo	External representative
	5	Valentina Ángel	Representative Municipality of Medellín
	Alternate 1	Diego Humberto Montoya Mesa	Representative Municipality of Medellín
	Alternate 2	María Marulanda López	External representative
somos Grupo EPM	1	Silvio Triana Castillo	Internal
	2	Darío Amar Flórez	Internal
	3	Carlos Felipe Díaz Escobar	Internal
	Alternate 1	Fabio Andrés Rivera Barrera	Internal
	Alternate 2	Beatriz Eugenia Giraldo Castaño	Internal
	Alternate 3	Martha Lucía Durán Ortiz	Internal

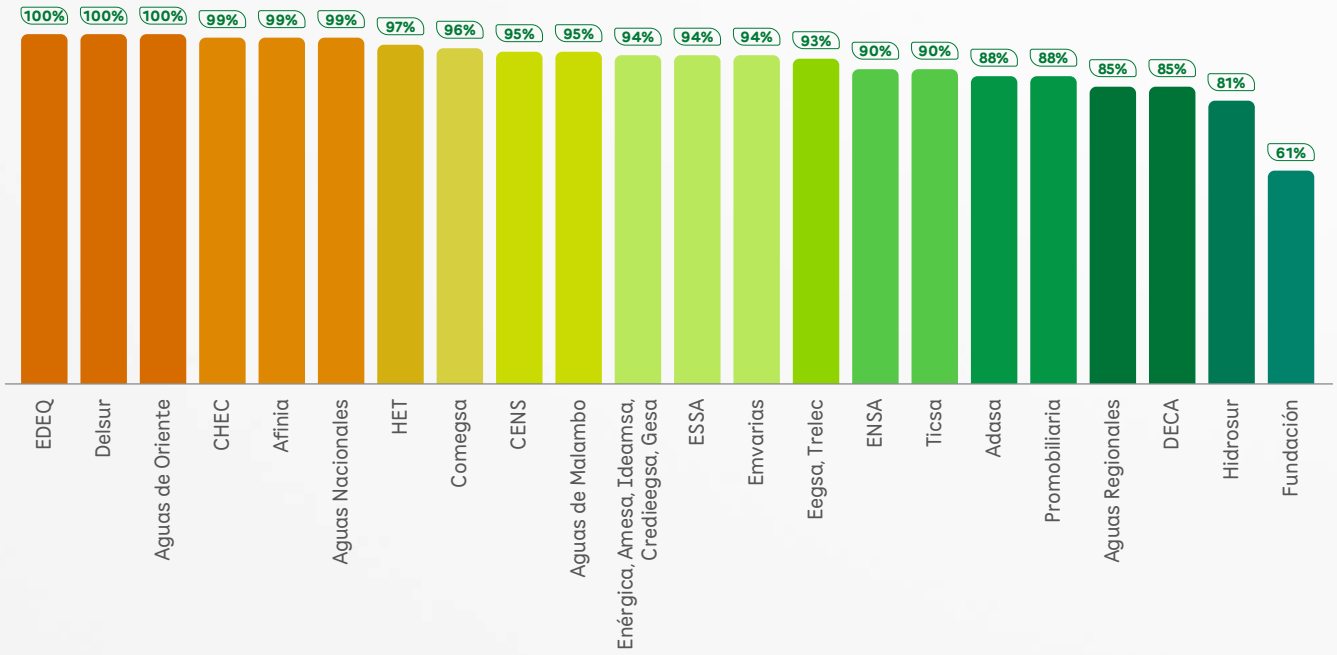
Investment Vehicles

Company	Position	Name	Category
EPM Inversiones	1	Martha Lucía Durán Ortiz	Internal
	2	Maritza Amparo Orrego Martínez	Internal
	3	Carlos Felipe Díaz Escobar	Internal
	Alternate 1	Juan Carlos Sampedro Tobón	Internal
	Alternate 2	Ángela María Loaiza Cortés	Internal
	Alternate 3	John Calle Hurtado	Internal
EPM Latam S.A.	1	Martha Lucía Durán Ortiz	Internal
	2	Carlos Felipe Díaz Escobar	Internal
	3	Maritza Amparo Orrego Martínez	Internal
Panamá Distribución Group S.A. (PDG)	1	Martha Lucía Durán Ortiz	Internal
	2	Carlos Felipe Díaz Escobar	Internal
	3	Maritza Amparo Orrego Martínez	Internal
epm Chile	1	Martha Lucía Durán Ortiz	Internal
	2	Carlos Felipe Díaz Escobar	Internal
	3	Maritza Amparo Orrego Martínez	Internal
epm México EPM Capital México S.A. D.C.V.	1	Martha Lucía Durán Ortiz	Internal
	2	Carlos Felipe Díaz Escobar	Internal
	3	Maritza Amparo Orrego Martínez	Internal
EPM Renovables	1	Carlos Israel Ordúz Aguilar	Internal
	2	Jorge Andrés Carrillo Cardoso	Internal
	3	Martha Lucía Durán Ortiz	Internal

6.1.1. Attendance of the members of the Boards of Directors of Grupo EPM

Below is the average attendance of the members of the Board of Directors of the companies of Grupo EPM:

Average attendance of boards of directors of the companies of Grupo EPM - 2023



6.1.2. Typical agenda and calendar of Boards of Directors of Grupo EPM

GRI 2-13

As a good corporate governance practice and to promote the unity of purpose and direction of Grupo EPM, the Corporate Governance Unit prepares each year the integrated calendar of the regular meetings of the boards of directors and other bodies of the subsidiaries and the typical agenda.

At the December 7, 2022 Joint Board meeting, these instruments were approved for 2023; the respective follow-up was carried out during this period. The 2023 Joint Meetings were held on December 1 and approved these instruments for 2024.

*The **typical agenda** in 2023 had an average compliance for Colombian companies of 97% (energy subsidiaries 100% and water subsidiaries 95%) and for international companies 99% (energy subsidiaries 100% and water subsidiaries 98%).*

6.1.3. Evaluation of Grupo EPM's Boards of Directors

GRI 2-18

Since 2014, Grupo EPM has had a unified **evaluation methodology for the Group's boards of directors,** in order to know in detail the management of this body, the degree of compliance with the commitments made by each of its members and the value that their performance adds to each company. The governance codes implemented in 2020 in the national subsidiaries include provisions related to this practice.

The **components evaluated** are as follows:

- Board of Directors relations with the company's management.
- Performance and effectiveness of the Board of Directors as a collegiate body.
- Role of the chairman and secretary of the Board of Directors.
- Individual performance as a member of the Board of Directors.
- Interaction and relationship between the Parent company and the subsidiaries.

Additionally, in order to strengthen the evaluations of the boards of directors and adopt best practices in this area, the evaluation from management's perspective was implemented since 2017, with the purpose of assessing the degree of alignment and interaction between the Board of Directors and Senior Management.

6.1.4. Board of Directors evaluation with peer methodology

For the **evaluation of the Boards of Directors of the national subsidiaries** CHEC, CENS, ESSA, Afinia, Aguas Nacionales and Aguas Regionales and the international subsidiary EEGSA, corresponding to the 2023 period, an evaluation model was implemented that includes a peer evaluation component, where each member of the collegiate body is evaluated by the other members, and a soft skills development component in members, preserving the essence and the different elements on which the Boards of Directors of the companies of Grupo EPM have been assessed.

The methodology incorporated evaluation elements based on the Conversational Capital model and on the evaluation implemented by subsidiaries in previous years, maintaining the structure of analysis of the following components:

- Board of Directors relations with the company's management.
- Performance and effectiveness of the Board of Directors as a collegiate body.
- Role of the chairman of the Board of Directors.
- Individual performance as a member of the Board of Directors.

Likewise, an external firm and EPM's Corporate Governance Unit provided support for the application and analysis of results.

The results obtained in CHEC, CENS, ESSA, Afinia, EEGSA, Aguas Nacionales and Aguas Regionales are provided below, independently from the results of other subsidiaries, since the methodologies are not comparable.

Results of peer methodology by component evaluated

	Components evaluated	aguas nacionales 2023	aguas nacionales 2022	aguas regionales 2023	aguas regionales 2022	CENS 2023	CENS 2022	ESSA 2023	ESSA 2022
1	Board of Directors relations with the company's management	97 %	88 %	93 %	96 %	90 %	90 %	97 %	97 %
2	Performance and effectiveness of the board of directors as a collegiate body	93 %	93 %	90 %	98 %	88 %	84 %	88 %	96 %
3	Chairman Role	97 %	95 %	95 %	99 %	88 %	92 %	80 %	97 %
4	Individual performance as a member of the Board of Directors	97 %	85 %	95 %	96 %	88 %	86 %	98 %	98 %
Total average		94 %	90 %	93 %	97 %	89 %	88 %	91 %	97 %

Averages greater than or equal to 96 % *Averages between 80% and less than 96 %* *Averages less than 80 %*

	Components evaluated	afinia 2023	afinia 2022	chec 2023	chec 2022	EEGSA 2023	EEGSA 2022
1	Board of Directors relations with the company's management	78 %	83 %	90 %	88 %	93 %	93 %
2	Performance and effectiveness of the board of directors as a collegiate body	84 %	90 %	90 %	88 %	88 %	95 %
3	Chairman Rol	84 %	91 %	91 %	85 %	91 %	91 %
4	Individual performance as a member of the Board of Directors	93 %	97 %	90 %	85 %	94 %	99 %
Total average		85 %	90 %	90 %	87 %	92 %	95 %

Averages greater than or equal to 96 % *Averages between 80% and less than 96 %* *Averages less than 80 %*

Results of self-assessments by component evaluated and by group of companies:

- Colombian water, sanitation and solid waste companies

	Components evaluated	Aguas de Malambo 2023	Aguas de Malambo 2022	Aguas del Oriente 2023	Aguas del Oriente 2022	emvarias 2023	emvarias 2022
1	Board of Directors relations with the company's management	86 %	87 %	90 %	86 %	64 %	71 %
2	Performance and effectiveness of the board of directors as a collegiate body	96 %	94 %	96 %	91 %	81 %	84 %
3	Chairman Role	99 %	98 %	96 %	89 %	88 %	92 %
4	Individual performance as a member of the Board of Directors	95 %	95 %	96 %	89 %	93 %	88 %
5	Parent Company - Subsidiaries interaction and relations	94 %	99 %	97 %	87 %	90 %	90 %
Total average		94 %	95 %	95 %	88 %	83 %	85 %

Averages greater than or equal to 96 % *Averages between 80% and less than 96 %* *Averages less than 80 %*

- International water and sanitation companies

	Components evaluated	Hidrosur 2023	Hidrosur 2022	Ticsa 2023	Ticsa 2022	Adasa 2023	Adasa 2022
1	Board of Directors relations with the company's management	86 %	89 %	83 %	91 %	91 %	94 %
2	Performance and effectiveness of the board of directors as a collegiate body	93 %	91 %	93 %	89%	96 %	94 %
3	Chairman Role	99 %	98 %	94 %	92 %	98 %	97 %
4	Individual performance as a member of the Board of Directors	97 %	93 %	95 %	95 %	97 %	97 %
5	Parent Company - Subsidiaries interaction and relations	83 %	92 %	89 %	89 %	96 %	91 %

Averages greater than or equal to 96 % *Averages between 80% and less than 96 %* *Averages less than 80 %*

- Colombian energy generation, distribution, transmission and marketing companies

	Components evaluated	edeq 2023	edeq 2022
1	Board of Directors relations with the company's management	88 %	97 %
2	Performance and effectiveness of the board of directors as a collegiate body	92 %	97 %
3	Chairman Role	92 %	100 %
4	Individual performance as a member of the Board of Directors	94 %	97 %
5	Parent Company - Subsidiaries interaction and relations	92 %	92 %
Total average		92 %	97 %

Averages greater than or equal to 96 % *Averages between 80% and less than 96 %* *Averages less than 80 %*

- International energy generation, distribution, transmission and marketing companies

	Components evaluated	DELSUR 2023	DELSUR 2022	ENSA 2023	ENSA 2022	Hidroecológica del Teribe S.A. 2023	Hidroecológica del Teribe S.A. 2022
1	Board of Directors relations with the company's management	91 %	96 %	94 %	93 %	90 %	94 %
2	Performance and effectiveness of the board of directors as a collegiate body	93 %	96 %	95 %	94 %	94 %	93 %
3	Chairman Role	93 %	90 %	96 %	95 %	96 %	95 %
4	Individual performance as a member of the Board of Directors	93 %	98 %	97 %	96 %	93 %	93 %
5	Parent Company - Subsidiaries interaction and relations	93 %		93 %	88 %	87 %	90 %
Total average		93 %	95 %	95 %	93 %	92 %	93 %

Averages greater than or equal to 96 % *Averages between 80% and less than 96 %* *Averages less than 80 %*

- Corporate Companies

	Components evaluated	promobiliaria		Fundación epm	
		2023	2022	2023	2022
1	Board of Directors relations with the company's management	84 %	73 %	90 %	85 %
2	Performance and effectiveness of the board of directors as a collegiate body	90 %	97 %	96 %	96 %
3	Chairman Role	88 %	100 %	100 %	100 %
4	Individual performance as a member of the Board of Directors	94 %	98 %	100 %	100 %
5	Parent Company - Subsidiaries interaction and relations	93 %	100 %	91 %	80 %
Total average		90 %	94 %	95 %	92 %

Averages greater than or equal to 96 % *Averages between 80% and less than 96 %* *Averages less than 80 %*

General conclusions

For 2023, self-assessments of the boards of directors of the Group's companies continued to show positive results, considering that most of them included the participation of new members.

It should be noted that board meetings were held in an environment of respect, trust and technical rigor, following the unity, purpose and direction of Grupo EPM.

The behaviors assessed were as expected for the development of functions of these governing bodies and, in general, their management during 2023 was outstanding. The boards of directors of the Group's companies are characterized by respect for the autonomy of each of their members and by differences of opinion.

The governing bodies (Board of Directors and Management) have always been characterized by their commitment as collegiate bodies, by the fulfillment of their legal duties, the secrecy of confidential information, independence and objectivity in decision making, by their participation, as well as by their strict compliance with the internal regulations of the Board of Directors. The performance of the role of the chairmen and secretaries of the boards of directors was also noted.

With regard to the convening of regular and special meetings held during 2023, there was an opportunity to optimize the agenda of meetings, to implement a more strategic approach in the scheduling of meetings, taking into account the time allocated to each topic, and to avoid operational issues.

The component "Parent-subsidiary interaction and relationship", which accounts for the knowledge of the boards of directors on the guidelines for interaction between the governing bodies, the expectations and guidelines of the Group and the corporate governance practices, in general gained opportunities for improvement, however, some board members stated in their comments that both regarding subsidiaries and the parent company, the governance scheme of Grupo EPM has been strengthened. Common spaces between subsidiaries and the parent company must continue to be encouraged and increased in order to guarantee unity of purpose and direction.

6.1.5. Strengthening plan

The results of the evaluation of each Board of Directors are the basis for establishing a **plan to strengthen management.**

With a view to defining the strengthening plan, at each Board of Directors meeting scheduled by typical agenda, a space for dialogue was created between the members of this body and Management. This plan was built and validated at this meeting, and the Secretary of the Board followed up on its implementation.

The strengthening plan aimed at:

- Promoting a systematic reflection by the Board on its own and Management's activities, in order to establish comprehensive improvement plans.
- Aligning Management's actions with the expectations of the Board of Directors.
- Contributing to the cohesion of the collegiate body and the generation of trust among its members.

The typical agenda of Grupo EPM's subsidiaries established the dates on which the implementation of this plan must be followed up.

6.1.6. Remuneration of the Boards of Directors of the companies of Grupo EPM

At Grupo EPM, remuneration is acknowledged for external members and representatives of the partners for attending the Board of Directors' meetings and committees (if any). The officers of EPM who act as members of the Board of Directors in the companies of Grupo EPM do not receive remuneration in this regard. GRI 2-20

The amount paid by each subsidiary per meeting attended and the frequency of regular meetings are shown below: GRI 2-19

Company	Value per attended meeting	Currency	Frequency of regular meetings
Water companies			
Aguas del Oriente	1 SMMLV*	COP	Monthly
Aguas de Malambo	1 SMMLV	COP	Monthly
aguas nacionales	1.5 SMMLV	COP	Monthly
aguas regionales	1.5 SMMLV	COP	Monthly
emvarias	1.5 SMMLV	COP	Monthly
Adasa	55	UF**	Monthly
Ticsa	1,800	USD	Monthly

Company	Value per attended meeting	Currency	Frequency of regular meetings
Energy companies			
chec	2 SMMLV	COP	Bimonthly
edeq	2 SMMLV	COP	Bimonthly
ESSA	2 SMMLV	COP	Monthly
CENS	2 SMMLV	COP	Monthly
afinia	3 SMMLV	COP	Monthly
DECAII, eegsa, comegsa, trelec	2,000	USD	Monthly
DELSUR	1,600	USD	Bimonthly
ENSA	2,000	USD	Bimonthly

*SMLMV – Current Minimum Legal Monthly Wage (Colombia)
**UF-Unidad de Fomento (Development Unit - Chile). 1 Chilean development unit is equal to US 34.64 US dollars.

In compliance with Grupo EPM's Corporate Governance Code, the amount paid by each company during 2023 for fees and/or benefits (per diem) to the members of their respective boards of directors is detailed below:

Remuneration of boards of directors of Grupo EPM

Subsidiary	Currency	Total paid 2023
Aguas del Oriente	COP	25,520,000
Aguas de Malambo	COP	-
aguas nacionales	COP	23,784,930
aguas regionales	COP	4,502,312
emvarias	COP	-
Adasa	UF	935
ticsa	USD	9,600
chec	COP	58,000,000
edeq	COP	-
ESSA	COP	16,137,920
CENS	COP	3,513,770
afinia	COP	95,962,185
DECA II, eegsa, comegsa, trelec	USD	61,550.65
DELSUR	USD	4,265
ENSA	USD	56,000
Fundación epm	COP	-

6.2. Managers of the companies of Grupo EPM

In 2023, the following new **developments occurred in the management of the Group's companies:**

- The manager of Aguas Regionales, Hernán Andrés Ramírez Ríos, joined EPM to serve as Salinas Project Manager and Wbeimar Garro Arias was appointed manager of such subsidiary as of January 18, 2023.
- The manager of Emvarias was dismissed from the position and Adriana María Londoño Carvajal of EPM was appointed as commissioner as of November 1, 2023.
- Carolina Quintero resigned as manager of EDEQ to remain as president of Delsur, which vacancy was filled with the appointment of Fabio Alberto Salazar Rojas as of June 1, 2023.
- The contract of ESSA's manager was terminated by mutual agreement, and José Gregorio Ramírez Amaya was appointed as of June 22, 2023.

The following is a list of the **leaders comprising Grupo EPM's manager team:**

Subsidiary	Name	Title	Seniority at Grupo EPM (years)
Aguas del Oriente	**Hernán Alexander García Henao**	Manager (commissioned)	16,52
Aguas de Malambo	**Walther Darío Moreno Carmona**	Manager	8,17
aguas regionales	**Wbeimar Garro Arias**	Alternate Manager	14,07
aguas nacionales	**Henry Parra Molina**	President	14,12
emvarias	**Adriana María Londoño Carvajal**	Manager (EPM commissioned)	16,57
Adasa	**Carlos Mario Méndez Gallo**	General manager	32.15
Ticsa	**Juan Carlos Restrepo Perea**	CEO	12,51

Subsidiary	Name	Title	Seniority at Grupo EPM (years)
Hidrosur	**Jorge Alberto Cadavid Monroy**	Legal Representative (appointed)	31,58
edeq	**Fabio Alberto Salazar Rojas**	General manager	0,58
chec	**Santiago Villegas Yepes**	Manager	14,54
ESSA	**José Gregorio Ramírez Amaya**	Manager (e)	8,08
CENS	**José Miguel González Campo**	Manager	8,14
afinia	**Javier Alonso Lastra Fuscaldol**	General manager	2,37
epm Guatemala	**Mario Alberto Naranjo Echeverri**	Country Manager	27,31
DELSUR	**Carolina Alexandra Quintero Gil**	Executive President	17,48
ENSA	**Daniel Arango Ángel**	Executive President	3,92
max seguros epm	**Oscar Armando Restrepo Posada**	President	10,08
Fundación epm	**Vivian Cecilia Puerta Guerra**	CEO	2,63
promobiliaria	**Giovani Salas Araque**	Manager	1,09
EPM Inversiones	**Carlos Mario Tobón Osorio**	Legal Representative (EPM servant)	29,57

Each year, aligned with the strategic objectives, performance commitments are defined for the managers of the companies of Grupo EPM. Its objective is to promote and emphasize the main levers of business value, generate cohesion and coherence in the actions of the entire Company and develop a roadmap of what is expected of each subsidiary and its management, taking into account their particularities and priorities.

The approval of these performance commitments is carried out in a very important space for Grupo EPM, referred to as "Joint meetings of the companies of Grupo EPM", in which the three governing bodies of the companies meet:

- The ownership, represented by the manager of Grupo EPM and by representatives of some of the partners.
- Governance, represented by the boards of directors.
- Management, represented by the managers.

6.3. Grupo EPM Executive Meeting

Since 2014, Grupo EPM's management team, consisting of EPM's vice presidents and the managers of the national and international operating and corporate subsidiaries, led by EPM's general manager, meet periodically with two fundamental objectives:

- Creating a shared vision of Grupo EPM.
- Empowering company managers as leaders of the business group.

Each meeting addresses a specific topic, aligned with the strategic timing of Grupo EPM, to strengthen the unity of purpose and direction.

*In 2023, the **Executive Meeting of Grupo EPM** was held on April 28 in person and was attended by 40 executives, including managers from Colombian and international subsidiaries, the general manager of EPM and the first and second level vice presidents of EPM.*

Topics covered:

- Results of previous executive meeting
- EPM, a systemic view of its governance
- Presentation Governance System
- Workshop on directives
- Next steps: work plan and subsidiary contributions
- Disclosure of MEGA

6.4. Managerial performance assessment of managers/presidents of Grupo EPM

GRI 2-18

As part of Grupo EPM's Governance System and one of its work batches associated with the strengthening of Grupo EPM's leadership, practices were updated and/or created for the continuity of management talent, among them the update of the methodology for the assessment of the managerial performance of managers/presidents, which is consistent with the elements established in the cultural evolution, policy and model for the management of human talent.

The assessment of managers/presidents involves establishing the aspects that show good managerial performance and applying the assessment instrument to identify strengths and opportunities for further strengthening, in order to promote actions that enhance their leadership and generate value for the Company they lead and the Group.

The unified methodology for this exercise consists of a multi-source tool, which allows for the evaluation of aspects classified into four components:

Component

Strategic perspective:
Evaluates how the manager/president understands the corresponding results and challenges and integrates the sustainability model in his or her decisions, and the perspective that his or her company is part of a business group; this for the benefit of unity of purpose and direction.

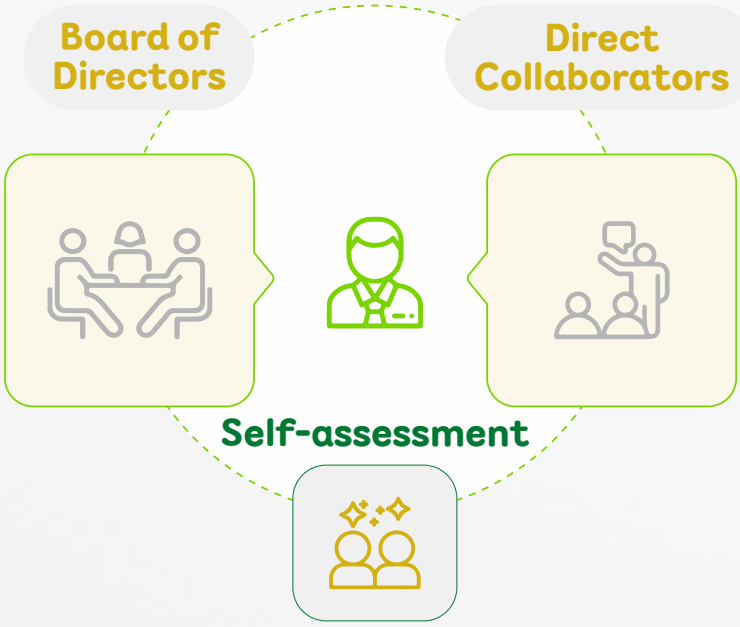
Results management:
In his or her management and leadership style, he or she generates clear guidelines and strategies, empowers his or her work team and proactively resolves the aspects that require his or her attention; he or she verifies the quality and achievement of expected results.

Relationship management:
Includes the ability of the manager/president to guide his or her management team, to accompany them in complex situations and to resolve conflicts based on the common good and the higher purpose.

Self-management:
Acts in accordance with the Group's values, principles of action and ethical behavior, and assumes its growth and development as required by the dimensions.

Competencies for public employees:
Applies to EPM and Emvarias
Acts in accordance with the Group's values, principles of action and ethical behavior, and assumes its growth and development as required by the dimensions.

The assessors are as follows:



The result for the management goals indicator is the simple average of the assessment of the members of the Board of Directors and the vice president responsible for the company (when the latter does not belong to the Board). The self-assessment and assessment of direct collaborators is an input for strengthening actions.

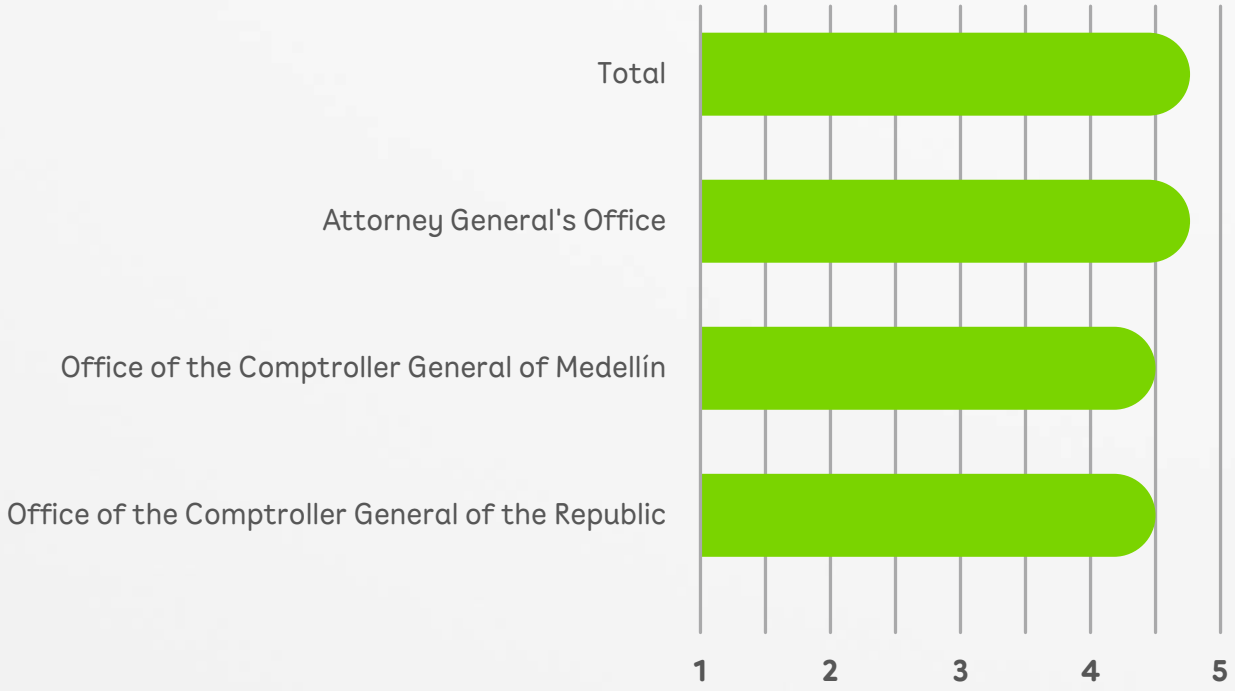
For the 2023 assessment, the scale was adjusted to a frequency scale as follows:

- Always
- Almost always
- Sometimes
- Almost never

The averages obtained by component are located between always and almost always, the highest positions of the assessment criteria; the highest rated component is self-management, and the one with the lowest rating is strategic perspective.

Component	Average assessed 2023
Strategic perspective	4,48
Performance management	4,51
Relationship management	4,66
Self-management	4,70

Average assessed 2023



6.5. Strengthening plan

The results of the managers/presidents' assessment are delivered at the February meeting of the Board of Directors of each company.

This rating is part of each manager's goals and is referred to as Managerial Performance Indicator; in companies that have variable compensation, a weight is recorded as part of the annual bonus.

Based on the results obtained in this assessment exercise, recommended strengthening actions are delivered that define a strengthening plan for the manager/president, and the Board of Directors issues a public statement about the manager's activities and performance, which is part of the annual Management Report of the company for which he or she works.

6.6. Remuneration of Grupo EPM's management team in Colombia

In compliance with Grupo EPM's Code of Governance, the amount for salaries and benefits that during 2023 was paid to the general manager and to the persons who are part of the first reporting level in the organizational structure of national subsidiaries is detailed below:

Remuneration of Grupo EPM's management team

Subsidiary	Currency	Total, paid 2023
Aguas del Oriente	COP	195,551,667
Aguas de Malambo	COP	639,012,978

Remuneration of Grupo EPM's management team

Subsidiary	Currency	Total, paid 2023
aguas nacionales	COP	1,164,570,614
aguas regionales	COP	1,222,224,530
emvarias	COP	2,599,644,843
chec	COP	3,034,036,083
edeq	COP	2,459,821,324
ESSA	COP	4,724,073,501
CENS	COP	3,771,006,012
afinia	COP	6,897,795,670
Fundación epm	COP	1,529,553,736

* The information includes the payment of people on assignment and retirees during 2023.

‹ Back to content

Sustainability Report 2023

7. Corporate Governance Measurements

Grupo·epm

7. Corporate Governance Measurements

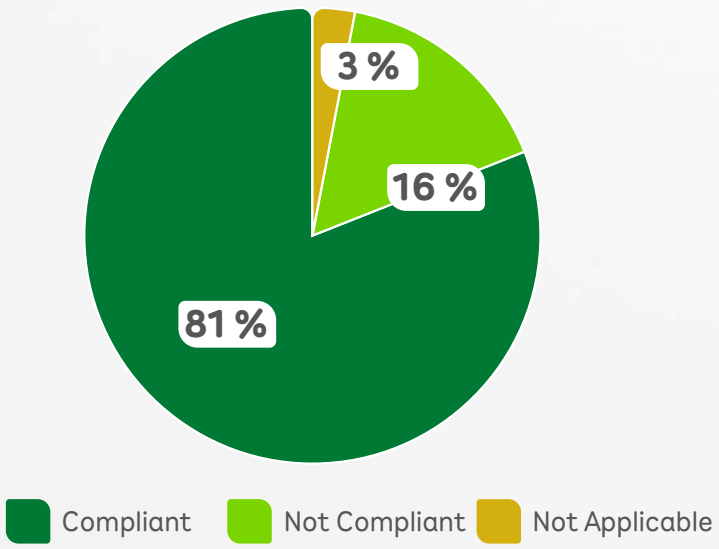
7.1. Country Code

On January 31, 2024, within the deadline established by the Financial Superintendence of Colombia, EPM transmitted the Corporate Best Practices Implementation Report of the Country Code Survey, corresponding to the period between January 1 and December 31, 2023.

The answers to the survey explain the corporate governance practices adopted and applied by EPM during each period; for the 2023 period, 81% of the recommendations were reported to have been adopted, where there was no variation with respect to the 2022 period.

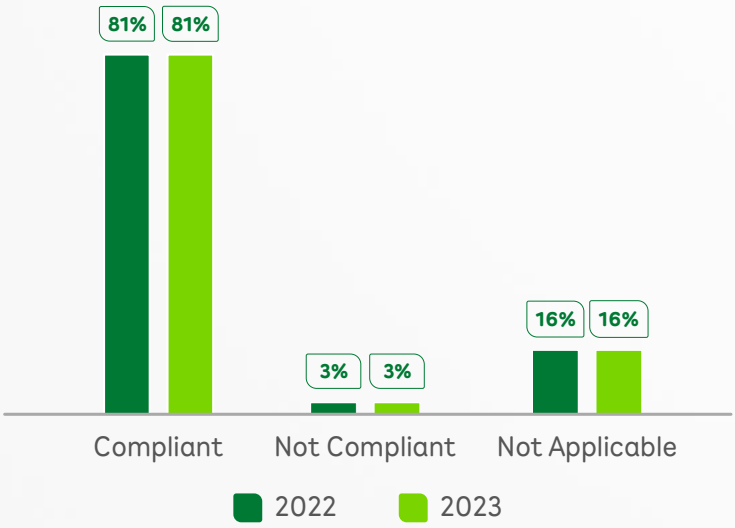
The recommendations that were not implemented are mainly due to the practical impossibility of amending the Company's bylaws, while the recommendations which implementation is not applicable are associated with the legal nature of the Company.

Country Code 2023



Country Code

Comparison 2022-2023



The report of this survey is published *Here.*

7.2. Business transparency

EPM participates in the **Business Transparency Measurement**, Public Utilities chapter, promoted by the corporation Transparencia por Colombia. The general objective of the measurement is to identify corruption risks, which will allow for improving transparency and anti-corruption standards, in order to strengthen business management. This is a tool that identifies institutional designs and practices that generate corruption risks, and promotes the formulation and execution of improvement actions.

The Business Transparency Measure consists of four components: clear rules, openness, dialogue and control.

EPM has participated since 2008 in the Business Transparency Measurement, the results obtained with the measurements made in EPM and the Colombian water and energy subsidiaries reflect the commitment, as a business group, with this important practice and are a stimulus for continuous improvement and strengthening of the corporate integrity system.

The measurement is made every two (2) years, so EPM is currently preparing for its participation in 2024.

7.3. Investor Relations (IR) Acknowledgment

For the 2023 period, EPM once again received the **Issuer Acknowledgment -IR- granted by the Colombian Stock Exchange (BVC)**, given the importance for investors to have sufficient and timely information for their investment decisions. This acknowledgment encourages issuers to adopt best practices in disclosure, Investor Relations (IR) and implementation of ESG (Environmental, Social and Governance) factors.

7.4. Credit risk rating

In 2023, EPM timely informed the 2 credit risk rating firms about the relevant facts that impacted it; this, in order to provide them with the necessary elements to issue their opinion and thus maintain their confidence and that of investors in the Company.

*In 2023, **Fitch Ratings** maintained EPM's risk rating at "BB+" on an international scale and "AAA" on a national scale, both on negative observation; **Moody's** maintained the international rating at investment grade level "Baa3" with a stable outlook.*

With respect to the subsidiaries of the business group, the positive performance continued, maintaining the "AAA" ratings for the national energy subsidiaries and EPM Inversiones; "AA+" for Emvarias; "AA-" for Aguas Regionales. In its second year of rating, the subsidiaries Aguas Nacionales and Afinia remained at "AAA" with negative observation.

For the international subsidiaries, Adasa remained at "AA-" (local rating in Chile) and DelSur at EAAA (slv) in the local scale of El Salvador; ENSA, on the other hand, affirmed its investment grade rating of "BBB" on an international scale, with a stable outlook.

[1] https://www.bvc.com.co/pps/tibco/portalbvc/Home/Companys/IR/Companys_IR?action=dummy

7.5. Corporate Governance Indicators

Corporate Governance is a strategic pillar that provides the basis for effective, ethical and sustainable management; within its Balanced Scorecard (BSC), EPM has two indicators that respond to the strategic objective of strengthening institutional soundness through corporate governance. With these measurements, the Organization seeks to assess and improve the quality of its governance practices, have an impact on its overall performance and reputation, as well as achieve transparent management with stakeholders.

At the end of 2022, the Corporate Governance Soundness indicator was incorporated, which measures the implementation of corporate governance practices, complying with the legal and regulatory framework, as well as with the corporate governance standards applicable to EPM. The indicator consists of three dimensions or value areas, which are made up of a set of initiatives and practices that must be fulfilled each year in accordance with the scope defined in the work schedules. By 2023, the measurement of the indicator showed a 100% compliance, which evidences a satisfactory compliance with EPM's governance plan and therefore greater strength in terms of Corporate Governance.

On the other hand, the Transparency indicator was designed to comply with corporate governance information disclosure and transparency practices that are applicable by regulation and voluntary adoption to EPM. The indicator is structured by two variables, Disclosure Index and Country Code, designed following the recommendations of the Colombian Institute of Corporate Governance (ICGC) on matters that organizations should report to their stakeholders, and the Country Code survey of the Colombian Financial Superintendence, which seeks to establish a code of best corporate practices.

The fulfillment of this indicator gives signs associated with the progress of EPM's commitment to strengthen transparency, trust and accountability with stakeholders. The higher the compliance percentage, the more information EPM discloses and is easily accessible to stakeholders.

The company continues to make progress in the implementation of indicators, covering the Group, that allow for evidencing the progress in the adoption of good governance practices in the companies of Grupo EPM.

‹ Back to content

Sustainability Report 2023

8. Investor relations

Grupo·epm

8. Investor relations

EPM maintained its transparency practices before the national and international financial markets, complying with the timely and updated delivery of the Company's information. Some of the most representative practices in this regard are: the quarterly financial results delivery teleconferences (four per year in Spanish and English), the Annual Investor Meeting, the web portal for investors (Spanish and English version) and the permanent service to local and international investors through different channels (mailbox, teleconferences, calls).

Likewise, in response to the recommendations of the Colombian Stock Exchange regarding the Bondholders' Meeting (specifically the rules regarding its powers, internal regulations and agenda for its development), a modification of the Corporate Governance Code was approved in this regard, thus promoting better disclosure and investor relations practices.

8.1. Relevant information

Given its participation in the Colombian public securities market, through the issuance of bonds, EPM acts as issuer.

Therefore, it must inform investors and the market in general of the relevant facts of the company and its business group, and provide access to timely, true, sufficient, complete and easily understandable information on its financial and non-financial position, in order to provide equitable

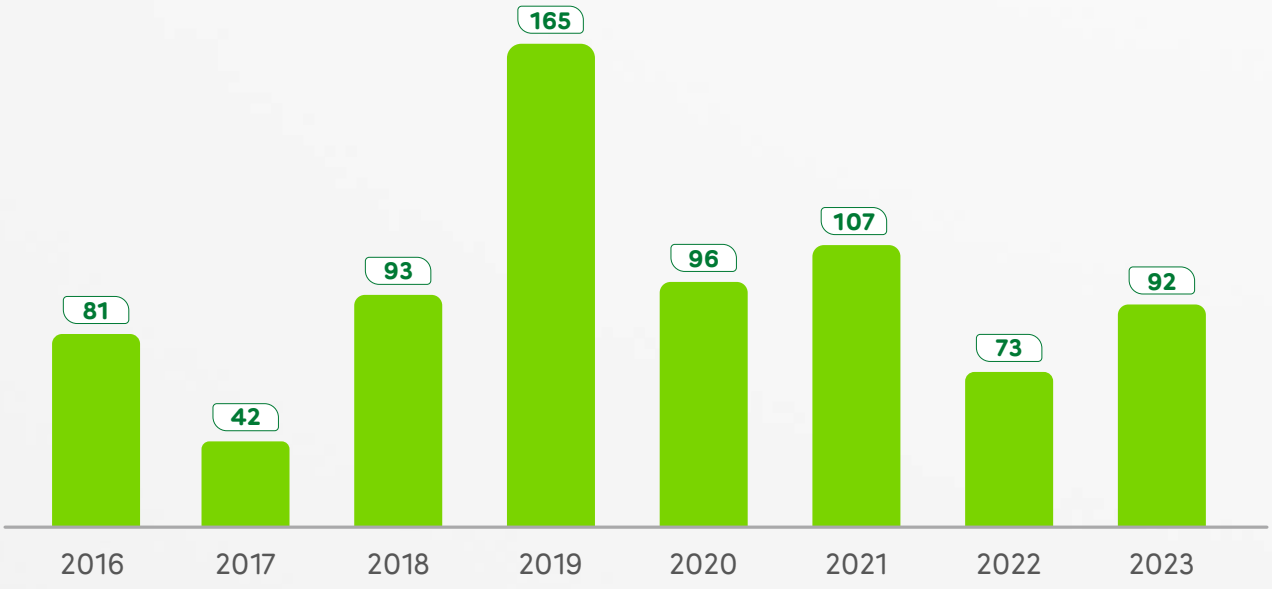
treatment, generate relationships of trust and facilitate the decision-making of its investors and other stakeholders; in line with the above, EPM has in place an Information Disclosure Policy and internal regulations governing the management and publication of relevant information.

*During 2023, EPM made **92 relevant information reports,** which included financial and non-financial information.*

On the website of the Financial Superintendence of Colombia (Relevant Information) you can consult the relevant information reports made by EPM in 2023.

Below is the **history of relevant information published** by EPM:

History of Relevant Information Reported



8.2. Loan operations

In March 2023, an international long-term loan agreement was signed with the Agence Française de Développement - AFD - in the amount of USD 189.8 million, for a 10-year term, to partially finance the investment plan.

In August, the parties signed Amendment No.1 to the agreement in force between CAF and EPM, which allowed for the modification of the interest rate, changing the reference interest rate from Libor to Term SOFR; it should be noted that this modification occurs due to the end of publication and use of Libor by the international financial market.

Additionally, in December 2023, a local long-term loan agreement was signed with Banco de Occidente, in the amount of COP 200,000 million, for a 7-year term, to cover general corporate uses.

In November and December, short-term loan agreements were signed with BNP Paribas for USD 200 million and Banco Santander for USD 100 million, to finance the Company's working capital.

On the other hand, in order to minimize the exchange risk of the financial liability, EPM executed 6 USD-COP swap financial derivative operations, changing from interest rate in USD (SOFR) to interest rate in COP (IBR), in the amount of USD 604 million, in order to hedge the exchange rate and interest rate risks associated with the cash flows of the Club Deal loan taken out with the international bank in 2022.

‹ Back to content

Sustainability Report 2023

9. Corporate Governance Planning

Grupo·epm

9. Corporate Governance Planning

Every year, since 2006, EPM's Board of Directors approves the "Medium and Long Term Corporate Governance Plan", a voluntary initiative that since 2021 is part of EPM's Corporate Plan and contributes to the fulfillment of the functional strategy of the General Secretariat.

The Plan consolidates the practices and milestones developed by the Corporate Governance Unit during a four-year cycle to maintain a constant evolution of the corporate governance of EPM and its business group.

9.1. Follow-up on Corporate Governance Plan 2023

During 2023, the schedules of the Plan's initiatives were defined, their scope was reviewed and the Corporate Governance Unit periodically monitored compliance with the planned activities, which facilitated their fulfillment. Also, on November 17, the Management and Corporate Governance Committee of EPM's Board of Directors followed up thereon.

All the initiatives of the Plan were executed 100%, complying with the schedules and the scope assigned to each for 2023.

No.	Emphasis/Plan Issues	% Progress Planned	% Progress executed and compliance
1	Strengthening of ownership management	100 %	100 %
2	Strengthening of Grupo EPM's governing bodies	100 %	100 %
3	Strengthening of intragroup relations	100 %	100 %
4	Strengthening of framework for action, Governance Model and its relations	100 %	100 %

% Planned Compliance equal to or greater than 95 % Compliance between 75% and less than 95 %

Achievements and progress

epm®

- Formulation of the methodology for the evaluation of the Master Relations Agreement between the District of Medellín and EPM, which includes the adjustments proposed by the Corporate Governance Officer of the Development Bank of Latin America and the Caribbean (CAF) and the incorporation of indicators as a result of the recommendation of the International Finance Corporation (IFC) of the World Bank regarding administrative autonomy reported by CAF, IFC and the Organization for Economic Cooperation and Development (OECD).
- Proposed procedure for the appointment, removal and evaluation of the general manager of EPM.
- Contribution to the timely and transparent delivery of EPM's information during local elections through participation in the strategy of Openness of Information at Election Time. Likewise, the transition process of EPM with the new district administration was developed with the purpose of providing continuity and long-term vision in EPM's strategy and management.
- Formulation and submission of a proposal to the Management and Corporate Governance Committee regarding the role to be played by said committee during the transition to the new administration and the execution of activities in the work plan. Formulation of a profile matrix as required by the Board of Directors.
- Implementation of the peer evaluation methodology of the Board of Directors at EPM.
- EPM's Corporate Governance Code was strengthened by updating the chapter Investors, including the recommendations of the BVC on the Bondholders' Meeting (specifically the rules on its powers, internal regulations and agenda for its development). By including this amendment, we continued to promote better disclosure and investor relations practices.
- Addressing the material issue of Corporate Governance, especially the ownership dimension of EPM and ethics in the performance of the governing bodies, through the dissemination of information on EPM's corporate governance, both to internal and external parties.
- Incorporation of ESG criteria in the agenda of EPM's Board of Directors, to contribute to the strengthening of EPM's Sustainability Model.
- Updating of EPM's Corporate Governance Code with the inclusion of the chapter on Diversity, gender equality and inclusion.

Achievements and progress

Grupo•epm

- The methodology for peer evaluation of the Board of Directors in subsidiaries was defined.

  Board members from seven of the Group's companies conducted the peer evaluation in 2023: ESSA, CENS, CHEC, Eegsa, Aguas Nacionales, Aguas Regionales and Afinia.

- Revision of the methodology for the evaluation of general managers of subsidiaries based on four aspects to be assessed (Perspective of the unity of purpose and direction, results management, relationship management and self-management), 4 evaluation scales, and descriptions expressed in concrete actions. In addition, the methodology for the general manager of EPM was incorporated, and adjustments were made to this role.

- Revision of the corporate purpose of Fundación EPM and proposal to adjust the bylaws, including the functions of the board and the director, to bring them into line with the bylaws of national subsidiaries. Preparation of proposed Governance Code.

- Preparation of proposed clause on alternative mechanisms for the resolution of conflicts between governing bodies for national subsidiaries.

- Comprehensive revision of bylaws of the national subsidiaries and preparation of an adjustment proposal, which includes, among others, the functions of the manager, the board, the shareholders' meeting and new clauses.

- Update of the guide for the execution the minutes of the Governance Agreement for national and international subsidiaries.

- Structuring of a scorecard with key corporate governance indicators and follow-up mechanisms.

  External benchmarking was carried out on how companies verify the implementation and compliance with governance practices and an indicator was developed and structured in 7 key Corporate Governance topics, which will be the methodology to be used by 2024.

  Most of the indicators were adopted from practices reported by different organizations (IFC, CAF, OECD, etc.).

  The indicators are supported by a template with the elements comprising them (formula, target, supports, frequency, among others) and have supporting guidance documents and annexes that contribute to the measurement.

- Review of ESG standards to incorporate improvements in the Annual Corporate Governance Report of Grupo EPM, and to comply with the TCFD and SASB standards and thus strengthen ESG reporting.
- Definition of Grupo EPM's Governance System, through 7 work blocks:

  i) **Boards of Directors:** the composition of the boards of directors of the companies of Grupo EPM was defined; induction of internal members of the boards of directors was carried out. Board members were trained to strengthen their role, with reporting to the corporate core and alignment with the business. The booklet with tips or best practices to strengthen the role of the chairman, board members and other recommendations were prepared and submitted at the Joint Meetings.

  ii) **Directives:** 42 directives were approved in the Corporate Core Committee and interaction minutes were signed to enable the functional relationship for the adoption and implementation of directives in the Group's companies.

  iii) **Governance agreement:** a diagnosis was made, an inventory of services provided to subsidiaries was prepared and a work plan was proposed for adjusting the governance agreement in 2024.

  iv) **RIC (Integration and Coordination Meetings):** an inventory of these meetings, covering the Group, was consolidated.

  v) **Segmentation of subsidiaries:** we reviewed the proposed criteria defined from the financial and Corporate Governance standpoints. Progress was made on a proposal that considers 3 criteria, each with its own indicators (financial, reputation and governance).

  vi) **Strengthening of leaders:** continuity practices were defined for managers/presidents, first reporting level and governance positions.

  vii) **Other deliverables:** a proposal was made to harmonize the bylaws with the directives. The governance portal for Grupo EPM was also designed.

9.2. Corporate Governance Plan 2024 - 2027

The **Corporate Governance Plan 2024-2027**, which consolidates a medium and long-term vision, and includes the initiatives of EPM and Grupo EPM to maintain a constant evolution in this regard, was designed based on an multi-source analysis and was approved by the Board of Directors of EPM, as part of the Business Plan 2024 - 2027, in a meeting held on November 1, 2023 (minutes No. 1776).

1. Strengthening of ownership management			
1	🟡🟠🟢🟢	Propose methodology to the Municipality of Medellín for the evaluation of the Master Relations Agreement.	E
2	🟡🟠🟢🟢	Adopt best management practices: redefine the General Manager's appointment and removal process.	E
3	🟡	Participate in the relationship management process during the electoral cycle (openness of information) and the transition.	E
4	🟡🟠	Activate the work plan of the Management and Corporate Governance Committee for the governing bodies, due to a change in the representation of EPM's ownership.	E
5	🟢	Assess the feasibility of defining and implementing the majority shareholder statement.	G

2. Strengthening of governing bodies of the companies of Grupo EPM			
1	🟠🟢🟢	Update corporate governance codes in subsidiaries.	G
2	🟠	Structure the board policy of the Group's subsidiaries.	G
3	🟡🟠🟢	Assess the feasibility of defining and implementing a peer evaluation methodology for the Board of Directors in EPM and subsidiaries.	G

🟡 2023 🟠 2024 🟢 2025 🟢 2026 *E: Covering EPM G: Covering Grupo EPM

2. Strengthening of governing bodies of the companies of Grupo EPM			
4	🟠	Assess the feasibility of defining a methodology or policy for the succession, appointment and removal of general managers of subsidiaries.	G
5	🟠	Review and complement the independence criteria for members of EPM's Board of Directors.	E
6	🟠	Structure succession policy for EPM's Senior Management.	E
7	🟠	Develop a proposal to establish the position of Vice-Chairman of the Board.	E
8	🟡	Review evaluation methodology for General Managers of subsidiaries.	G
9	🟡🟠	Updating of Fundación EPM's bylaws and governance practices.	G
10	🟡🟠	Assess the feasibility of defining alternative mechanisms for the resolution of conflicts between the governing bodies of Grupo EPM.	G
11	🟠	Analyze the corporate governance instruments for Grupo EPM's board appointment guidelines.	G
12	🟡🟠🟢	Update the bylaws of subsidiaries with respect to the Board of Directors and General Manager, and approve the bylaws of international subsidiaries.	G
13	🟡	Incorporate ESG criteria in the agenda of EPM's Board of Directors in order to contribute to the strengthening of EPM's sustainability model.	E
14	🟡🟠	Propose diversity policy in EPM's Board of Directors.	E

3. Strengthening of intragroup relations			
1	🟠	Adopt the policy on related party transactions in subsidiaries.	G
2	🟡🟠	Update guidelines for signing the minutes of the Governance Agreement.	G
3	🟠	Update procedure for the management of conflicts of interest at EPM.	G

🟡 2023 🟠 2024 🟢 2025 🟢 2026 *E: Covering EPM G: Covering Grupo EPM

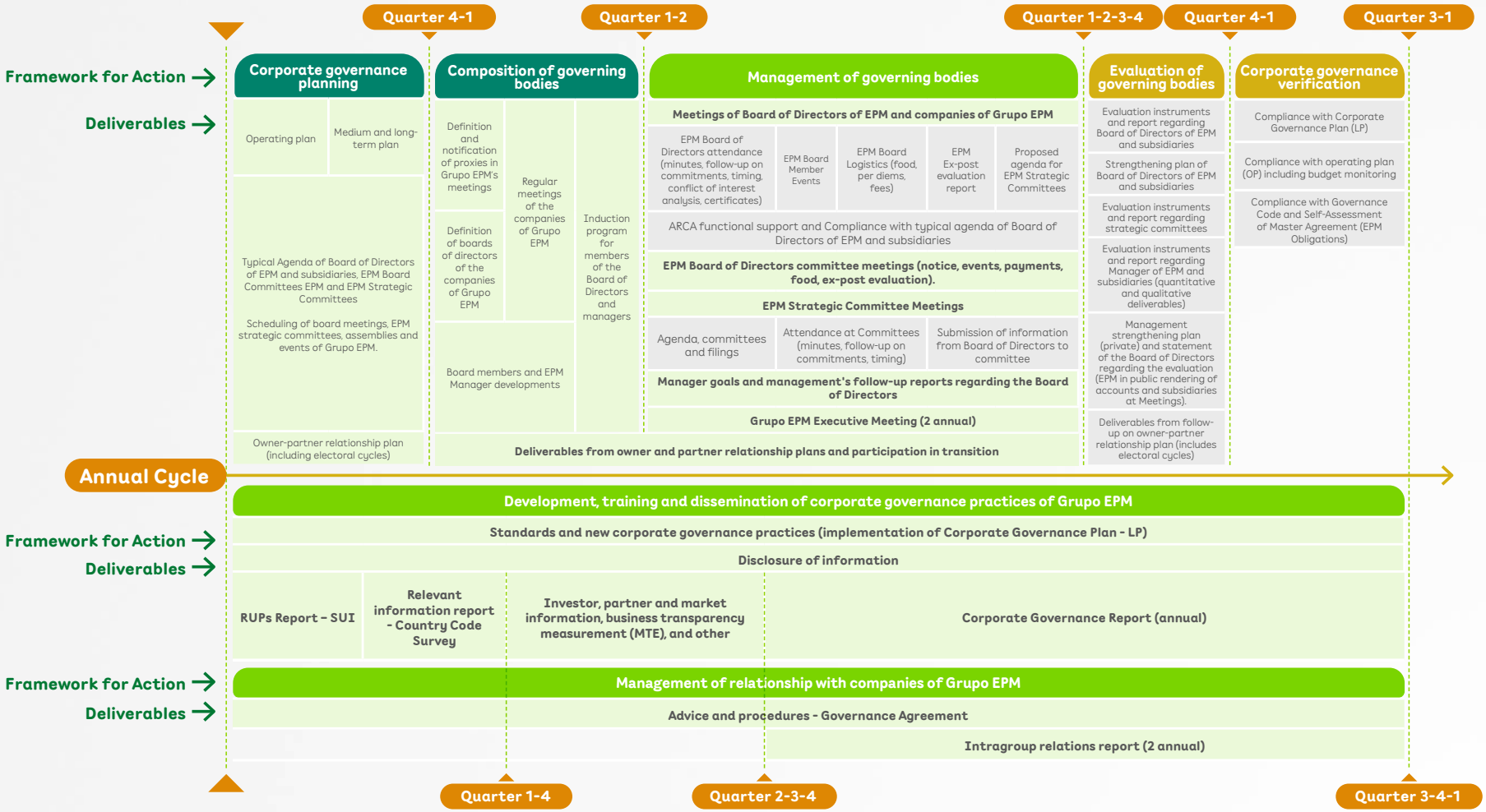
4. Strengthening of Framework for Action, Governance Model and its relations

1	🟠 🟢	Revise governance models in subsidiaries.	G
2	🟡 🟠	Structure a scorecard with key corporate governance indicators and follow-up mechanisms.	G
3	🟡 🟠	Review ESG standard to incorporate improvements in the Annual Corporate Governance Report of Grupo EPM.	G
4	🟠 🟢	Lead the implementation of the information system for Boards of Directors of national subsidiaries.	G
5	🟠	Document the process of defining standards and new corporate governance practices (implementation of the Corporate Governance Plan - LP).	E
6	🟢	Implement corporate governance evaluation proposal.	E
7	🟢	Disseminate Corporate Governance practices.	E
8	🟡 🟠 🟢 🟢	Update EPM's Corporate Governance Code regarding the Investors chapter and according to adjustments in governance practices.	E
9	🟡 🟠	Revise Grupo EPM's Governance System.	G
10	🟡 🟠	Propose corporate governance criteria to be included in EPM's stakeholder Reputation Survey.	E
11	🟡 🟠 🟢	Lead actions to address the material topic of Corporate Governance.	E

🟡 2023 🟠 2024 🟢 2025 🟢 2026 *E: Covering EPM G: Covering Grupo EPM

9.3. Corporate Governance Unit Operating Plan 2023

The Operating Plan consolidates the corporate governance practices and deliverables that have been institutionalized at EPM and its business group, which application is recurrent according to the annual cycle of activities. It is aligned with Grupo EPM's Framework for Actions regarding Corporate Governance.



The results of the follow-up and compliance with each of the practices and deliverables comprising the Operating Plan are detailed in this Report.

‹ Back to content

Sustainability Report 2023

10. Accountability

Grupo·epm

10. Accountability

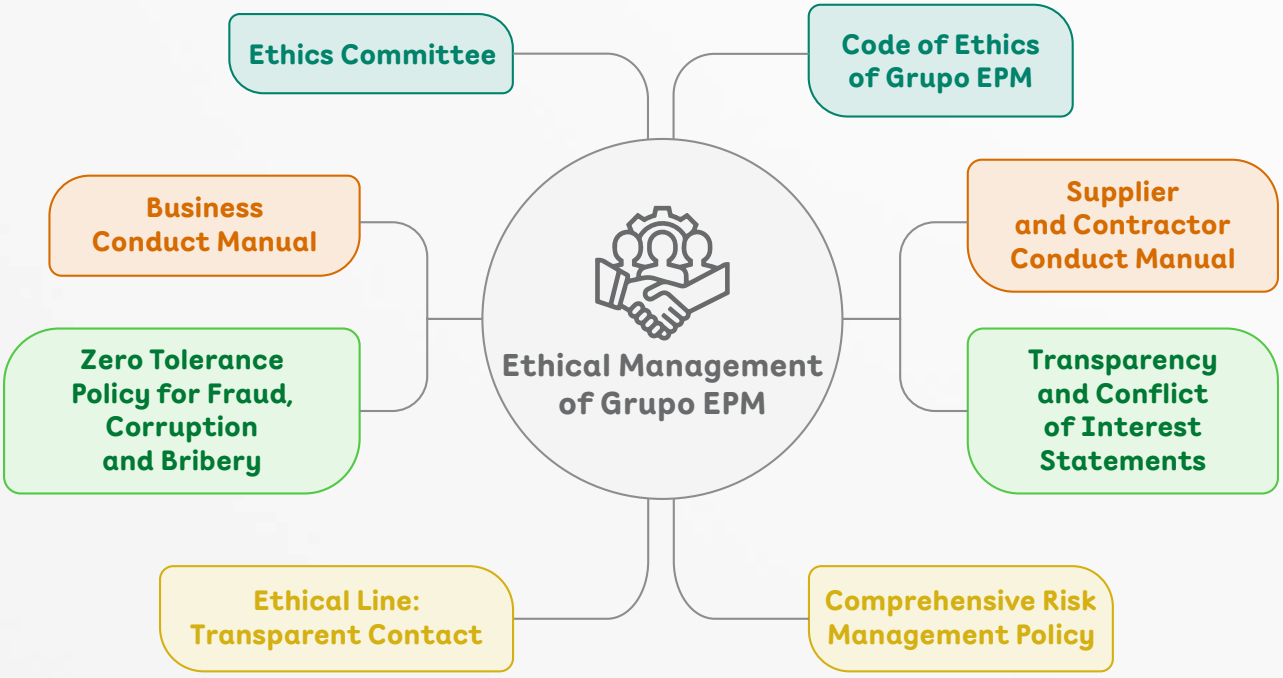
10.1. Ethical management of Grupo EPM

Grupo EPM is aware of the role it plays in society, to which it provides its services. Therefore, it established sustainability as the transversal axis that guides its actions and its strategy for optimizing operations and growth.

This responsibility comes to life in the performance of the team of collaborators that make up each company, since each behavior of the People of Grupo EPM reflects the **principles of ethical action and values** on which it is based.

Transparency is one of the values of the companies of Grupo EPM. It is, therefore, a fundamental pillar for managing markets with high ethical standards, ensuring that no corruption-related activity takes place.

Grupo EPM applies this value to all commercial, tax, accounting, human resources and other tasks and operations, ensuring the generation of wealth, not only for the District of Medellín as owner, but also for society in general, contributing to improve the conditions of equity and well-being of the communities and their environment



In the **material topic of Transparency** of Sustainability Report, we report the details of the actions implemented during 2023, aimed at strengthening ethical and transparent behavior among employees, which are essential to strengthen trust among the different stakeholders with which the Company relates.

In the **material topic of Corporate Governance,** we report on the ethical management specifically aimed at the governing bodies of the companies of Grupo EPM and their decision-making process.

10.2. Ethical management at EPM

EPM has an Ethical Management Model that incorporates the recommendations of MIPG, the Ethical Management Model for State Entities defined by USAID, and the provisions of the General Disciplinary Code.

The Ethical Management Model is transversal to EPM's business actions, it is adopted at all levels of the Organization through formal elements such as the Ethics Committee, Grupo EPM's Code of Ethics, the Business Conduct Manual, among others, and the ethical strengthening agents, ethical management agents and promoters of ethical practices.

Relevant aspects during 2023:

Ethics Committee

Its objective is to "***Promote and lead the implementation of Ethical Management, guiding the consolidation of public service in terms of efficiency, transparency, probity and service to the public by all public servants.***"

In 2023, the Committee, which met 5 times, delved deeper into the analysis of ethical dilemmas based on real cases for EPM, which exercise was carried out with the support of an external advisor. Likewise, it analyzed in detail the conflicts of interest reported at EPM, and recommended to the Compliance Unit the implementation of disclosure actions to encourage servants to take actions aimed at reducing risks and violations. Other topics addressed were:

- Transparent Contact Ethics Line Periodic Report
- Results of 2023 ethical climate survey
- Follow-up on "Road Map
- Follow-up on Committee's commitments

Employee representative on the committee

The **Ethics Committee** is made up of 9 members, including the employee representative.

In 2023, it appointed an employee representative on the Ethics Committee, which position was vacant. For such purpose, the following took place: a) Call and nomination of candidates; b) Evaluation of candidates; and c) Selection.

Once the process was completed, **Juan Carlos Restrepo Benítez**, a civil engineer with a master's degree in water resources development, was appointed as employee representative on the Ethics Committee. Juan Carlos is the director of Water and Sanitation Planning and has 28 years of experience at EPM.

Review of ethical management model

In 2023, a working team was created to review EPM's Ethical Management Model in light of the best national and international practices in this area, in order to identify opportunities to strengthen the model. From the aforementioned review, a proposal was made to adjust the model, incorporating key elements and recommendations from the OECD, USAID and MIPG. At the close of 2023, the proposal was in the validation stage.

Roadmap

Ethical management was mobilized through the Ethics Committee, the ethical agents for strengthening and management, as well as the promoters of ethical practices, based on the roadmap developed for the achievement of the proposed objectives, which focuses on:

- Training and communication
- Incident management
- Continuous improvement
- Verification of compliance

Activities carried out during 2023:

2 **"Tu Cuentas"** Journeys
(Ituango, Rionegro and Santafé de Antioquia)

1 Conference in celebration of the **Public Servant's Day**: **"The public servant: a way to be ethical"**

7 Ethical dilemmas published in **Mi Canal**

1 Publication of screen savers with **corporate values**

5 **ABC** events for **executives** **(86 participants)**

2,817 People completed the virtual course: **"Ethics in Action"**

7,204 People completed the virtual course: **"Ethics V2"**

3,070 **Employees** took part in the **ethical climate** survey

2 Capsule publications for **executives** with an **ethical message**

10.3. Grupo EPM control environment

Country Code 32.5

The legal status of EPM, its 100% state-owned condition, the economic sector in which it operates, and its status as a securities issuer, make it a widely supervised entity by the internal control mechanisms regulated by law and by external control entities, in addition to the mechanisms that have been implemented by its own will in the companies of the business group.

In addition to allowing cohesion among the companies, the control environment allows for policies, processes, procedures, activities and information that guarantee unity of purpose and direction, and also comply with the internal and external legal framework governing such matter; all of this with the purpose of achieving the Group's objectives and MEGA.

Control Environment

Comprehensive Risk Managementa

- It includes the definition of risk policies, as well as the definition and execution of methodologies for their identification, evaluation, measurement, management, monitoring and reporting.
- It requires an internal control system to ensure, by means of controls, that risks are managed in accordance with the defined policy and methodology, which shall be applicable in practice.

+

Internal Control

(Law 87 of 1993) "System integrated by the organizational scheme and the set of plans, methods, principles, standards, procedures and verification and evaluation mechanisms adopted by an entity, in order to ensure that all activities, operations and actions, as well as the administration of information and resources, are carried out in accordance with the constitutional and legal rules within the policies established by management and in response to the goals or objectives set forth".

+

Compliance

Risk management associated with money laundering and terrorist financing, which represent a significant threat to the economic, social and political stability of a country and markets worldwide.

+

Internal Audit

- Performs the evaluation of the internal control system, which is defined as an independent and objective assurance and consulting activity. Its purpose is to help improve the management of the organization and the achievement of its objectives.
- The internal audit activity provides a comprehensive approach to assess and improve the effectiveness of comprehensive risk management, controls and governance.

External financial audit

Assesses the accounting information in general and the financial statements, as well as the rendering of an independent option regarding the reasonableness with which they indicate the financial position of EPM at the end of each fiscal year.

External controls

They are also part of the Company's control environment due to their legal nature, since they seek to guarantee the development of its governance process within the public administration.

10.4. Corporate Audit Management

GRI 2-12

In 2023, 100% of the risk-based **Audit Plan** approved by the Board of Directors and scheduled for Grupo EPM was executed, covering the processes with the highest level of risk and in accordance with the prioritization criteria defined in the methodology.

A total of 184 assurance and consulting, management and development tasks were performed at Grupo EPM to assess the mission, strategic and support processes.

As a result of the audit work, opportunities for improvement were identified that must be managed by the assigned responsible parties through the formulation of improvement plans and verification of compliance and effectiveness, according to the follow-up made by the audit.

*The **control effectiveness indicator** at Grupo EPM during 2023 (follow-up on improvement plans) was 96.4%.*

The **Corporate Audit Model** is intended to perform assurance and consulting activities at Grupo EPM. During 2023, the following activities were carried out:

- Definition and promotion of awareness and communication plans on control culture, with emphasis on the three lines of defense model and improvement plans.
- PAMC (Quality Assurance and Improvement Program): assessment to determine compliance with international auditing standards.
- Development of tools for data extraction, automation and reporting towards continuous auditing.
- Evaluation on structuring of MIPG (Integrated Planning and Management Model).

- Response to and coordination of requirements of the different external control entities, as defined in Decree 648 of 2017.
- Analysis for the implementation of continuous and agile auditing.
- Strengthening of relationship with control and oversight entities..

As a result of the strategic approach of the Corporate Audit for 2024-2027, the following strategic **initiatives were defined:**

Strategic initiatives:
Corporate Audit

- Strengthen relationships of trust with the different stakeholders.
- Align audit work with strategic objectives and risks.
- Implement and use tools that support and optimize the internal audit activity and contribute to the strengthening of the audit activity.
- Maintain permanent communication with management, provide advice on risk, control and governance issues and achieve strategic leadership.
- Develop capabilities and implement continuous auditing AND agile conventional auditing.

10.5. External Audit Plan

Country Code 29.12

Due to its legal nature as an industrial and commercial state-owned company, EPM is not required to have an external financial audit. However, as a good corporate governance practice and in accordance with the entity's commitments with multilateral banks, EPM engaged an external financial audit, which included an opinion on the financial statements, a specific audit to certify EPM's compliance with the commitments assumed in the legal stability contract, and the letters of conformity for the issuance of bonds.

As of May 1, 2022, the private firm Deloitte & Touche Ltda., ranked as one of the four largest auditing firms in the world, was hired as external financial auditor for Grupo EPM. The contract was renewed on May 1, 2023.

Agreement	Purpose	Period (Start - End)	Payments made 2023
CW177800 Deloitte	The contractor is entrusted with the provision of external audit services required by EPM.	01/01/2023 30/04/2023	COP 557,769,466 (excl. VAT)
CW258742 Deloitte	The contractor is entrusted with the provision of external audit services required by EPM.	01/05/2023 31/12/2023	COP 1,028,263,361 (excl. VAT)

The value of the external audit contract for the period from January to December 2023 was COP 1,586,032,827 (excl. VAT).

The fees paid by EPM to Deloitte during the period January-December 2023 represent 1.31% of Deloitte's total income from external audit activity for the same period.

This Corporate Governance Report has been prepared in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (GRI) and has been externally verified by the firm Deloitte, which is the external auditor of EPM and the statutory auditor of the companies of Grupo EPM. The certificate of external verification can be consulted in the social and environmental management report that is part of the Sustainability Report. Country Code 29.7

10.6. External control, supervision and oversight entities

10.6.1. External control entities

They are those bodies to which the Political Constitution of Colombia entrusts the functions related to disciplinary control, defense of the people, tax and political control. The control entities of the Colombian state are: the Office of the Comptroller General of the Republic, the territorial comptroller generals' offices, the Council of Medellín, the Public Ministry, including the Office of the Attorney General of Colombia, the Ombudsman's Office and the District and municipal personería of Medellín.

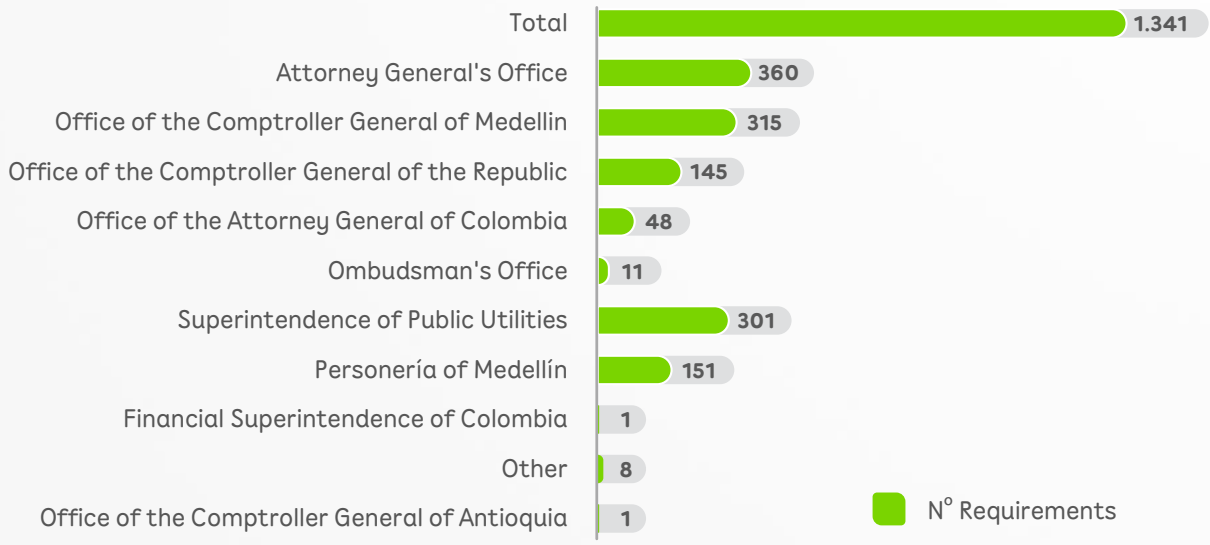
10.6.2. Supervision and oversight bodies

Entities defined in the structure of the Colombian State with supervision and oversight functions in accordance with the services provided by EPM. The Superintendence of Public Utilities and the Superintendence of Finance are part of this group.

In its duty of transparency, EPM is responsible for responding in a timely, complete and relevant manner to the requirements made by the different control agencies and supervision and oversight entities.

EPM addressed, in a responsible and timely manner, during 2023, a total of 1,340 requirements from the different control, supervision and oversight entities.

Requirements of external control, supervision and oversight entities



Note: Others include requirements from the Personerías of municipalities other than Medellín.

The requirements of the Financial Superintendence of Colombia reported in this chapter are different from the requirements and reports generated by EPM as part of the relevant information.

10.7. Comprehensive risk management

Country Code 32.5; 33.3 – IV. b) c) d); GRI 2-12

The comprehensive risk management report is a section of the "Our Group" chapter of the Sustainability Report, which contains the definitions, progress and challenges of Grupo EPM in this regard.

10.8. Integrated Planning and Management Model - MIPG

Country Code 32.5; 33.3 – IV. a)

The **Integrated Planning and Management Model** is a tool that simplifies and integrates the administrative development and quality management

systems and articulates them with the Internal Control System, to make processes within the entity simpler and more efficient according to Decrees 1499 and 648 of 2017 of the Administrative Department of Public Service - DAFP.

It is a reference framework for directing, planning, executing, monitoring, assessing and controlling the management of public entities and agencies, in order to generate results that meet development plans and solve the needs and problems of citizens, with integrity and quality of service.

The model focuses on the practices and processes used by public entities to transform inputs into results that produce the desired impacts, i.e., institutional management and performance generating public value.

MIPG works through three components: institutional framework, operation and measurement.

At EPM, the responsibility for the Integrated Planning and Management Model - MIPG, corresponds to the legal representative (Decree 2424 dated September 8, 2023), while its institutional framework is represented by both the CIGD (Institutional Management and Performance Committee) and the CICCI (Institutional Internal Control Coordination Committee).

MIPG operates through the implementation of 7 dimensions. Each dimension acts in an articulated and intercommunicated manner, grouping management and institutional performance policies by area that allow the model to be easily and adequately implemented.

Measurement of the level of implementation of MIPG is carried out with the Single Management Reporting and Progress Form - FURAG, consisting of a self-completion questionnaire housed in an online application, enabled annually for data collection. EPM, as a territorial public entity, identified opportunities for improvement and focused on satisfying the needs and problems and guaranteeing the rights of all citizens.

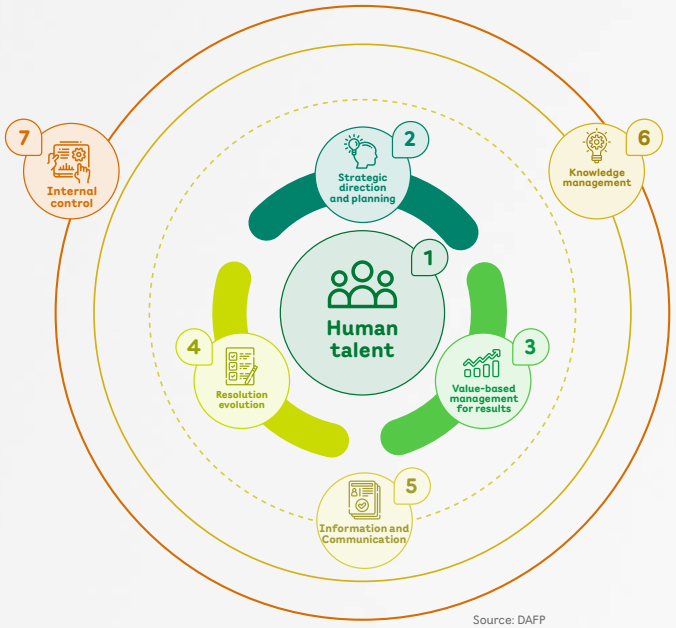
According to the results of the FURAG 2022 measurement, the policies with the highest scores in EPM are Organizational Strengthening and Process Simplification, Strategic Guidance and Institutional Planning, and Knowledge Management and Innovation. And, those in which improvement actions should be implemented are the streamlining of procedures, digital government, citizen service and citizen participation in public management.

Coordination of the implementation of MIPG at EPM is the responsibility of the Business Planning and Monitoring Division. The dimension managers are distributed as shown below:

Operation - Roles and Responsibilities of MIPG in EPM

Operation

MIPG operates through 7 dimensions that group institutional management and performance policies implemented in an articulated and intercommunicated manner.



Source: DAFP

1 Human talent	2 Strategic direction and planning	3 Value-based management for results	4 Resolution evolution	5 Information and Communication	6 Knowledge management	4 Internal control
VP. Employee Experience and Organizational Solutions	VP. Sustainability and Strategy	VP. Employee Experience and Organizational Solutions	VP. Sustainability and Strategy	VP. Communication and Corporate Relations	VP. Employee Experience and Organizational Solutions	VP. Sustainability and Strategy
	VPE. Finance and Investments	VPE. Business Management		VPE. New Business, Innovation and Technology	VPE. New Business, Innovation and Technology	VP. Risks
	VP. Supplies and Shared Services			VP. Supplies and Shared Services		VP. Communication and Corp. Relations
						VP. Audit

Measurement

On November 29, 2022, the Institutional Management and Performance Council approved the start of an update of the MIPG that will allow it to continue to scale, evolve, improve and move from systems, model, dimensions, policies, guidelines, self-diagnostics to a model based on capabilities with identified elements to measure it, view performance and reflect on the tools we are providing, and such that each may make a retrospective review of how many guides, manuals or updates we have produced.

10.8.1. Evolution of Institutional Performance Index Results

The results of the **Institutional Performance Index - IPI** for EPM from 2018 to 2022 are shown below:

YEAR	2018	2019	2020	2021	2022
IDI	77	84	78.2	82.8	85.8

The above results are shown on a scale from 1 to 100, with 100 being the maximum score to be achieved, and places EPM in quintile 5, which means that it is in the group of entities with the highest scores.

The indices by dimensions for 2022 are as follows:

- **D1** Human Talent 74.8
- **D2** Guidance and Planning 92.1
- **D3** Results Management 84.6
- **D4** Results Evaluation 86.8
- **D5** Information and Communication 87.5
- **D6** Knowledge and Innovation Management 96.0
- **D7** Internal Control 87.3

10.8.2. Progress on MIPG in 2023

- Creation of a working group to complete the FURAG for 2022 with the participation of professionals from Corporate Auditing, Risks, Organizational Development, Corporate Identity, and Business Planning and Monitoring.
- Appointment of responsible parties by dimension and performance policies in order to complete and provide evidence for the FURAG questionnaire.
- Updating and approval at Management Committee (Institutional Management and Performance Committee) of the Second Line of Defense consisting of 20 executives and 5 management committees in their advisory role.
- Definition of the periodic report by the Second Line of Defense to the Management Committee, on the status of the management of key aspects of success, on which this line of defense must follow up and monitor: engagement, environmental management, project management, planning and/or follow-up, human talent and organizational development, legal compliance, delegations, document management, risk management, financial control, information and communication, ICT and IT security, and asset management.
- Review and adjustment of Internal Control policy, considering its design, evaluation and permanent improvement and its articulation with the Group's directive and key mission, "Control".
- Internal control groups together a set of policies, or practices and instruments which purpose is to enable the organization to carry out the activities that will lead it to achieve the proposed results and materialize the decisions set forth in its institutional planning. Internal control is the key to reasonably ensuring that the other dimensions of the MIPG fulfill their purpose.

  For the implementation of the Internal Control System at EPM, the starting point was the objectives, the MECI (Internal Control Standard Model), the units responsible for leading the components of the model and the scheme of lines of defense, as shown below:

Dimension 7 MIPG: Internal Control

It groups together a set of policies, or practices and instruments which purpose is to enable the organization to carry out the activities that will lead it to achieve the proposed results and materialize the decisions set forth in its institutional planning. Internal Control is the key to reasonably ensuring that the other dimensions of the MIPG fulfill their purpose.

Internal control

Objectives

Increase
Citizen confidence in the public entity.

Protect resources
Seeking their adequate administration in the face of possible risks affecting them.

Guarantee
The correct evaluation and follow-up of organizational management.

Ensure
The entity has adequate planning processes and mechanisms for organizational design and development in accordance with its nature and characteristics.

Internal Control System Model

MESI
Decreto 1083

Through its 5 components, it will allow the entity to establish the effectiveness of controls designed from the structure of the MIPG dimensions.

Source: *COSO III (2013)*

Responsible Parties

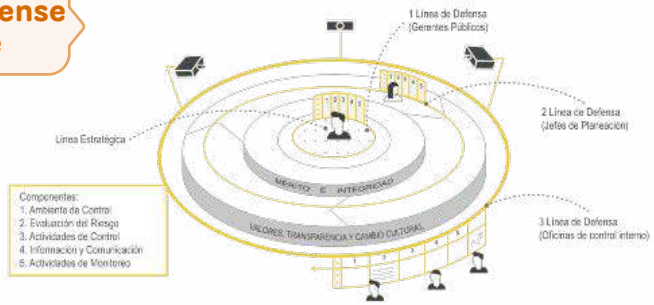
General Manager

Audit Committee
Institutional Internal Control Coordination Committee

Vp. Sustainability and Strategy | Vp. Corporate Audit | Vp. Risks | VP Communications

EPM servants at all levels

Lines of Defense Scheme



The main axis is the Lines of Defense Scheme, where the responsibilities for control will be defined.

**CICCI: Institutional Internal Control Coordination Committee*

The results of the FURAG related to the Internal Control Policy for this year indicate significant progress in the different components and in the independent evaluation of the internal control system.

	Policy Indicators	2018	2019	2020	2021	2022
C1	**Internal Control** Enabling environment for the exercise of control	74,5	90,4	75,0	77,0	85,8
C2	**Internal Control** Strategic risk assessment	70,3	75,9	63,5	66,6	92,3
C3	**Internal Control** Effective control activities	73,2	81,4	69,6	77,0	83,7
C4	**Internal Control** Relevant and timely reporting and communication for control	72,7	94,9	78,4	81,8	94,2
C5	**Internal Control** Systematic and improvement-oriented monitoring activities	75,7	85,6	65,7	70,9	88,9
	Internal Control Independent evaluation of internal control system	68,5	97,4	0,0	70,0	78,2

10.8.3. Evaluation of Internal Control System

The Corporate Audit Vice-Presidency, in compliance with Article 156 of Decree 2106 of 2019, issued by the DAFP, performs a semi-annual independent evaluation report on the status of the Internal Control System, which is supported by the DAFP methodology and which results are published on EPM's website and can be consulted *Here.*

10.9. Compliance

Country Code 32.5

The compliance report is detailed in the material topic of Transparency of Sustainability Report, where the transparency practices applied at Grupo EPM and its main achievements and challenges during the period are disclosed.

‹ Back to content

Sustainability Report 2023

11. Schedules

Grupo·epm

11. Schedules

11.1. Schedule 1

Background on the Master Relations Agreement

The **Master Relations Agreement,** signed in 2007 between EPM and the Municipality of Medellín (now the District), establishes the guiding principles of the agreement, the obligations of the District of Medellín, the obligations of EPM and its Sustainability Model, in accordance with the commitments assumed by EPM in the framework of its voluntary adherence to the United Nations Global Compact in 2006.

It also reflects the common goal of these two entities to generate business management conditions that enable sustainability and the generation of value for stakeholders, especially to make EPM a viable and sustainable source of income for the city of Medellín.

Owner
Company Relation

epm® — **Obligations** — **District of Medellín**

- Comply with financial management indicators.
- Transfers to the Municipality.
- Settlement of Transfers.
- Appropriate communication mechanisms.
- Transparency vis-à-vis the community: in hiring and selection of servants (based on defined profiles and competencies).
- Permanent External Audit.
- Corporate Social Responsibility Policies.
- Support to the Municipality with EPM human resources through special circumstances (agreements).

- Respect administrative and financial autonomy.
- Exercise the role of owner through a single formal channel: EPM's Board of Directors.
- Selection of an independent Board of Directors with pre-established profiles.
- Manager selection taking into account criteria of experience, suitability, professionalism, honesty and moral solvency.
- Not to influence or participate, directly or indirectly, in the selection of servants, except for those whose approval or disapproval corresponds to the Board of Directors.
- Not to influence or participate, directly or indirectly, in engagement processes.
- Process the delegation of COMFIS to the Board of Directors to approve budget.
- EPM's participation in the development plan (commitments consistent with the plans approved by the Board of Directors).

11.2. Schedule 2

Curriculum vitae of members of EPM's Board of Directors

Daniel Quintero Calle

Mayor of Medellín

Chairman of EPM Board of Directors
(From Jan/01/2020)
Age Range: 30-45 years
PEP: Yes
Independent: No

Electronic engineer, finance specialist, Master of Business Administration (MBA). Experience in the public-private sector.

Education

- **Electronic Engineer** Universidad de Antioquia (Medellín-Colombia)
- **Specialization in Finance** Universidad de los Andes (Bogotá-Colombia)
- **Master of Business Administration (MBA)** Boston University (EE. UU)

Other studies

- **Course for Global Leaders in Public Finance Management** Harvard Kennedy School of Government

Work Experience

- **Vice Minister of Information Technology and Telecommunications** (2016-2017)
- **Director INNpulsa Colombia** (2015-2016)
- **Director Fundación Piensa Verde** (2012-2014)
- **Management Advisor Intrasoft S.A.** (2005-2015)

Acknowledgments

- Carlos Lemos Simmons Order for Transparency, Democracy and Social Development
- Medal San Gabriel Arcángel National Army

Oscar de Jesús Hurtado Pérez

Mayor of Medellín

Chairman of EPM Board of Directors
(From September/30/2023 - Until December/31/2023)
Age Range: 55-60 years
PEP: Yes
Independent: No

Public Accountant, specialist in Public Management, with experience in the public sector.

Education

- **Public Accountant** Universidad de Antioquia (Medellín-Colombia)
- **Specialist in Public Management** Universidad de los Andes (Bogotá-Colombia)

Work Experience

- **Government and Cabinet Management Secretary** (Current)
- **Secretary of Finance of the Mayor's Office of Medellín** (2020- 2023)
- **Representative to the Chamber of Representatives of Antioquia** (2014 - 2018)
- **Secretary General of the Ethics Commission of the Congress of the Republic** (2010 - 2013)
- **Representative to the Chamber of Representatives of Antioquia** (2006 - 2010)
- **Mayor of the municipality of Tarso** (2001 - 2003)

Bernardita
Pérez Restrepo

Board Member
(From August/25/2020)
Age Range: 60-65
PEP: Yes
Independent: Yes

Lawyer from Universidad de Antioquia, specialist in philosophy of Law from the University of Castilla La Mancha (Spain); student of master's degree in Political Philosophy at the Institute of Philosophy of Universidad de Antioquia. University professor at the universities of Antioquia, Pontificia Bolivariana, Medellín, Nacional and Libre.

She has lectured on constitutional law, political law and administrative law. She has extensive experience in the public sector as a consultant at the Superior Council of the Judiciary, advisor to the presidency of the Senate of the Republic, television advocate at Teleantioquia, co-judge of the Superior Court of Medellín, co-judge of the Contentious Administrative Court, co-judge of the Constitutional Court and academic collaborator in non-governmental organizations.

In the private sector she has been advisor, consultant and board member of different companies in the infrastructure sector, as well as academic collaborator of several NGOs.

She is a member of Amtex S.A.'s Board of Directors.

Jorge Iván
Palacio Palacio

Board Member
(From August/17/2020)
Age Range: 70-75
PEP: Yes
Independent: Yes

Colombian lawyer and jurist, former president of the Constitutional Court of Colombia between 2013 and 2014. Lawyer from Universidad Autónoma de Medellín and Master in Law from Universidad Sergio Arboleda. In his career he has served as a magistrate of the Constitutional Court and of the Supreme Court of Justice and as a co-judge of such entity. He has been a judge in Medellín and different municipalities in the department of Antioquia, has been a national and international lecturer, professor at Universidad de los Andes, independent legal advisor and advisor to the Ministry of Labor and Security. Not a member of other Boards of Directors.

Pablo Felipe Robledo del Castillo

Board Member
(From August/21/2020)
Age Range: 50-55
PEP: Yes
Independent: Yes

Lawyer, specialist in civil procedural law and candidate for a master's degree in contractual and tort liability and State liability from Universidad Externado de Colombia. In the public sector, he has served as Superintendent of Industry and Commerce, Vice Minister for the Promotion of Justice, Minister of Justice and Law (acting), Vice Minister of Criminal Policy and Restorative Justice (acting), Director of the National Agency for the Legal Defense of the State (acting), Vice Minister of Justice and Law, Governor of Guaviare (acting), among others. In the private sector he has worked as a litigator, advisor, consultant and partner of law firms. Teaching experience in public and private educational institutions.

He participated as alternate chairman of the Review Commission of the General Procedural Code Bill, alternate chairman of the Interinstitutional Commission for the Constitutional Reform of Justice, member of the Drafting Commission of the National and International Arbitration Bill, among others.

He is a member of the Executive Committee of the Colombian Tennis Federation, FCT.

Olmer Orlando Palacio Garzón

Board Member
(From August/25/2020)
Age Range: 30-45
PEP: Yes
Independent: Yes

Bachelor's Degree in Preschool Education from Universidad San Buenaventura.

Control member of residential public utilities of the city of Medellín - commune three.

Has worked as a teacher and social manager.

Not a member of other boards of directors.

Gildardo Antonio Correa Salazar

Board Member
(From August/25/2020)
Age Range: 66-75
PEP: Yes
Independent: No

Control Member of residential public utilities of the city of Medellín-commune 1 since 2013.

Attended the corporate governance program for board members at the ICGC, and Corporate Governance, realities, challenges and recommendations for successful assemblies and boards of directors in public utilities companies at Universidad de los Andes.

- **Neighborhood entertainer of the local development plan commune 1 (PLDC1)** 2006-2013
- **Neighborhood delegate to the participatory budget (PB) of commune 1** 2005-2013
- **Trainer of community action trainers** 2008-2012
- **Coordinador de la Comisión de convivencia y participación de la comuna 1 del PP** 2007-2008
- **Twice president of Junta de Acción Comunal Popular 1** 1996-2000
- **Councilman JAL (Junta Administradora Local) of commune 1** 1995-1997
- **COPACO Board Member** 1994-1997
- **General Secretary of the Informal Economy Union** 1966 – 1968

Not a member of other boards of directors.

Sergio Andrés Restrepo Muñoz

Board Member
(From May/19/2021)
Age Range: 30-45
PEP: Yes
Independent: No

Electrical Engineer from Universidad de Antioquia, with postgraduate degrees from Universidad Externado de Colombia in Regulation and Management of Information and Communications Technologies, and in Regulation of Electric Energy and Gas. He passed the Innovation and Leadership in Government (ILG) program at Goeorgetown University in Washington D.C., studied administration and project management at Universidad de La Salle in Bogota, the specialized program in planning and cost and expense reduction of the Chamber of Commerce of Bogota, renewable energies and photovoltaic installations at Universidad Nacional de Colombia, as well as a Certificate in boards of directors with the ICGC.

He is currently pursuing a master's degree in electrical engineering-sustainable energy management at Universidad Jorge Tadeo Lozano.

Experience in policy and structuring of public procurement processes, public utilities, energy markets and implementation of electric power, renewable energy and information and communications technology projects.

Professional services advisor at the Ministry of Information and Communications Technology, and has accompanied the National Agency of Public Procurement-Colombia Compra Eficiente in issues related to the structuring of technical specifications and IT standards. He has also worked as energy supervisor at American Tower Corporation and as a project professional at Furel S.A.

He is currently a control member of the Good Neighbor Social Development and Control Committee, through which the benefits related to the Vital Minimum Drinking Water program, among others, are promoted.

In addition, he is a member of the Board of Directors and Audit Committee of UNE EPM Telecomunicaciones S.A and Colombia Móvil S.A E.S.P. He was a permanent guest member of the Board of Directors of Distribuidora Eléctrica DelSur S.A de C.V-Grupo EPM.

Omar Flórez Vélez

Board Member
(From August/17/2020)
Age Range: 70-75
PEP: Yes
Independent: Yes

Former Mayor of Medellín and former chairman of the Board of Directors of EPM. He is an administrative engineer from Universidad Nacional and a specialist in business management and competitiveness. He has served as manager of Fábrica de Licores de Antioquia, Secretary of Finance of Antioquia, Government Secretary of Antioquia, Vice Minister and Minister of Communications, representative to the Chamber of Representatives and senator of the Republic, president of the National Association of Municipalities, among other positions in the private sector.

Not a member of other boards of directors.

Erez Bastiaan Ernest Zaionce

Board Member
(From June/28/2022)
Age Range: 30-45
PEP: Yes
Independent: No

Bachelors of Arts degree in social sciences and humanities from the University of Utrecht, The Netherlands, Master of Laws (cum laude) in international law from the same university.

He has served as director of the Center for the Fourth Industrial Revolution in Colombia (World Economic Forum Affiliate Center), regional director of LATAM, Manatech, Grupo Mana, Miami, USA, director of special projects, Iscol Investments/Pacific Fruits, Grupo Mana, Medellín, Economic Attaché for Colombia and the Caribbean at the Embassy of Israel in Bogota, Director in the Department for China and the OECD Department, Foreign Trade Administration, Ministry of Economy, Israel. Liaison Officer to the European Parliament, Mission of Israel to the EU (Brussels, Belgium), and assistant to MP Amira Dotan (Jerusalem, Israel).

He was a member of the Board of Directors of UNE-TIGO and is a member of the Advisory Board of Technoart and Flapz. Not a member of other boards of directors.

11.3. Schedule 3

Curriculum vitae of members of EPM's Senior Management

Jorge Andrés Carrillo Cardoso

General Manager of EPM
(From April/14/2021 - Until December/28/2023)
Age Range: 30-45

Civil and environmental engineer, with a master's degree in environmental management from Universidad de Los Andes. With extensive experience as a senior government official and as a business consultant, leading the formulation of public policies, regulation, projects and programs for public and private sector entities in sustainable management, water security and circular economy, structuring projects and strategic direction of public-private coalitions with excellent high-level relationship and obtaining results.

He has been advisor to the Presidency of Andesco, Project Manager of the Water for Colombia Coalition of TNC (The Nature Conservancy); manager of the construction services division of Grupo Constructor Normandia S.A.; vice minister of Water and Basic Sanitation of the Ministry of Housing, City and Territory.

Chairman of the Water and Basic Sanitation Regulatory Commission (CRA); member of the Board of Directors of the Colombian Geological Service; member of the National Water Council; member of the National Environmental Council; and member of the Intersectoral Commission on Climate Change. Consultant to the Senior Presidential Advisor for Regions (Presidency of the Republic); coordinator of environment and water resources for Usaid's Orinoquia Master Plan; delegate superintendent for water, sewage and sanitation (Superintendence of Residential Public Utilities); consultant to the Business Management Division of the United Nations Development Program (UNDP).

Daniel Arango Ángel

Executive VP Business Management
(From January/29/2020 - Until January/31/2023)
Age Range: 45-50

Business administrator, management specialist and master in administration from Universidad EAFIT.

He has held positions in private entities such as account executive at CI NICOLE, CEO of the company Arango Angel Daniel, director of business competitiveness at the Chamber of Commerce of Pereira, provided professional services at the Ministry of Commerce, Industry and Tourism for the monitoring, implementation and coordination of the policy of business formalization in Colombia; he also served as technical director and vice minister of business development, senior associate consultant at Centro de Formación y Estudios en Liderazgo y Gestión S.A. He served as executive vice president of Business Management until January 2023.

Gabriel Jaime Betancourt Mesa

Executive VP Projects and Engineering
(From March/09/2020 - Until January/05/2023)
Age Range: 60-65

Civil engineer from Universidad de Medellín, specialist in information systems from Universidad EAFIT, he held positions in Sociedad de Turismo de Antioquia, Turantioquia, as planning engineer and head of planning.

At EPM, he has held different positions as engineer, department head, deputy manager of administration and finance, manager of Energy Distribution, director of International Growth, executive vice president of Strategy and Growth. He was Vice President of Projects and Engineering until January 6, 2023.

Santiago Ochoa Posada

Executive VP Business Management
(From February/01/2023)
Age Range: 55-60

He is a civil engineer, specialist in ISO 9000 quality management systems, with more than 25 years of experience in planning, operation, maintenance and optimization of water systems. Since 1994 he has been with EPM, and has held management positions such as: head of the Aqueduct Operations Area, Deputy Manager of Water Operations and Maintenance, director of Water Operations and Supply Chain Front in the program, Grupo EPM Sin Fronteras.

Santiago Ochoa Posada is Vice President of Water and Sanitation, where he is leading the management of the Group's water supply and wastewater management business plans to ensure the achievement of objectives. He also served as head of the planning and control section and civil engineer at Aqueductos y Alcantarillados de Antioquia Aquantioquia, in 1993-1994.

He has served as chairman of the Board of Directors of Tecnología Intercontinental SAPI (Sociedad Anónima Promotora de Inversión) de CV (Variable Capital) - Ticsa, Aguas de Antofagasta - Adasa, EPM Capital México, Aguas de Malambo, Aguas Regionales, Empresas Varias de Medellín Emvarias, Aguas del Oriente and Hidrosur.

During 2023, he served as vice president of Business Management, and was responsible for the vice presidencies of: Energy Generation, Transmission and Distribution, Water and Sanitation, Marketing and Gas, as well as the Regulation, Trébol and Urabá divisions.

Luisa María Pérez Fernández

VP Sustainability and Strategy
(From July/06/2022 - Until February/05/2023)
Age Range: 40-45

She is a civil engineer from Universidad EIA, with a master's degree in civil engineering with emphasis on water resources from Universidad de los Andes, specialist in economics from Universidad Eafit and a PhD student in economics at the same university.

She has more than 20 years of work experience as a civil engineer, director of regulation, director of Water and Sanitation planning, administrative manager and acting vice president of Strategy and Planning. Her professional career includes advisory services for the Water and Sanitation Regulatory Commission, management positions within public and private utilities companies, advisory services in tariff analysis and investment plans; for several years she has been a member of national and international boards of directors.

She was selected as a student in the academic excellence program of Universidad de los Andes.

Wilder Wiler Echavarría Arango

VPE Projects and Engineering
(From February/03/2023)
Age Range: 30-45

Civil Engineer from Universidad Nacional de Colombia, specialist in Project Management from Universidad del Tolima, specialist in Senior Public Management, specialist in public service and Human Resources, specialist in Government and Local Development from Escuela Iberoamericana de Altos Estudios en Gobierno Local and is currently pursuing a Master's Degree in Local Public Management.

He has served as general manager of the Urban Development Corporation of Medellín and as executive director of Provincia del Agua, Bosques y el Turismo del Oriente Antioqueño, he has also been in the private sector as CEO of Engineering and Architecture Companies and planning and project advisor in EATs (Territorial Associative Schemes). He has 19 years of experience in the public and private sectors and is an advisor in urban planning and territorial development.

Ana Milena Joya Camacho

VP Sustainability and Strategy
(From February/06/202)
Age Range: 40-45

Civil Engineer from Universidad Industrial de Santander, specialist in Environment and Project Management. She has served as Secretary of Environment of the Municipality of Medellín, Deputy Environmental Director of the Metropolitan Area of Valle de Aburrá and as environmental consultant in Regional Autonomous Corporations of Antioquia in environmental planning, comprehensive management of water resources and protected areas.

A trajectory of about 17 years, contributing her knowledge, professionalism and experience in the care and preservation of the environment, natural resources and sustainable development of the department and Grupo EPM. At EPM, 14 years ago she joined as an Environmental Professional in Hydrometry and Instrumentation, she was an Environmental and Social professional of the Environmental and Social Unit of Projects and Engineering, and in the most recent years she occupied the Environmental and Social Management, where she led the environmental and social management of energy, water and sanitation utility projects and in 2018 she coordinated the contingency of the Ituango Hydroelectric Project.

Jhonatan Estiven Villada Palacio

VP Legal Affairs
(From September/06/2021)
Age Range: 30-40

Lawyer from Universidad de Medellín, specialist in labor and social security law from Universidad Pontificia Bolivariana, specialist and master in public procurement from Universidad de Medellín, worked as management advisor of Adsorbentes de Colombia S.A., worked as lawyer at Colegio Mayor de Antioquia, associate lawyer at Martha Morales law firm and legal representative of the condominium "Urbanización Reserva del Seminario".

Specialized professional of the Human Rights Unit, in the partnership agreement entered into between the Government Secretary and Human Rights of the Mayor's Office of Medellín, the Personería and Universidad de Medellín; lecturer in diploma courses on real estate law and the new administrative procedure code; provision of professional services for legal support in the execution of contracts and inter-administrative agreements entered into by Institución Universitaria Pascual Bravo and advisor to the public procurement processes of Corporación Interuniversitaria de Servicios.

Lawyer, advisor to the specialized transportation cooperative, Sertrans; has served as advisor and delegate spokesman assigned to the Administrative Oversight Group of the Unit for the Oversight of Official Conduct in the Personería of Medellín, as well as in the Office of the Secretary and technical director in the Mayor's Office of Medellín. He currently serves as Vice President of Legal Affairs of EPM.

Juliana Carolina Zapata Molina

VP Human Talent and Organizational Development
(From September/06/2021)
Age Range: 40-45

Civil engineer from Universidad Pontificia Javeriana, MBA from IE University in Spain. She has held positions at Producciones A&Z S.A.S. as project engineer; at Cemex Colombia S.A. she served as human resources manager, head of business development, information management and events coordinator; at Constructora en Obra Verde S.A.S. she served as planning director. At the Ministry of Housing, City and Territory, she provided professional financial and administrative support services. At Karcher S.A.S. she provided consulting and training services to employees in the Customer Centric strategy. At Andesco, she supported the design and development of Andesco's Strategic Plan and the implementation of the expense budget and cash flow follow-up process; there she held the position of planning and knowledge manager.

Mabel Rocío López Segura

VP Communications and Corporate Relations
(From May/04/2021)
Age Range: 40-45

Media executive and journalist from Universidad Pontificia Bolivariana. Lawyer from Universidad Cooperativa de Colombia. Specialist in administrative law from the Universidad Autónoma Latinoamericana and master's degree in political studies from the Universidad Nacional de Colombia. She held positions at Fundación EPM as a media executive, at Emvarias as a communications specialist, at Global Media Telecomunicaciones S.A. and Cosmovisión as editor-in-chief and host. In addition, she has been part of a Legislative Work Unit in the Chamber of Representatives and of a Support Unit in the Council of Medellín.

She served as manager of Teleantioquia and Telemedellín channels. She is currently Vice President of Communications and Corporate Relations of EPM.

María Cristina Toro Restrepo

VP General Secretariat
(From May/10/2021)
Age Range: 50-55

Lawyer from Universidad de Caldas with specialization in commercial law, tax law and customs law from the same university. She also studied a specialization in mining and energy law at Universidad Externado de Colombia. She has served as judicial assistant and secretary of the Sectional Commission of Judicial Discipline of Caldas, legal director of Aguas de Manizales S.A. E.S.P., advisor and general secretary of Empresa de Energía de Bogotá S.A. E.S.P.

At Central Hidroeléctrica de Caldas, CHEC, she served as alternate legal representative for legal and administrative matters, general secretary, second alternate manager and acting manager. She worked at EPM as Labor Relations Management officer and as general secretary at Empresa de Transporte Masivo del Valle de Aburrá Ltda.-Metro de Medellín. She was head of the legal advisory office at Metro de Bogotá and currently heads the General Secretariat of EPM.

Andrés Felipe Uribe Mesa

VP Risks
(From May/04/2021)
Age Range: 30-40

Lawyer and master in global administration from Universidad EAFIT, he has held positions at: Almacenes Éxito S.A. as analyst and head of the Risk, Insurance and Litigation Department; for JEU Seguros he worked as operations manager. He is currently EPM's Vice President of Risks.

Gustavo Alejandro Gallego Hernández

VP Corporate Audit
(From 05/Jan/2022)
Age Range: 45-50

Lawyer from Institución Universitaria de Envigado, with a Bachelor's Degree in Special Education from Universidad de Antioquia. He holds a master's degree in State Law with emphasis on regulation and management of telecommunications and ICT from Universidad Externado de Colombia.

With more than 20 years of work experience, he has worked in the public and private sectors, where he has held positions as manager of Emvarias, a subsidiary of Grupo EPM; assistant comptroller in the Office of the Comptroller General of Medellín, municipal spokesman of La Estrella and delegate spokesman in the Personería of Medellín, among others.

Carlos Enrique Londoño Amariles

VP Supplies and Shared Services
(From February/21/2022)
Age Range: 55-60

Industrial Engineer from Universidad Autónoma Latinoamericana, specialist in Management with emphasis on human talent from Universidad Pontificia Bolivariana, specialist in Financial Management from Fundación Universitaria Ceipa, graduate of the Financial Management program from Escuela de Administración de Empresas in Barcelona, Master in Government and Public Policy from Universidad Eafit.

He worked as head of the Financial Resources Department at the Ministry of Education and Culture, director of the Administrative Division of the same agency; financial and administrative vice president of Emtelco; he served on secondment as administrative undersecretary of the Ministry of Education, head of the Budget Department in the Financial Division of the Ministry of Finance and secretary of Finance of the municipality of Sabaneta.

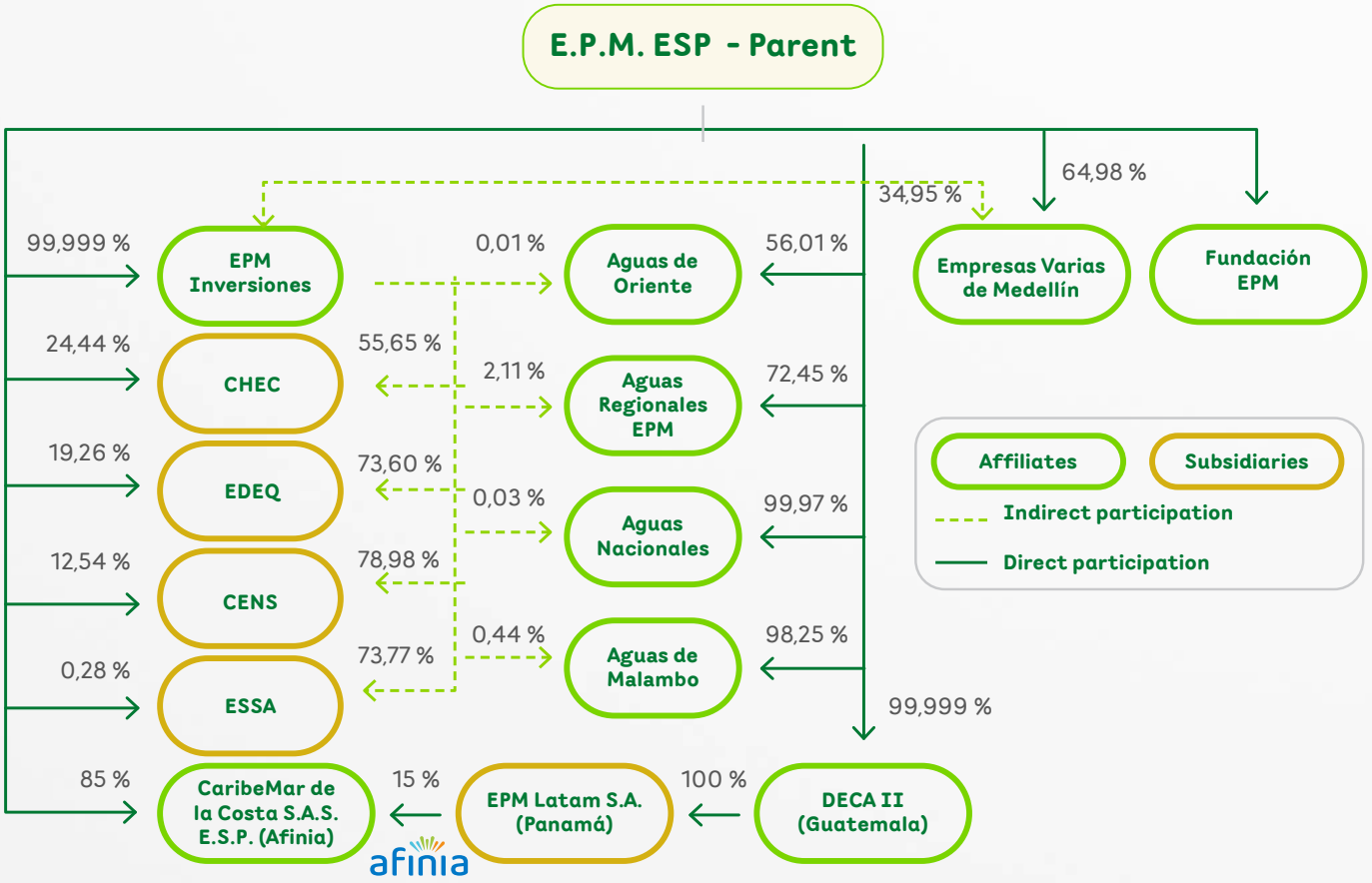
He also served as manager of the industrial and commercial state-owned company that promotes projects in Sabaneta, technical director of Planning and administrative and financial vice president of Instituto Tecnológico Metropolitano, ITM; administrative and financial director and general manager of Empresa de Vivienda e Infraestructura de Antioquia-VIVA. He was in charge of the Administrative and Financial Sub-management of Fábrica de Licores y Alcoholes de Antioquia, FLA. He currently serves as vice president of supplies and shared services at EPM.

11.4. Schedule 4

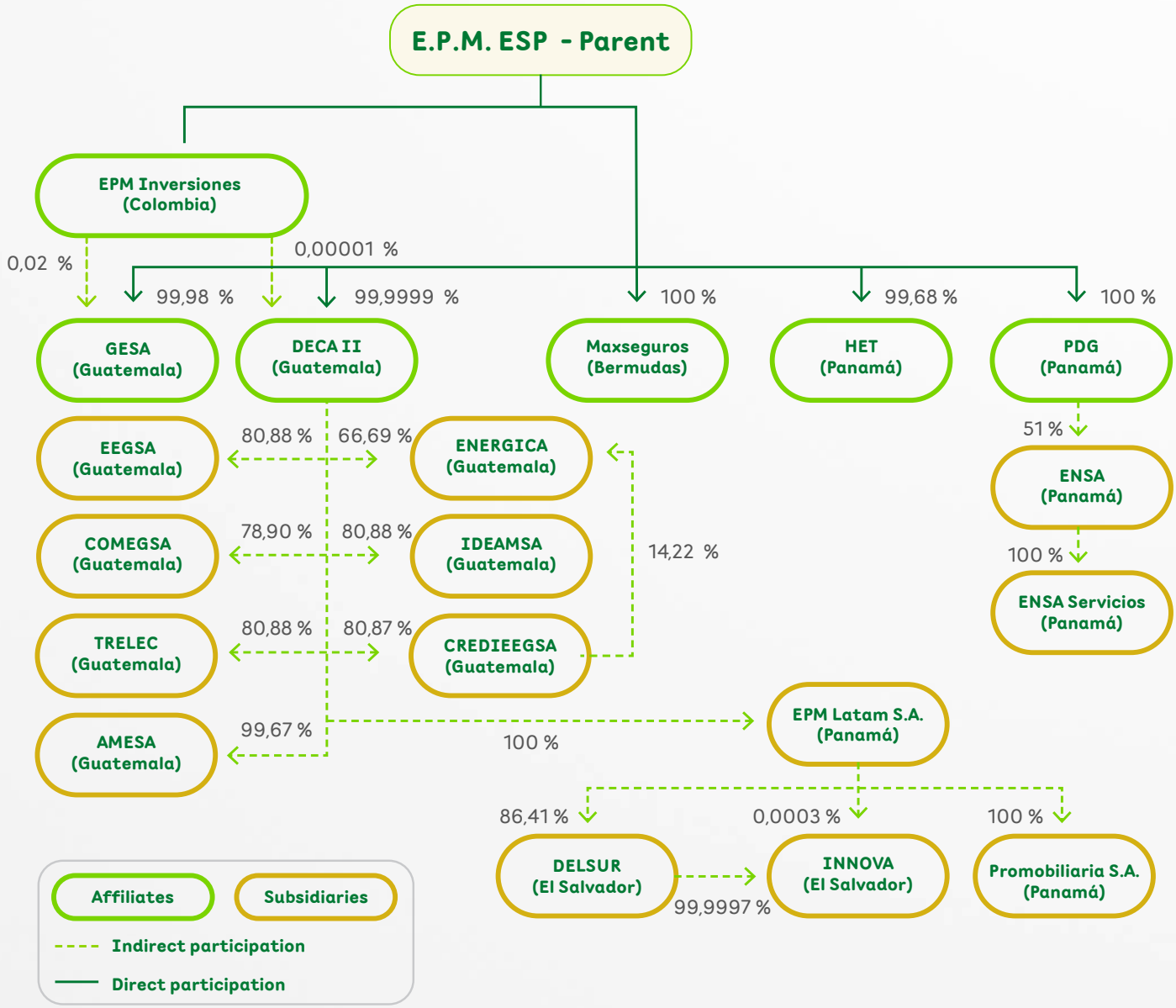
Grupo EPM shareholding structure

General structure of the EPM business group

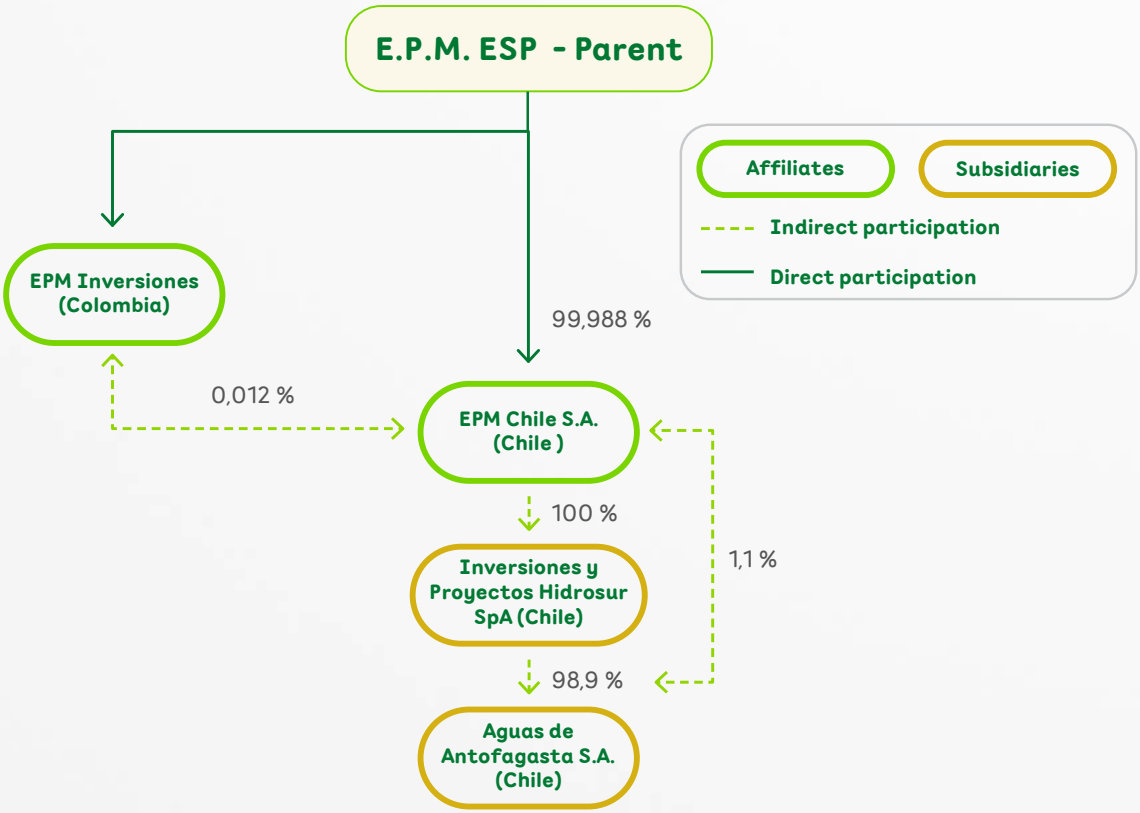
Subsidiaries and Affiliates in Colombia



Subsidiaries and Affiliates in Central America and the Caribbean



Subsidiaries and Affiliates in Chile



Sustainability Report 2023

Sustainable management

‹ Back to content

‹ Back to content

Sustainability Report 2023

General information

Grupo·epm

‹ Back to content

Sustainability Report 2023

About this Report

Grupo·epm

Table of contents

General information

p.

About this Report 383

- Report profile 385
- Restatement and correction of data with respect to previous reports 389
- Communication on Progress (CoP) - Global Compact 393
- GRI table of contents 395
- External verification 418

‹ Back to content

Sustainability Report 2023

Report profile

Grupo·epm

Report profile

EPM and Grupo EPM publish their sustainability management annually. This report covers management between January 1 and December 31, 2023 and was published on the website in May 2024. **Content GRI 2-3.**

This report was prepared in accordance with the GRI Standards. **Content GRI 1.**

This is EPM's eighteenth Sustainability Report, prepared according to the GRI.
View | GRI Table of Contents

This report contains financial and non-financial information of EPM and Grupo EPM. **Content GRI 2-2.**

The Sustainable Management chapter includes information on the following Grupo EPM companies: **Content GRI 2-1.**

Co	Company	Business
Colombia	EPM	Water
		Sanitation
		Electric power generation
		Transmission and distribution of electric power
		Natural gas
	Aguas Nacionales EPM	Water and Sanitation
	Aguas del Oriente	
	Aguas Regionales	
	Aguas de Malambo	
	Emvarias	Solid waste management

Co	Company	Business
Colombia	ESSA	Generation, transmission and distribution of electric power
	CHEC	
	EDEQ	Transmission and distribution of electric power
	CENS	
	Afinia	
El Salvador	Delsur	Transmission and distribution of electric power
Guatemala	EPM Guatemala	
Chile	Adasa	Water
México	Ticsa	Sanitation
Panamá	HET	Power generation
	ENSA	Transmission and distribution of electric power

This report is aligned with the Sustainable Development Goals, the principles of the Global Compact, the framework of the International Integrated Reporting Council - IIRC and the Integrated Planning and Management Model - MIPG.

The Sustainability Report includes the General Manager's Management Report, corporate governance management, sustainable management, financial management of EPM and Grupo EPM, and the Hidroituango power plant report.

This information is disclosed annually through face-to-face, mass and digital media, to stakeholders, society in general and specific audiences.

The contents of the Report were reviewed and approved by Company officers and externally verified by Ernst & Young. **Content GRI 2-5.**

For more information **View | External verification of the report**.

The preparation of the report was coordinated by the Sustainability Management Department, which is part of EPM's Vice-Presidency for Sustainability and Strategy.

Contact information

Empresas Públicas de Medellín E.S.P.

Email:
sostenibilidad.epm@epm.com.co

Phone:
+57 604 380 57 00

Address of EPM's headquarters and main office:
Carrera 58 # 42 – 125 – Medellín – Antioquia (Colombia)

Content GRI 2-3

GRI standard content and corporate indicators

Content 1	Fundation 2021
Content 2-1	Organizational details
Content 2-2	Entities included in sustainability reporting
Content 2-3	Reporting period, frequency and point of contact
Content 2-5	External verification

Sustainability Report

2023

Restatement and correction of data with respect to previous reports

Grupo·epm

Restatement and correction of data with respect to previous reports

The following are the adjustments made to data reported in previous years, as a result of refinements to the calculation methodologies, adjustments to the information systems, or corrections of information.

Content GRI 2-4

In Access and purchasability:

- The average consumption per installation in EPM of postpaid energy was updated in 2021 from 170 to 192 and in 2022 from 194 to 192.

In Employee wellbeing and adaptability:

- In training and development of Grupo EPM, the following was adjusted:
  - Learning events held in 2022 from 2,908 to 3,278
  - Scholarships awarded in 2021 from 977 to 31 and in 2022 from 865 to 65.
  - The value of the organizational learning plan in 2021 from 7,988 to 31,553 and in 2022 from 13,131 to 67,338.
- In trade union organizations, the following was adjusted:
  - The number of unions in Grupo EPM in 2021 and 2022 from 32 to 33.
  - The number of employees covered by collective bargaining agreements at EPM in 2022 from 8,168 to 8,162.
  - The percentage of union membership in the Essa subsidiary in 2021 from 78.3 % to 98.7 % and in 2022 from 90.7 % to 98.8 %.

In Water and biodiversity:

- In water use and effluents, the figures for 2021 and 2022 were adjusted due to inconsistencies in the report, which were corrected in the tables: water supply Grupo EPM (thousands of m^3), water use Grupo EPM (thousands of m^3), origin of discharges Grupo EPM (thousands of m^3), receiving source of discharges - Grupo EPM (thousands of m^3).

Year	Water supply Grupo EPM (Thousands m³)*		Superficial Grupo		Superficial EPM		Grupo aqueduct		EPM aqueduct		Other sources Grupo*		Other soucers EPM*	
	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update
2022	24,034,758	**23,486,867**	24,024,659	**23,476,925**	21,164,515	**21,164,515**	868	**883**	436	**445**	9,231	**9,059**	4	**5**
2021	21,312,852	**20,871,462**	21,302,406	**20,858,194**	18,490,813	**18,049,455**	906	**3,728**	474	**474**	9,539	**9,540**	4	**5**

Year	Water use Grupo EPM (thousands of m³)*		Grupo productive		EPM productive		Grupo Cooling		EPM Cooling		Grupo Domestic		EPM Domestic	
	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update
2022	24,034,758	**23,486,867**	23,939,021	**23,391,115**	21,069,443	**21,069,443**	9,5074	**95,074**	95,066	**95,066**	663	**678**	447	**456**
2021	21,312,852	**20,871,462**	21,176,043	**20,733,878**	18,354,685	**17,913,327**	13,6171	**136,171**	136,164	**136,164**	638	**1,414**	442	**442**

Year	Origin of discharges EPM Group (Thousands of m³)*		Grupo productive		EPM productive		Grupo Cooling		EPM Cooling		Grupo Domestic		EPM Domestic	
	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update
2022	302,378	**291,404**	213,697	**190,151**	57,976	**57,976**	85,193	**85,193**	85,193	**85,193**	3,488	**16,060**	296	**306**
2021	347,165	**346,805**	207,638	**190,111**	60,075	**60,075**	136,118	**136,118**	136,118	**136,118**	3,409	**20,575**	320	**320**

Year	Receiving source of dischargesEPM Group (Thousands of m³)*		Superficial Grupo EPM		Superficial EPM		Soil Grupo EPM		Soil EPM		Sewerage Grupo EPM		Sewerage EPM		Other sources Grupo EPM		Other sources EPM	
	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update	Report 2022	Update
2022	299,389	**291,404**	295,902	**284,849**	140,756	**140,756**	184	**268**	12	**12**	3,302	**3,298**	2,697	**2,706**	Not reported	**2,990**	Not reported	**0**
2021	344,276	**346,805**	339,222	**338,891**	192,172	**192,172**	181	**153**	19	**19**	4,873	**4,871**	4,323	**4,323**	Not reported	**2,889**	Not reported	**0**

In Quality and safety of products and services:

- In quality and continuity of service, the following was adjusted:
  - Continuity of water and sanitation service in 2022 in Aguas del Oriente from 100 % to 99.67 % and in Aguas Regionales from 95.31 % to 94.13 %.
  - Average system outage duration (Saidi) in 2022 in Afinia from 73.91 hours to 74 hours.
  - The average frequency of system interruptions (Saifi) in Afinia from 52.14 to 52.2 and in EPM Guatemala from 5.06 to 5.05.
  - In loss management, the regulated market commercial loss index (Iperc) was adjusted in:
    - Chec in 2021 from 12.99 % to 12.66 % and in 2022 from 12.12 % to 11.68 %.
    - Edeq in 2022 from 10.56 % to 10.22 %.
    - Afinia in 2021 from 34.31 % to 32.67 % and in 2022 from 33.28 % to 30.49 %.
    - Ensa in 2021 from 14.04 % to 13.97 %.
- In safety in the provision of service, the following was adjusted:
  - Accident fatalities in 2022 in Grupo EPM from 68 to 66.
  - Persons injured for other reasons in Grupo EPM in 2021 from 131 to 118 and in 2022 from 124 to 129.
  - Total number of people injured in 2021 from 272 to 259.
  - In incidents and claims for service provision at Grupo EPM, the following was adjusted:
    - Incidents or claims for damage or injury to persons received in 2022 from 70 to 56.
    - Incidents or claims for damage or injury to persons settled in favor of the claimant in 2022 from 19 to 13.
    - Incidents or claims for damage to property or fixtures received in 2022 from 5,333 to 4,772.
    - Incidents or claims for damage to property or fixtures settled in favor of the claimant in 2021 from 995 to 1,150 and in 2022 from 1,554 to 1,436.2022 de 1,554 a 1,436.

‹ Back to content

Sustainability Report 2023

Communication on Progress (CoP) - Global Compact

Grupo·epm

Communication on Progress (CoP) - Global Compact

EPM manages stakeholder relations and engagement based on the guidelines offered by the Diagnosis and Practice Handbook for Relations with Stakeholders of UNEP, Accountability and Stakeholders Research Associates. Grupo EPM incorporates the ten principles of the United Nations Global Compact as part of its commitment to global sustainability and its stakeholders. This management is immersed in the strategic and operational challenges of the Organization, as follows:

- *Human rights management is mainly associated with the stakeholders Suppliers and contractors, Community, Customers and users and People of Grupo EPM. It is reported in detail in Human rights.*
- *Labor rights management is associated with the stakeholders People of Grupo EMP and is reported in detail in Labor Welfare and Adaptability.*
- *Environmental management is reported in detail in Water and biodiversity, Renewable energy, Climate change and Sustainable production and consumption.*
- *Anti-corruption matters are reported in Transp.*

The alignment of EPM's sustainable management with the principles of the Global Compact is contained in the Global Compact.

This report responds to the requirements of the "Communication in Progress" to report on EPM's practices derived from its conviction and commitment to the ten principles on human rights, labor standards, environment and anti-corruption.

We renew our willingness to remain a party to the United Nations Global Compact, as we have done annually since 2006, the year of our initial entry, and to continue participating in the activities of the Global Compact Network in Colombia and in the Antioquia Node at the regional level.

This report meets the requirements of the Communication in Progress to honor EPM's commitment to the Global Compact to report on the content and application of the principles in its strategy and operations, convinced of their value as a starting point towards common purposes.

‹ Back to content

Sustainability Report 2023

GRI table of contents

Grupo·epm

GRI table of contents

Declaration of use:

- EPM and Grupo EPM have prepared the report in accordance with the GRI Standards for the period from January 1 to December 31, 2023.

GRI used

- GRI 1: Fundation 2021
- GRI 2: General Contents 2021
- GRI 3: Material Topics 2021
- GRI Standard Electric Power Sector (EU)

GRI Standard / Other source	Content		Location / Response	Reason for omission	Comments	Verification
GRI 2: General Contents 2021	1 The organization and its reporting practices	Contents 2-1 Organizational details	*Who we are*			✓
			Report profile			✓
		Content 2-2 Entities included in sustainability reporting				✓
		Contents 2-3 Reporting period, frequency and contact point				✓
		Contents 2-4 Restatements of information	*Restatement and correction of data with respect to previous reports*			✓
		Contents 2-5 External assurance	*External verification of the report* External verification is a voluntary decision of the Sustainability and Strategy Vice-Presidency, in its commitment to contributing to the quality and reliability of the information published.			✓

GRI Standard / Other source	Content		Location / Response	Reason for omission	Comments	Verification
GRI 2: General Contents 2021	2. Activities and workers	Content 2-6 Activities, value chain and other business relationships	*Our goods and services supply cycle* In 2023 there were no significant changes in the public utilities sector in which Grupo EPM operates; neither were there substantial changes in its value chain, nor in its commercial relationships.	Unavailable or incomplete information	Item b, iii. Information on the downstream activities of the organization and its activities is not included. Alternatives will be analyzed to report this information in the future.	✓
		Contents 2-7 Employees	*Staffing:* the headcount is reported in this section, including: employees, apprentices and trainees. The published figures were extracted from staff databases.	Not applicable	Item b. The breakdowns of permanent and temporary employees, non-guaranteed hourly employees and full-time and part-time employees do not apply.	✓
		Contents 2-8 Workers who are not employees	*Who we are and EPM Management Report:* The number of external jobs generated from the contracting process is reported in these sections, in regards to contractor workers, calculated using the Full Time Equivalent - FTE methodology.			✓
	3. Governance	Content 2-9 Governance structure and composition	*Ownership structure EPM* *Board of Directors EPM* *Composition of the Board of Directors* *Profiles of the members and composition of the Board* *Profiles of the members and composition of the Board* *Management of Board Committees* *Senior Management* *Ownership structure of Grupo EPM*			✓

GRI Standard / Other source	Content		Location / Response	Reason for omission	Comments	Verification
GRI 2: General Contents 2021	3. Governance	Content 2-10 Nomination and selection of the highest governance body	*Composition of the Board of Directors* *Management of Board Committees* *Boards of Directors Grupo EPM*			✓
		Contents 2-11 Chairman of the highest governance body	*Ownership structure EPM* *Composition of the Board of Directors*			✓
		Content 2-12 Role of the highest governance body in overseeing the management of impacts	*Composition of the Board of Directors* *Management of the Board of Directors* *Typical agenda and schedule of the Board of Directors* *Management of Board Committees* *Senior Management* *Corporate Audit Management* *Comprehensive Risk Management*			✓
		Content 2-13 Delegation of responsibility for managing impacts	*Management of the Board of Directors* *Typical agenda and schedule of the Board of Directors* *Management of Board Committees* *Senior Management EPM* *Typical agenda and schedule of the Board of Directors of Grupo EPM* The directors of the organization have established, within their duties and responsibilities for the processes associated with their position, the management and reporting of the impacts generated to the corresponding committees.			✓
		Content 2-14 Role of the highest governance body in sustainability reporting	*Presentation of the Corporate Governance Report Grupo EPM* *Typical agenda and schedule of the Board of Directors* *Management of Board Committees*			✓
		Contents 2-15 Conflicts of interest	*Conflicts of interest*			✓
		Contents 2-16 Communication of critical concerns	*Critical concerns* *Management of the Board of Directors*			✓

GRI Standard / Other source	Content		Location / Response	Reason for omission	Comments	Verification
GRI 2: General Contents 2021	3. Governance	Content 2-17 Collective knowledge of the highest governance body	*Orientation of the Board of Directors* *Training of the Board of Directors* *Orientation of the general manager*			✓
		Content 2-18 Evaluation of the performance of the highest governance body	*Evaluation of the Board of Directors* *Evaluation of the general manager* *Evaluation of Senior Management* *Evaluation of the Boards of Directors of Grupo EPM* *Management performance assessment of managers/ presidents of Grupo EPM* Strengthening plans are defined based on the results of the evaluations of the governing bodies, which are the responsibility of the Board of Directors in terms of their implementation and follow-up within the Organization.			✓
		Contents 2-19 Remuneration policies	*Remuneration of the Board of Directors* *Remuneration of senior management* *Remuneration of the Boards of Directors of the companies of Grupo EPM* The remuneration of the Board of Directors of EPM and of the Boards of the Group is not related to the goals or objectives of the organization in the fields of economy, environment and people. For the senior management of EPM, Guideline 100 of 2022 establishes the criteria related to variable and fixed compensation; it should be noted that in the case of variable compensation, it remunerates the effective contribution to the achievement of organizational objectives and the added value generated. Some managers of the companies of the Group receive a variable compensation that is defined in the same terms as above and the CMI indicators that are taken into account to determine this compensation.			✓

GRI Standard / Other source	Content		Location / Response	Reason for omission	Comments	Verification
GRI 2: General Contents 2021	3. Governance	Contents 2-20 Process for determining remuneration	*Management of Board Committees* *Remuneration of the Board of Directors* *Remuneration of Senior Management* *Remuneration of the Boards of Directors of the companies of Grupo EPM* In EPM, it does not apply to the shareholders' assembly. To determine the remuneration of the manager and vice presidents, the Board of Directors reviews the remuneration upon recommendation of the management committee.			✓
		Contents 2-21 Annual total compensation ratio	*Remuneration of senior management* The calculation of the compensation ratio is made based on information from the staff databases. It is calculated based on the semi-annual total compensation of the Organization's highest paid individual versus the median of the semi-annual total compensation of all employees excluding the highest paid individual.			✓
	4. Strategy, policies and practices	Contents 2-22 Statement on sustainable development strategy	*Our sustainability model* *EPM Management Report in the sections:* Letter from the general manager of EPM and Strategic direction.			✓
		Contents 2-23 Policy commitments	Commitments and policies are available for consultation by all stakeholders, including employees and business partners, at *https://www.epm.com.co/institucional/sobre-epm/quienes-somos/politicas/*			✓
		Content 2-24 Embedding policy commitments				✓

GRI Standard / Other source	Content		Location / Response	Reason for omission	Comments	Verification
GRI 2: General Contents 2021	4. Strategy, policies and practices	Contents 2-23 Policy commitments	These commitments are disclosed in different spaces of interaction and relationship with stakeholders and apply to all the organization's activities and extent to its commercial relations, in the performance of its activities and with the mechanisms available to the organization, such as the incorporation of clauses in contracts and agreements with counterparties. The allocation of responsibilities for the implementation of the commitments is based on the organizational design and structure according to the macro processes of the value chain. These commitments are integrated into organizational strategies and in the policies and procedures in accordance with the current regulatory framework. The policies and their guidelines are part of the internal and external training processes carried out by the organization.			✓
		Content 2-24 Embedding policy commitments				✓
		Contents 2-25 Processes for remediate negative impacts	*Transparency practices* *Relations with stakeholders and other players* *Human rights in the supply chain:* Different mechanisms are in place for stakeholders to inform the company of situations associated with actual or potential impacts arising from its own operations and from those carried out through agreements with third parties. In this way the company addresses, investigates and responds to complainants, the results of this process, including corrections and remediation, where appropriate.			✓

GRI Standard / Other source	Content		Location / Response	Reason for omission	Comments	Verification
GRI 2: General Contents 2021	4. Strategy, policies and practices	Contents 2-25 Processes for remediate negative impacts	The case, complaint and claim resolution indicators are reported in the areas of *Human rights* and *Transparency*, which are used to follow up on this issue, which follow the resolution and follow-up protocols established by the company.			✓
		Contents 2-26 Mechanisms for seeking advice and raising concerns	*Transparency practices* *Customer service*			✓
		Contents 2-27 Compliance with laws and regulations	*Safety in the provision of the service:* see table of incidents and complaints in the provision of the service. Any non-compliance with the laws or regulations that results in a penalty and/or fine is published in the relevant chapter and is significant for the organization.	Unavailable or incomplete information	Item c. Describe significant instances of non-compliance. Item d. Describe how significant instances of non-compliance have been determined. Alternatives will be analyzed to report this information in the future.	✓
		Contents 2-28 Membership associations	*Commitments and synergies in sustainability*			✓
	5. Stakeholder engagement	Content 2-29 Approach to stakeholder engagement	*Stakeholder engagement*			✓
		Contents 2-30 Collective bargaining agreements	*Trade union organizations* For employees who are not covered by collective bargaining agreements, the organization determines their working conditions and terms of employment based on the collective bargaining agreements covering all other employees.			✓

GRI Standard / Other source	Content		Location / Response	Reason for omission	Comments	Verification
GRI 3: Material Topics 2021	Material topics	Contents 3-1 Process to determine material topics	*Identification of stakeholders* *Relevant sustainability issues - Materiality*			✓
		Contents 3-2 List of material topics				✓
GRI Standard - Electric Power Sector	EU1 Installed capacity broken down by primary energy source and by regulatory regime.		*Who we are*	Unavailable or incomplete information	Non-renewable energy sources are not specified, as the information is unavailable. Alternatives will be analyzed to report this information in the future.	✗
	EU2 Net energy production by primary energy source and by regulatory regime.					✗
	EU3 Number of residential, industrial, institutional and commercial customers.					✗
	EU4 Length of transmission and distribution lines (underground and overhead).			Unavailable or incomplete information	No information is available on the assumptions used to estimate the length of circuits. Alternatives will be analyzed to report this information in the future.	✗
			Universalization of the service			✗
	EU5 Allocation of allowable CO2 emissions, broken down according to the carbon credit trading framework.		EPM does not operate in markets with carbon credits trading.	Not applicable		✗
Own EPM indicator	EPM-06 Number and value of social contracting agreements.		*Our Group | Who we are 2023 | Our goods and services supply cycle | Social contracting* *Our Group | Who we are 2023 | Our goods and services supply cycle | Local, regional, national and foreign contracting* *Management Report*			✗
	EPM-07 Number, value and type of agreements in Grupo EPM.					✗
	EPM-08 External jobs generated by contracting in Grupo EPM.					✗

Material issue	Content		Location in the report / Response	Reason for omission	Comments	External verification
Access and purchasability	GRI 3: Material Topics 2021	3-3 Management of material topics	*Access and affordability*			✓
	GRI 203. Indirect economic impacts 2016	203-2 Significant indirect economic impacts	*Universalization of the service*	Unavailable or incomplete information	The number of people benefited is calculated based on the number of people per house provided by the DANE or the business's own calculations. No examples of negative indirect economic impacts are included in this report due to the absence of a unified procedure or methodology for their identification and reporting. Currently, the organization's ability to collect and analyze data on these impacts prevents it from meeting this requirement. We are committed to the transparency and continuous improvement of our reporting practices. Therefore, alternatives will be analyzed to comprehensively identify, evaluate and report indirect economic impacts, including negative impacts.	✓
			Account financing and delinquency			✗
			Housing Enablement			✓
			Purchasability solutions			✗
			Community meters			✓
			Unserved population			✓

Material issue	Content		Location in the report / Response	Reason for omission	Comments	External verification
Access and purchasability	GRI Standard - Electric Power Sector	EU26 Percentage of unserved population in areas with distribution license.	*Universalization of the service*			✗
			Unserved population The percentages of unserved population for EPM, calculated based on the universalization of the service percentages, are as follows: Energy: 2.8% Aqueduct = 1.87% Sewage = 3.73% Gas: 13.4%			✗
	Own EPM indicator	EPM-12 Solutions for existing unserved homes.				✓
		EPM-17 Universalization of the service.				✓
			Universalization of the service			✓
Water and biodiversity	GRI 3: Material Topics 2021	3-3 Management of material topics	*Water and biodiversity*			✓
	GRI 303: Water and effluents 2018	303-1 Interaction with water as a shared resource.	*Water conservation and biodiversity* *Use of water and effluents* *Management of impacts related to water and biodiversity*			✓
		303-2 Management of water discharge-related impacts	*Management of impacts related to water and biodiversity* *Use of water and effluents*	Not applicable	There are no standard guidelines set for water quality and discharges, since all these matters are regulated by the environmental regulations in force in each of the countries where Grupo EPM operates.	✗
		303-3 Water withdrawal	*Use of water and effluents* The main discharge sources and the water vulnerability index are published.	Not applicable	Item a.iv. No "produced water" extraction is reported because no water is removed from this source. Item c. Water catchments are not separated according to the concentration of total dissolved solids, since dissolved solids are not measured for most of the sources where water is removed.	✓
		303-4 Water discharge.				

Material issue	Content		Location in the report / Response	Reason for omission	Comments	External verification
Water and biodiversity	GRI 303: Water and effluents 2018	303-3 Water extraction.	*Use of water and effluents* The main discharge sources and the water vulnerability index are published.	Not applicable	Item a.ii. There is no discharge to groundwater, which is why there discharges to this type of source are not reported. Item a.iii. The classification of the volume of water discharged to seawater sources is not published since no discharges are made to this source.	✓
		303-4 Water discharge.		Unavailable or incomplete information	Items b and c. The volume of water discharged by type of source and the water use index are not published in a disaggregated manner, as the mechanism for reporting this data has not yet been established since the information was collected. Alternatives will be analyzed to report this information in the future.	
		303-5 Water consumption.				✗
	GRI 304. Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	*Water conservation and biodiversity*			✗
		304-2 Significant impacts of activities, products and services on biodiversity.	*Management of impacts related to water and biodiversity*			✓

Material issue	Content		Location in the report / Response	Reason for omission	Comments	External verification
Water and biodiversity	GRI 304. Biodiversity 2016	304-3 Habitats protected or restored	*Water conservation and biodiversity*			✓
		304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations				✗
		EU13 Comparison of biodiversity between compensated habitats and in affected areas.	*Management of impacts related to water and biodiversity*			✓
	GRI 306. Effluents and waste 2016	306-1 Discharge of water according to its quality and use.	*Use of water and effluents*			✗
	Own EPM indicator	EPM-01 Conservation areas.	*Water conservation and biodiversity*			✓
		EPM-10 Water protection.				✓
Employee wellbeing and adaptability	2. Activities and employees	2-7 Employees	*Staffing*			✓
	5. Stakeholder engagement	2-30 Collective bargaining agreements	*Trade union organizations*			✓
	GRI 3: Material Topics 2021	3-3 Management of material topics	*Workplace wellbeing and adaptability*			✓
	GRI 401. Employment 2016	401-1 New employee hires and employee turnover.	*Staffing*			✗
		401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	*Workplace wellbeing and benefits*			✗

Material issue	Content		Location in the report / Response	Reason for omission	Comments	External verification
Employee wellbeing and adaptability	GRI 401. Employment 2016	401-3 Parental leave.	*Workplace wellbeing and benefits*			⊗
	GRI 403. Occupational health and safety 2018	403-1 Occupational health and safety management system.	*Occupational health and safety*			⊗
		403-2 Hazard identification, risk assessment and incident investigation.				⊗
		403-3 Occupational health services.				⊗
		403-4 Worker participation, consultation and communication on occupational health and safety.				✓
		403-5 Employee training on occupational health and safety				⊗
	GRI 404. Training and education 2016	404-1 Average hours of training per year per employee.	*Training and development*			⊗
		404-2 Programs for upgrading employee skills and transition assistance programs	*Workplace wellbeing and benefits*			⊗
		404-3 Percentage of employees receiving regular performance and career development reviews.	*Job performance*			⊗

Material issue	Content		Location in the report / Response	Reason for omission	Comments	External verification
Employee wellbeing and adaptability	GRI 405. Diversity and equal opportunity 2016	405-1 Diversity of governance bodies and employees.	*Staffing* *Corporate Governance Report:* in the section Profiles of members and composition of the Board.		Information is reported by age group and gender. EPM does not have and does not track other diversity indicators, such as minority or vulnerable groups, to supplement the data published for this indicator.	✓
	GRI Standard - Electric Power Sector	EU14 Programs and processes to ensure the availability of skilled labor.	*Personnel selection*			✗
		EU15 Percentage of employees eligible to retire in the next 5 and 10 years, broken down by category and region.	*Retirees and pensioners*			✗
		EU16 Policies and requirements concerning the health and safety of workers, contractors and subcontractors.	*Occupational health and safety*			✗
		EU17 Workdays of employees of contractors and subcontractors involved in construction, operation and maintenance activities.				✗
		EU18 Percentage of contractors and subcontractors that have undergone relevant health and safety training.				✗
	Own EPM indicator	EPM-31 Quality of Life Measurement - Psychosocial Risk	*Quality of life*			✓

Material issue	Content		Location in the report / Response	Reason for omission	Comments	External verification
Quality and safety of products and services	GRI 3: Material Topics 2021	3-3 Management of material topics	*Quality and safety of products and services*			✓
	GRI 416. Customer health and safety 2016	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	*Safety in the provision of the service*			✗
	GRI 417. Marketing and labeling 2016	417-3 Cases of noncompliance related to marketing communications				✗
	GRI 418. Customer privacy 2016	418-1 Substantiated complaints concerning breaches of customer	*Customer service*			✗
	GRI Standard - Electric Power Sector	EU25 Number of injuries and fatalities involving company assets, including legal rulings, settlements, and pending legal cases due to illness.	*Safety in the provision of the service*			✗
		EU28 Average frequency of outages.	*Quality and continuity of service*			✓
		EU29 Average duration of outages.				✓
		EU30 Average availability of generation plants, by energy source and regulatory regime.	*Who we are*			✗
	Own EPM indicator	EPM-03 Loss rate.	*Loss management*			✓

Material issue	Content		Location in the report / Response	Reason for omission	Comments	External verification
Quality and safety of products and services	Own EPM indicator	EPM-04 Service channels.	*Customer service*			✗
		EPM-07 Customer experience Indicator - NPS (Net Promoter Score)				✗
		EPM-18 Aqueduct continuity index ICTAC	*Quality and continuity of service*			✓
Climate change	GRI 3: Material Topics 2021	3-3 Management of material topics	*Climate change*			✓
	GRI 201. Economic performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	*Climate strategy management*			✗
			Adaptation to natural variability and climate change			
	GRI 305. Emissions 2016	305-1 Direct (Scope 1) GHG emissions	*Climate strategy management*			✓
		305-2 Energy indirect (Scope 2) GHG emissions		Not applicable	Item b: the calculation of the gross value -based on the market- of indirect GHG emissions is not applicable because EPM does not purchase energy under agreements with renewable energy certificates and the emission factor of the residual electricity mix is not calculated in Colombia.	✓

Material issue	Content		Location in the report / Response	Reason for omission	Comments	External verification
Climate change	GRI 305. Emissions 2016	305-3 Other indirect (Scope 3) GHG emissions	*Climate change mitigation.* *Climate strategy management* The "other categories" included in the scope 3 emissions table for EPM correspond to the values of the year 2023 for: Goods and services (16,118 tCO_2e last updated in 2012), Capital goods (525 tCO_2e last updated in 2012), Waste (24,544 tCO2e last updated in 2022), Land transport and air transport (2,525 tCO_2e last updated in 2022), Employee commuting (3,938 tCO_2e last updated in 2019).	Not applicable	Item c: There are no biogenic emissions in this year for Scope 3, because there are no biogenic emissions in the main emission sources of the extended chain of EPM.	✓
		305-4 Intensity of GHG emissions.				✗
		305-5 Reduction of GHG emissions.				✗
		305-6 Emissions of ozone-depleting substances (ODS).				✗
		305-7 Nitrogen oxides (NOx), sulfur oxides (SOx) and other significant air emissions.	*Climate change mitigation*			✓
Human rights	GRI 3: Material Topics 2021	3-3 Management of material topics.	*Human rights*			✓
	GRI 406. Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	*Institutional management of Human rights* *Human rights in the supply chain*		The reported scope includes EPM only.	✓
	GRI 407. Freedom of association and collective bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	*Institutional management of Human rights* *Human rights in the supply chain*			✗
	GRI 408. Child labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	*Human rights in the supply chain*			✗

Material issue	Content		Location in the report / Response	Reason for omission	Comments	External verification
Human rights	GRI 409. Forced or compulsory labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	*Human rights in the supply chain*			⊗
	GRI 410. Security practices 2016	410-1 Security personnel trained in human rights policies or procedures.	*Security and Human rights*			⊗
	GRI 411. Rights of indigenous peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	*Institutional management of Human rights* *Human rights in the supply chain* *Security and Human rights*			⊗
	GRI 414. Social evaluation of suppliers 2016	414-2 Negative social impacts in the supply chain and actions taken.	*Security and Human rights* *Human rights in the supply chain* Item c. The significant negative impacts -potential and actual- identified in the supply chain are as follows: - Use of child labor. - Impact on users' rights due to inappropriate or arbitrary conduct by contractors. - Violation of the right to work in decent and fair conditions (non-discrimination, fair remuneration, equal opportunities for promotion, safe and healthy work environment, rest and training, timely and proper payment of social security contributions; timely payment of overtime, holidays and vacations, among others) in the companies of the supply chain. - Dissociation or change of working conditions that impact the quality of life of women during pregnancy, maternity leave or breastfeeding period protected by law in contractor companies.	Not applicable	Item d. Percentage of suppliers identified as having significant negative social impacts -potential and actual- with which improvements have been agreed upon as a result of an assessment. The company defines the work plan to be carried out with each of these suppliers.	⊗
				Not applicable	Item e. Percentage of suppliers identified as having significant negative social impacts -potential and actual- with which the relationship has been terminated as a result of the assessment, stating the reason. To date, no cases have been identified that, due to their criticality, have given rise to this type of measure.	⊗

Material issue	Content		Location in the report / Response	Reason for omission	Comments	External verification
Human rights	Own EPM indicator	EPM-11 Unarmed security personnel	*Security and Human rights*			✗
		EPM-30 Management of Human rights	*Institutional management of Human rights* *Human rights in the supply chain* *Security and Human rights*			✗
Renewable energies	GRI 3: Material Topics 2021	3-3 Management of material topics	*Renewable energies*			✓
	Own EPM indicator	EPM-14 Resources allocated to renewable energies.	*Who we are:* Power generation mix			✗
			Wind		Total resources allocated to renewable energies in Grupo EPM COP 4,485 million.	✓
			Geothermal			
			Solar photovoltaic			
			Biogás			
			Small hydroelectric power plants			
Corporate Governance	GRI 3: Material Topics 2021	3-3 Management of material topics	*Corporate Governance*			✓
	Own EPM indicator	EPM-34 Efforts to comply with the Framework Relationship Agreement	*Efforts to comply with the Framework Relationship Agreement*			✗
Financial strength	GRI 3: Material Topics 2021	3-3 Management of material topics	*Financial strength*			✓
	Indicador propio EPM	EPM-13 Rates by type of service.	*Regulatory management*			✓
		EPM-21 Resources generated by liquidity strategies	*Financial strength*			✗
		EPM–22 EBITDA EPM	*Financial results*			✗
		EPM–23 EBITDA Grupo EPM				✗
		EPM–24 EBITDA Margin EPM				✗

Material issue	Content		Location in the report / Response	Reason for omission	Comments	External verification
Financial strength	Own EPM indicator	EPM–25 EBITDA Margin Grupo EPM	*Financial results*			✗
		EPM–26 Net Margin EPM				✗
		EPM–27 Net Margin Grupo EPM				✗
		EPM-32 Covenant Grupo EPM (Debt / EBITDA)				✗
Technology and innovation	GRI 3: Material Topics 2021	3-3 Management of material topics	*Technology and innovation*			✓
	Own EPM indicator	EPM-19 Resources allocated to technology and innovation	*Energy transition*			✓
			Digital transformation			
			Circular economy			
			Innovation management			
			Profitability of operations			
Transparency	GRI 3: Material Topics 2021	3-3 Management of material topics	*Transparency*			✓
	GRI 205. Anti-corruption 2016	205-2 Communication and training about anti-corruption policies and procedures.	*Transparency practices*			✗
	Own EPM indicator	EPM-33 measurement of the ethical climate				✓
		EPM-02 Contractor loyalty	*Perception monitoring*			✓
		EPM-06 Transparency and access to information index				✗
		EPM-07 Customer experience Indicator - NPS (Net Promoter Score)				✗

Material issue	Content		Location in the report / Response	Reason for omission	Comments	External verification
Transparency	Own EPM indicator	EPM-09 Overall contractor satisfaction	*Perception monitoring*			✓
		EPM-15 Compliance with stakeholder engagement plans EPM	*Relationship with stakeholders and other players*			⊗

Issue	Content		Location in the report / Response	Reason for omission	Comments	External verification
Sustainable production and consumption	GRI 3: Material Topics 2021	3-3 Management of material topics	*Sustainable production and consumption*			⊗
	GRI 302. Energy 2016	302-1 Energy consumption within the organization.	*Power consumption* The values provided by UPME are used for the calorific values of fuels. *Who we are:* Power generation mix			⊗
		302-2 Energy consumption outside the organization.				⊗
		302-3 Energy intensity.		Unavailable or incomplete information	Information is only reported for the Water and Sanitation business. Alternatives will be analyzed to report this information in the future.	⊗
		302-4 Reduction of energy consumption.				⊗
		302-5 Reduction of energy requirements of products and services.				⊗
	GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	*Waste management*			⊗

Issue	Content		Location in the report / Response	Reason for omission	Comments	External verification
Sustainable production and consumption	GRI 306: Waste 2020	306-2 Management of significant waste-related impacts.	*Waste management*			⊗
		306-3 Waste generated.				⊗
		306-4 Waste diverted from disposal				⊗
		306-5 Waste directed to disposal				⊗

Back to content

Sustainability Report 2023

External verification

Grupo·epm

External verification

In accordance with the independence standards required by the *Code of Ethics of the International Federation of Accountants (IFAC)*, the independent verification report issued by Ernst & Young confirms the independence they have with EPM; in addition, it is mentioned that all the firm's employees make annual updates to the ethics policy, in which they specifically state that have no conflicts of interest with EPM, its subsidiaries and its stakeholders.

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

The verification report lists the contents of the GRI Standards or indicators that were subject to verification for each of the material topics. **Content GRI 2-5.**

The independent assurance report concludes that nothing has come to light to suggest that the Sustainability Report contains material misstatements or has not been prepared per the *Global Reporting Initiative (GRI)* Standards.

This Sustainability Report has been externally verified by Ernst & Young

See the external verification certificate in:

See | Independent Review Report

Back to content

Sustainability Report

2023

Our Sustainability Model

Grupo·epm

Table of contents

General information

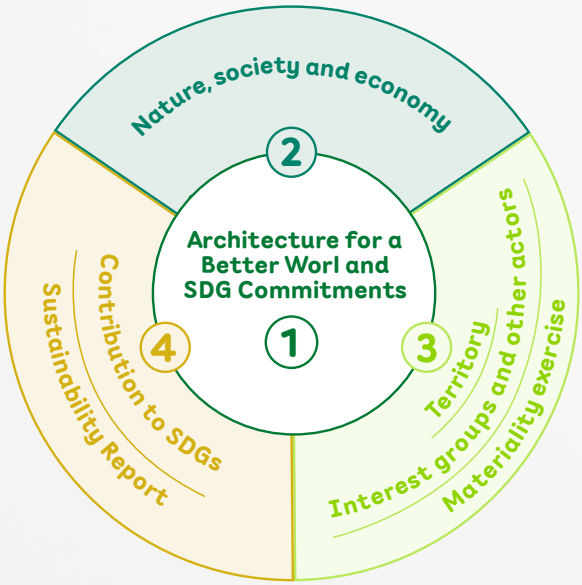
p.

Our Sustainability Model 420

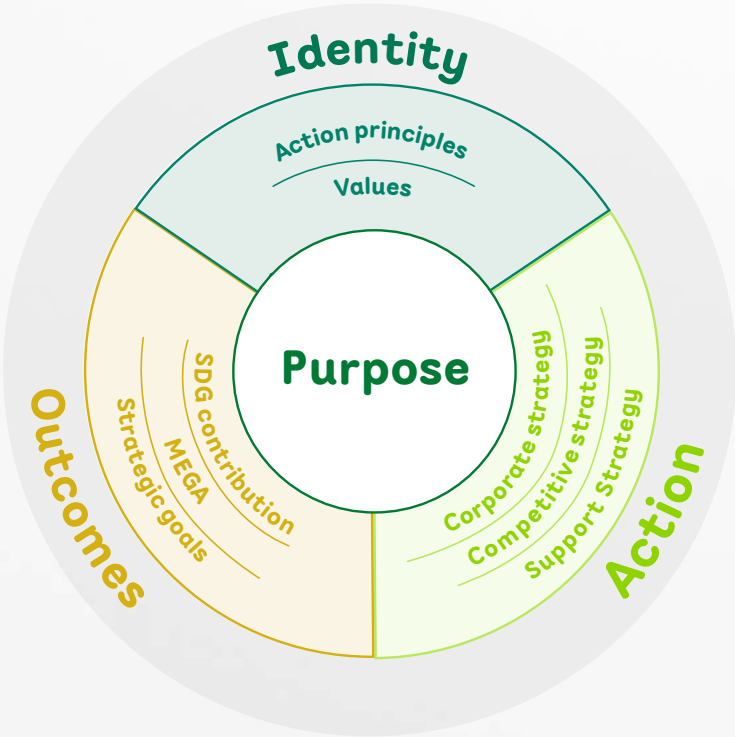
- Relevant topics in sustainability – Materiality 428
- Alignment with the global development agenda – SDG 439

Our Sustainability Model

Strategic direction *regarding sustainability aims to keep a purpose and direction unity in Grupo EPM as part of the Corporate Core's key mission "Strategic leadership". Its connection to the Sustainability Model elements is as follows:*



Sustainability Model

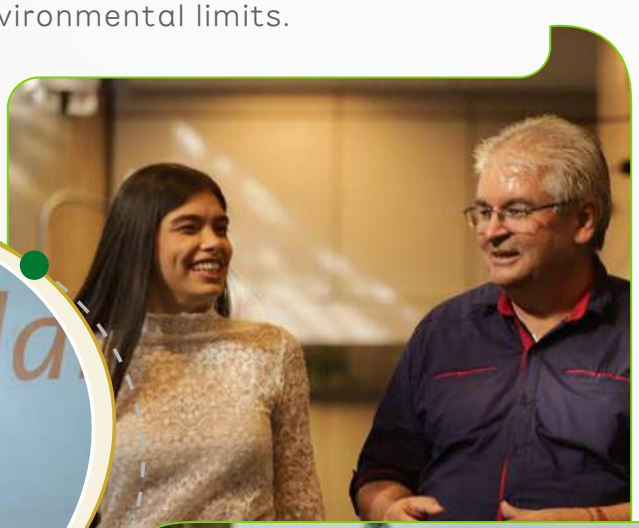


Strategic Direction

Corporate purpose – Architecture for a better world - SDG (Sustainable Development Goals): "Contributing to the harmony of life for a better world" is the main element in the strategic direction of Grupo EPM. This is coherent with the approaches that the architecture for a better world of the Global Compact have, and therefore, supports its commitment with a sustainability vision in which corporate leadership respects the universal principles and takes concrete and collaborative actions to reconcile the corporate goals with its contribution to Sustainable Development- GDS.

See | Alignment with the global development – GDS

Identity – nature, society, and economy: the identity component refers to the values and principles that are connected to an ecosystemic vision. Grupo EPM acknowledges that in the relationship between nature, society, and economy it is only possible to generate sustainable economic value by respecting social and environmental limits.



Action – territory, interest groups and materiality: The business group acknowledges the importance of establishing reliable relationships with its interest groups and of managing in an efficient, appropriate, and coherent way, the environmental, social, economic and governance aspects that are included in its vision, following the principles of thoroughness, relevance and responsiveness. These actions contribute to generating value and to the sustainable management of the territories where the group is present.

See | Relevant topics in sustainability – materiality

Outcomes – SDG (Sustainable Development Goals): According to this outcome component, Grupo EPM benefits itself, its environment, the people, the territories, and the planet in a long-term perspective. It includes the expected outcomes from the strategic goals, that in a comprehensive way consider environmental, economic, and governance aspects that will support the value generation of its interest groups, contributing to sustainable development, attaining the proposed financial goals, and reporting its sustainability performance openly.

Grupo·epm

The **Sustainability Model of Grupo EPM** guides value generation for its interest groups, its companies, and the territories where it is present. It is the foundation of the strategic direction and its decisions. It includes environmental, social, economic and governance aspects that impact the Organization's performance and allow sit to reconcile achieving the business goals while contributing to sustainable development.

Back to content

Sustainability Report

2023

Relevant topics in sustainability – Materiality

Grupo·epm

Relevant topics in sustainability – Materiality

When analyzing materiality, Grupo EPM *acknowledges that the set of material issues or ESG topics (Environmental, Social, Governance) are a priority in sustainability. This analysis included ESG topics (Environmental, Social, Governance), as well as climate and financial aspects, which allowed viewing the contribution to Sustainable Development and to the organization's performance. The material topics reconcile the organizational goals with the contribution to the sustainable human development, taking into account the vision of their interest groups, the vision of the corporate core and the companies of the Group, based on its strategic direction, operations, and relationship with its interest groups.*

See | Alignment with the global development agenda

In 2022 the material topics for Grupo EPM 2022-2025 were approved. These were determined with the direct participation of the interest groups and the staff of the Colombian and international operative companies of the Group. In this assessment, the impact of the COVID-19 pandemic was included as well as the analysis of the mega trends in sustainability.

See | Interest Group Participation

Grupo EPM supports materiality through the GRI standards and its relationship with interest group[1], based on the principles that have been proposed by regulation AA1000: thoroughness, relevance, and ability to respond.

Content GRI 3-1

[1] *The Model is methodologically supported by the Manual for practice of relations with the interest groups. . Accountability Institute, UNEP and Stakeholders Research Associate*

During 2023, other impacts that the material topics had on the strategic elements of the organization were included in the materiality assessment. These "impacts within the company" were considered in the importance rating, to have more detail considering the criteria of double materiality.

Material topics and their perspectives – Grupo EPM

Material topic	Perspective
Access and affordability	Service coverage
	Generate solutions of public utilities
Quality and safety in products and services	Service characteristics
	Service to customers and users
Corporate government	Balance between the decisions made by the Medellin District and the corporate management
	Ethical actions
Employee well-being and adaptability	Adaptability
	Organizational clarity
	Personal and professional growth
Human rights	Residential public utilities as a way of fulfilling rights
	Due diligence in human rights
Technology and innovation	Adaptation to new technologies
	Education and training in new technologies
Transparency	Relationship building to generate and maintain trust and reputation
	Information regarding the recruiting process of the Grupo EPM
	People Information regarding hiring and recruiting of contractors
Financial strength	Competitiveness and sustainability in businesses
	Regulatory management of rates
Water and biodiversity	Joint responsibility in caring for water and biodiversity
Climate change	Reduction in GHG emission
	Resilient infrastructure
Renewable energies	Offer clean and reliable solutions

Content GRI 3-2

Procedure to identify materiality in Grupo EPM

Identifying relevant topics that impact sustainability

To determine the sustainability issues that were declared as material topics by Grupo EPM, the interest groups were listened to through direct conversations and research about expectations, needs, satisfaction and reputation. Likewise, mechanisms such as Customer Service Requests were used, obtaining a long list of associated issues and actors, that were later perfected, refined, discussed, and analyzed by persons who know the companies of Grupo EPM and its corporate core; thus they identified, possible economic, environmental, and social impacts for Grupo EPM and for society. Consequently, the relevance principle of AA1000 APS was applied.

The issues that were identified were contrasted with elements of the strategic direction of Grupo EPM, with relevant sustainability global issues and the Grupo EPM strategy. Some of the sources were: thematic areas and SDGs of the 2030 Development Agenda, human development reports UNDP 2010-2017, the international regulation of social responsibility ISO26000, the Dow Jones sustainability index, the sustainability reports of important organizations in the field, events on topics such as climate and human rights and the GRI document that includes sustainability topics per field. Consequently, the thoroughness principle proposed by AA1000 APS was applied and adopted by the Relationship model with EPM's interest groups.

The interest groups' ideas were combined with the knowledge that the persons from Grupo EPM have about the territories and their experiences in the daily interaction with different processes of the companies.

Content GRI 3-1

Definition of current and future impacts in the financial situation of Grupo EPM

After analyzing the standards of national and international examples such as the Superintendence of Finance, The Corporate Sustainability Reporting Directive – CSRD and according to the guidelines of the technical group of the European Financial Reporting Advisory Group (EFRAG) and the international standards of the Task Force for Climate Related Financial Disclosure (TFCD) and the SASB Standards of the Value Reporting Foundation, EPM has decided that the material topics should be revealed in this report, because it is relevant information for the investors at the moment of purchasing, selling or keeping the values or for making decisions. The material topics significantly influence the risks and the elements of Grupo EPM's strategic direction, such as strategy, competitive imperative, strategic goals and the financial components related to the assets and the profit.

Reduced impact of the elements of strategic direction does not mean reduced importance, given that the material topics are the most important ones, and it shows the evident effects on such elements. In the following chart it is possible to see the impact of the material topics on the elements of Strategic Direction.

Content GRI 3-1

During 2023, other impacts of the material topics on the strategic elements of the organization were included in the materiality assessment. These "impacts within the company" were considered in the importance rating, to have more detail considering the criteria of double materiality.

Current and future impacts on the financial situation		Impact of the material topic on the strategic direction element: ¿Does the material topic directly impact the strategic direction element?										
Strategic direction element	Description	Access and affordability	Water and biodiversity	Quality and safety in products	Employee well-being and adaptability	Corporate govenrment	Human Rights	Renewable energies	Climate change	Financial strength	Technology and innovation	Transparency
Risks	Group risks	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Strategy	Evolve and grow, providing fast and innovate solutions for people and territories.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Competitive imperative	Offer efficient, universal, clean, and innovative solutions.	✓	✓	✓				✓	✓	✓	✓	
Strategic goals	Increase the value for the interest groups and the territories	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Grow in current businesses providing customers with unique and positive experiences.	✓	✓	✓	✓	✓		✓		✓	✓	
	Generate positive transformations with the interest groups.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Grow in new markets and with new solutions.	✓	✓	✓		✓		✓	✓	✓	✓	
	Promote effective business management.			✓		✓				✓	✓	
	Effectively manage businesses.			✓		✓				✓	✓	

Current and future impacts on the financial situation		Impact of the material topic on the strategic direction element: ¿Does the material topic directly impact the strategic direction element?										
Strategic direction element	Description	Access and affordability	Water and biodiversity	Quality and safety in products	Employee well-being and adaptability	Corporate government	Human Rights	Renewable energies	Climate change	Financial strength	Technology and innovation	Transparency
Strategic goals	Incorporate optimization in Grupo EPM.			✓		✓			✓	✓	✓	
	Optimize business management.			✓		✓			✓	✓	✓	
	Promote acquisitions and include new solutions.	✓		✓		✓		✓	✓	✓	✓	
	Include new solutions.	✓		✓		✓		✓	✓	✓	✓	
	Promote the development of distinctive capacities from the business architecture.	✓				✓	✓			✓	✓	✓
	Develop distinctive capacities from the business architecture.	✓				✓	✓			✓	✓	✓
	Strengthen the Group's governance system.				✓	✓				✓		✓
	Act coherently with the Group's governance system.				✓	✓				✓		✓
Finance	Impact on profit (variation in earnings, or in costs and expenses).	✓	✓	✓	✓	✓		✓	✓	✓	✓	
	Impact on net assets (variation in assets or liabilities).	✓	✓	✓		✓			✓	✓	✓	

Priority and importance of the material topics

This analysis was made with specialists from the Organization by using priority criteria for material topics. They took into consideration the financial perspective, as well the impact on sustainable development. They used an instrument that helps estimate the importance rating of the material topics based on the "topic's ability" to generate or destroy economic, financial, social, and environmental value for Grupo EPM and the interest groups, which means generating value inside and outside. This rating is the product of a cross-analysis of signals from the environment, the vision of the interest groups, the proximity and scale of the impacted actors and the thoughts of Grupo EPM expressed in strategic direction and in the Group's policies. This is how the relevance principle was applied.

To analyze the issues and topics, qualitative techniques were used that were translated into numerical expressions, thus facilitating comprehension, comparison and visualization of certain qualities or trends.

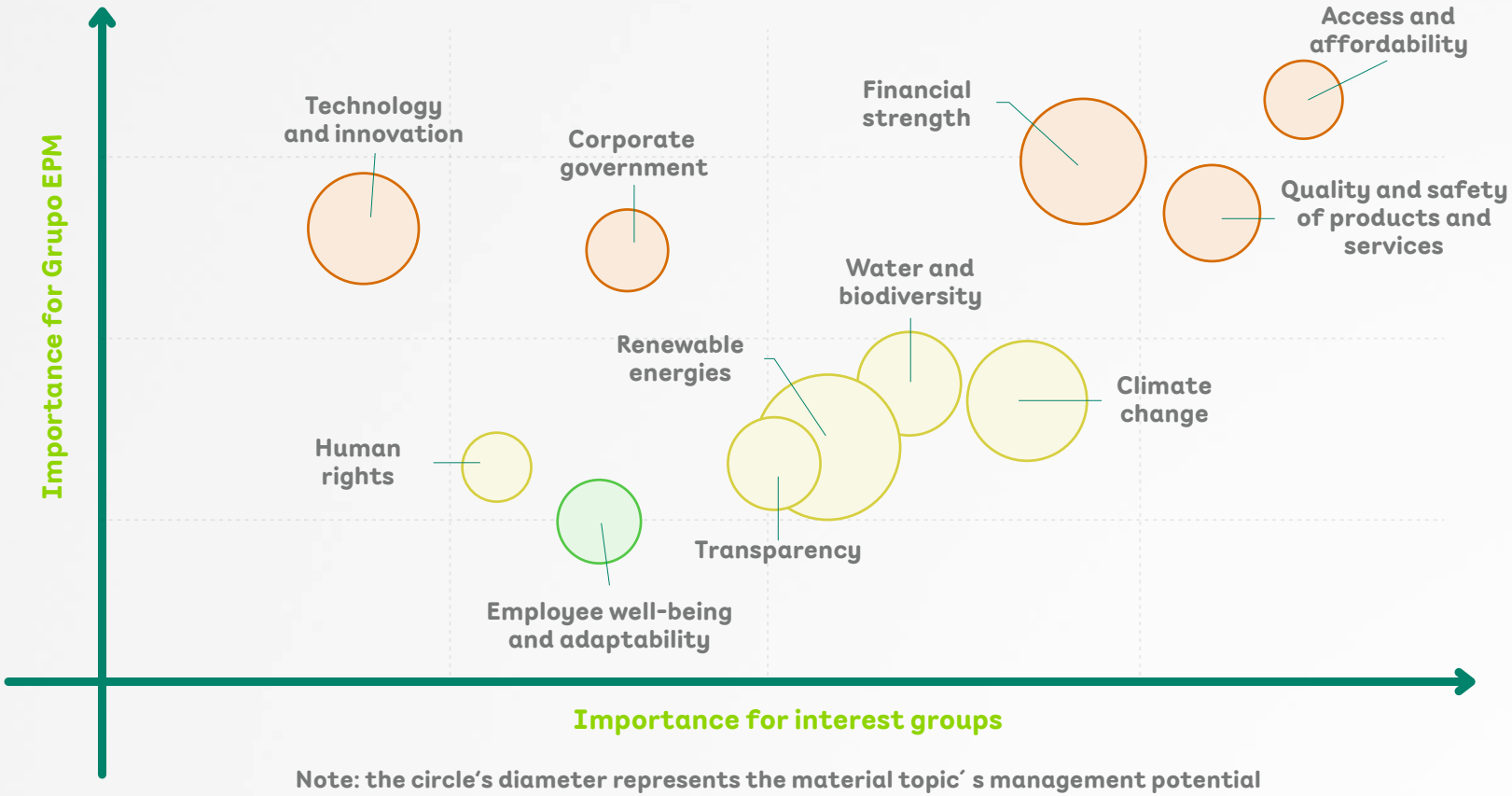
Content GRI 3-1

Priority with double materiality criteria

Topic importance for Grupo EPM- "Inside impact" Topic's impact or value for Grupo EPM.	**Topic importance for interest groups - "Outside impact"** Impact or value of the topic for Grupo EPM's interest groups.	**Topic management potential – "inside and outside look"** Possibilities or opportunities that the topic has for its development.
▶ The "topic's ability" to generate economic, social and environment al value ▶ The incidence or impact of the topics in the strategic direction, in the strategy and in the strategic goals. ▶ The sustainability model. ▶ The contribution to the prioritized SDGs ▶ Sustainability trends.	▶ Expectations and needs of the interest groups. ▶ Magnitude, scale, and urgency of the economic, social or environmental impact. ▶ Signals from the environment.	▶ Topic's state in the environment ▶ Topic's development in the Organization. ▶ Mobilization of interest groups around it

The management potential analysis of the topic applies the principle "ability to respond", of the Relationship model (the other two principles are "thoroughness" and "relevance").

Material topics Grupo EPM 2022 - 2025



Note: the circle's diameter represents the material topic' s management potential

Content GRI 3-1

Validation

The materiality results were included as part of the strategic direction; they are components of the integrated planning macroprocess, the environment analysis, the management systems, and the comprehensive risk management.

The material topics were validated by those responsible of the strategic direction of Grupo EPM, internal experts of the Organization and by the interest groups' leaders.

Review

On May 17 of 2022, the eleven material topics that have the Grupo EPM scope were reviewed and approved by the Core Committee. This means commitment with the management of their impact and accountability with the interest groups through the Sustainability Report.

Sustainability Report coverage

Content GRI 3-3

The internal coverage or materiality of the topics for the different parts of the Organization was analyzed in the Group's scope. In 2018 the emphasis of each material topic by territory was determined across the different companies within the Group. For managing these emphases, the most important challenges were identified, and their management for 2020 can be seen in the 2020 and 2021 reports in the section on challenges for each *material topic.* During 2022, the materiality was updated, and their approaches were identified.

The material topics are the central concept for managing sustainability and thus, improving the relationship with the interest groups.

The external coverage, which means the materiality topic outside of the Organization, is expressed by the association between interest groups and topics, that can be viewed in *participation of the interest groups* in the section of associated topics.

Supplementary information in the Sustainability Report

The sustainability report includes, as supplementary information, sustainability issues that are not classified as material topics. The documentation of these issues is done because it is relevant information and because it responds to several commitments related to initiatives or measurements to which Grupo EPM has willingly adhered. And since public disclosure of information is necessary, the Sustainability Report is the best way to share it.

Back to content

Sustainability Report

2023

Alignment with the global development agenda – SDG

Grupo·epm

Alignment with the global development agenda – SDG

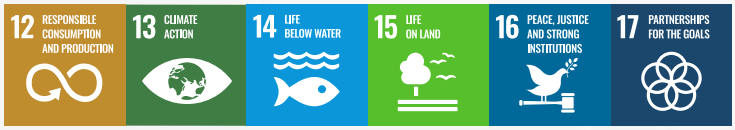
Sustainable Development Goals – SDG

*The **business purpose of Grupo EPM** "contributing to the harmony of life for a better world" aligns with the "Architecture for a better world" approach. It includes the interest groups' perspective in identifying the relevant topics in sustainability, material topics, which helps adjust the business goals with sustainable human development. In this sense, it acknowledges the role that companies and their interest groups have played in meeting the challenges that humanity faces and to do so uses the Agenda 2030 and the Sustainable Development Goals as a guideline.*

In the Special Edition of Progress towards the Sustainable Development Goals: Towards a Rescue Plan for People and Planet report, presented by the UN Secretary-General Antonio Guterres, he states five important recommendations to save the Goals and accelerate the implementation from here to 2030. In the third recommendation "Breaking through to a better future for all", where despite the desolating outlook on the achievement of the Sustainable Development Goals, when we are halfway to our 2030 deadline, he states we can still turn things around, because the data shows what we can do it. He mentions that there "has been progress in a number of key areas from energy to Internet access and more. There is also ample evidence that the transformation demanded by the Goals is one of immense opportunity. And in the years since 2015, we have seen Governments, the private sector and the general public embracing the Sustainable Development Goals. The Goals remain a truly inspiring and unifying compass and transformative progress can be made even in the face of adversity."[1]

[1] https://unstats.un.org/sdgs/files/report/2023/secretary-general-sdg-report-2023--ES.pdf

The **purpose** of **Grupo EPM Contributing to the harmony of life for a better world,** helps reconcile the business goal achievement with the contribution to the Sustainable Development Goals (SDGs) that are proposed in the Global development agenda 2015 – 2030.



Sustainable Development Goals that are prioritized in Grupo EPM

Connection of the Sustainable Development Goals with the material topics and strategic goals of Grupo EPM

SUSTAINABLE DEVELOPMENT GOALS	Material topic		Approach	Perspectives	Strategic goals - Company
6, 7, 9, 17		Access and affordability	Service coverage	Operations	▶ Manage operations effectively ▶ Include new businesses and solution
			Generate solutions of public utilities	Customers and markets	Grow in markets, businesses, and solutions
6, 7, 9, 12, 13, 17		Quality and safety of products and services	Service characteristics	Operations	Manage operations effectively
			Customer and user support	Customers and market	Deliver a unique and positive customer experience

Connection of the Sustainable Development Goals with the material topics and strategic goals of Grupo EPM

SUSTAINABLE DEVELOPMENT GOALS	Material topic	Approach	Perspectives	Strategic goals - Company
16 PEACE, JUSTICE AND STRONG INSTITUTIONS; 17 PARTNERSHIPS FOR THE GOALS	**Corporate government**	Balance between the decisions made by the Medellin District and the corporate management	Learning and development	Strengthen the institutional solidity through the Corporate Government
		Ethics in actions		
8 DECENT WORK AND ECONOMIC GROWTH; 10 REDUCED INEQUALITIES; 17 PARTNERSHIPS FOR THE GOALS	**Employee well-being and adaptability**	Adaptability	Learning and development	Comprehensively develop organizational capabilities
		Organizational clarity		
		Personal and professional growth		
6 CLEAN WATER AND SANITATION; 7 AFFORDABLE AND CLEAN ENERGY; 8 DECENT WORK AND ECONOMIC GROWTH; 10 REDUCED INEQUALITIES; 16 PEACE, JUSTICE AND STRONG INSTITUTIONS; 17 PARTNERSHIPS FOR THE GOALS	**Human Rights**	Residential public utilities as a way of fulfilling rights	Customers and markets	Establish collaborative links with interest groups
		Due diligence in human rights	Operations	Manage operations effectively
6 CLEAN WATER AND SANITATION; 7 AFFORDABLE AND CLEAN ENERGY; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 11 SUSTAINABLE CITIES AND COMMUNITIES; 17 PARTNERSHIPS FOR THE GOALS	**Technology and innovation**	Adaptation to new technologies	Operations	▶ Include new solutions ▶ Manage operations effectively
		Education and training in new technologies	Learning and development	Comprehensively develop organizational capabilities

Connection of the Sustainable Development Goals with the material topics and strategic goals of Grupo EPM

SUSTAINABLE DEVELOPMENT GOALS	Material topic		Approach	Perspectives	Strategic goals - Company
16 PEACE, JUSTICE AND STRONG INSTITUTIONS; 17 PARTNERSHIPS FOR THE GOALS		Transparency	Relationship building to generate and maintain trust and reputation	Customers and markets	Establish collaborative links with interest groups
			Information regarding the recruiting process of the Grupo EPM People	Learning and development	Strengthen the institutional solidity through the Corporate Government
			Information regarding the hiring and recruiting of contractors		
6 CLEAN WATER AND SANITATION; 7 AFFORDABLE AND CLEAN ENERGY; 8 DECENT WORK AND ECONOMIC GROWTH; 16 PEACE, JUSTICE AND STRONG INSTITUTIONS; 17 PARTNERSHIPS FOR THE GOALS		Financial strength	Competitiveness and sustainability in businesses	Value generation	Increase the value for Grupo EPM and the interest groups
				Operations	Manage operations effectively
			Regulatory management of rates	Learning and development	Comprehensively develop organizational capabilities

Connection of the Sustainable Development Goals with the material topics and strategic goals of Grupo EPM

	Material topic	Approach	Perspectives	Strategic goals - Company
6 Clean water and sanitation; 7 Affordable and clean energy; 13 Climate action; 14 Life below water; 15 Life on land; 17 Partnerships for the goals	**Water and biodiversity**	Joint responsibility in caring for water and biodiversity	Value generation	Increase the value for Grupo EPM and the interest groups
			Customers and markets	Establish collaborative links with interest groups
			Operations	Manage operations effectively
6 Clean water and sanitation; 7 Affordable and clean energy; 13 Climate action; 15 Life on land; 17 Partnerships for the goals	**Climate change**	Reduction in GHG emissions	Value generation	Increase the value for Grupo EPM and the interest groups
			Customers and markets	Establish collaborative links with interest groups
		Resilient infrastructure	Operations	Manage operations effectively
6 Clean water and sanitation; 11 Sustainable cities and communities; 7 Affordable and clean energy; 13 Climate action; 17 Partnerships for the goals	**Renewable energies**	Offer clean and reliable solutions	Operations	Include new businesses and solutions
			Customers and markets	▶ Grow in markets, businesses, and solutions ▶ Deliver a unique and positive customer experience

Sustainable Development Goals – Most relevant SDG milestones in the global context and in Grupo EPM

Year	Globally	Grupo·epm
2016	**First United Nation SDG report** Establishes reference values for the work of the sustainability development agenda for the next 15 years.	**Identifies objectives for the priority SDGs for Grupo EPM, including** the SDGs that are highlighted in the image. Associates SDGs to initiatives and a Balanced Scorecard of Grupo EPM's business plan. Strengthens the business plan 2017 - 2020 Applies SDGs as drivers of the material topics' challenges.
2017	**Second United Nation SDG report** Advances across regions, persons and different genders, ages, richness levels and localities are not equal. To attain the bold vision of the 2030 Agenda, progress should be faster and more inclusive.	**Strengthen connections between material topics of Grupo EPM and SDGs.** By identifying the emphasis or the specific material topics in the territories helps to improve the connection with the SDGs and to act appropriately.
2018	**Third United Nation SDG report** There have been advances to guarantee energy access, especially in developing countries. However, national priorities and strengthened political ambitions are still missing to lead the world to achieve the energy objectives for 2030.	**Transmits the SDGs, specifically to suppliers and contractors** and promotes their application in personal and business activities through alliances with companies and institutions of different segments that share their practices to contribute to sustainable human development.
2019	**Fourth United Nation SDG report** Climate change threatens progress in all areas of sustainable development. The increase of inequality between and within the countries needs urgent attention. Progress has been slow in many SDGs and the world's response hasn't been ambitious enough.	**Starts to measure EPM's contribution to the SDGs** from the SDGs that are a priority for Grupo EPM, tries to express its contribution to these objectives.

Year	Globally	Grupo·epm
2020	**Fifth United Nation SDG report** Before 2020, there were unequal advances and delays in complying with the SDGs. The crisis that arose from COVID-19 threatens lives and means of livelihood, which makes it even more difficult to achieve the Goals.	**Extends the measurement of the contribution to the SDGs to other priority objectives of the Group.** Contributes to the management of the pandemic crisis, specifically with actions in the 6, 7 and 8 SDGs towards customers-users and suppliers, amidst the global threats.
2021	**Sixth United Nation SDG report** The current crisis poses a risk to decades of advances in development, delays even more the urgent transition towards economies that are more ecological and inclusive and diverts even more the SDGs progress. Challenges are huge, but there is also reason to be hopeful. The COVID-19 crisis demonstrated the inspiring resilience of communities, highlighted the heroic job of essential workers in countless fields and facilitated the fast expansion of social protection, accelerated the digital transformation and an unprecedented global collaboration in vaccine development.	**Increase the number of indicators that are used to report the contribution to the SDGs that are a priority for Grupo EPM.** The contribution report is used on even more companies of the Group.
2022	**Seventh United Nation SDG report** The 2030 Sustainable Development Agenda is in great danger due to several progressive crisis that are interrelated. The most important ones are COVID-19, climate change and armed conflicts. Each one of these crises and their complex interactions impact all the SDGs and generate dire consequences in food and nutrition, health, education, environment, peace, and security.	**Grupo EPM increases its priority objectives and the number of indicators that it uses to report the contribution to the priority SDGs for Grupo EPM.** From the material topics that include the voice of the interest groups that were approved in 2022, the objectives associated with SDG 11 and 14 are prioritized.

Year	Globally	Grupo·epm
2023	**SDG report to United Nations 2023** "The global electricity access rate increased from 87 per cent in 2015 to 91 per cent in 2021, serving close to an additional 800 million people." "Renewable sources power nearly 30 per cent of energy consumption in the electricity sector, but challenges remain in heating and transport sectors. Developing countries experience 9.6 per cent annual growth in renewable energy installation, but despite enormous needs, international financial flows for clean energy continue to decline." "Water use efficiency has risen by 9 per cent, but water stress and water scarcity remain a concern in many parts of the world. In 2020, 2.4 billion people lived in water-stressed countries. The challenges are compounded by conflicts and climate change." "Key strategies to get Goal 6 back on track include increasing sector-wide investment and capacity-building, promoting innovation and evidence-based action, enhancing cross-sectoral coordination." "Between 2015 and 2022, the proportion of the world's population with access to safely managed drinking water services and sanitation services signifies an additional 687 million, 911 million and 637 million people gaining access to these essential services respectively." ***Source:*** *https://mexico.un.org/es/239254-informe-sobre-los-objetivos-de-desarrollo-sostenible-2023-edici%C3%B3n-especial*	Grupo EPM companies continue contributing to the prioritized objectives. The most important advances are: ▶ Giving universal and equitable access to water and reducing water contamination by treating wastewat. ▶ Protecting ecosystems, increasing coverage and implementing energy efficiency actions. ▶ Delivering solutions through non-conventional renewable energy sources, that allow to take this service to difficult access regions. ▶ Managing innovation that contributes to materialize new solutions, capacities, and businesses for the business group. ▶ Protecting labor rights and promoting a safe work environment for all the workers, not only in own operations, but in the ones performed with contractors. ▶ Supporting productive activities in the territories where the companies are present, by generating decent jobs and developing their suppliers.

EPM's contribution to the Sustainable Development Goals – SDG

Through its 17 goals and 169 targets, SDGs constitute a global agenda that revolves around the main challenges and opportunities of humanity, projected to 2030. Its management happens locally, and the business sector is responsible for it when carrying out its business activities. The contribution to the Sustainable Development Goals inspires Grupo EPM and fulfills its business purpose.

To measure Grupo EPM's contribution to the SDGs, the goals that were more closely related to the service provision were prioritized, since they contribute the most to human sustainable development. In 2019 the first contributions were measured and this process has gradually increased from 2020 to the other prioritized goals and Group companies. During 2021, all the companies of Grupo EPM reported their contribution to the prioritized SDGs, with their corresponding indicator. During 2022, new goals associated to SDG 11 and SDG 14 were prioritized.

During 2023, Grupo EPM continued contributing to the SDGs with all its companies, specifically in issues related to drinking water, sanitation, affordable and clean energy offer, quality and safety of service provision, innovation and technology aimed at closing gaps, generating opportunities, contributing to strong and open institutions, respect for human rights and commitment with the environment.

Fundación EPM's contribution to SDG 4 should be emphasized for being part of its business and for contributing to the SDGs prioritized for Grupo EPM.

The measurement of Grupo EPM's contribution to the SDGs includes the methodological parameters of the monitoring process within the macro-process of Integrated Planning. The proposed models to measure the contributions to SDGs are the national development plans of the countries where the Group's companies are present and the Global Indicator Framework.

GDS targets prioritized for Grupo EPM

6.1	Achieve universal and equitable access to safe and affordable drinking water for all..
6.2	Achieve access to adequate and equitable sanitation and hygiene for all and end open defecation.
6.3	Improve water quality by reducing pollution and eliminating dumping.
6.6	Protect and restore water-related ecosystems, including forests, mountains, wetlands, rivers, aquifers, and lakes.
7.1	Ensure universal access to affordable, reliable, and modern energy services.
7.2	Increase substantially the share of renewable energy in the global energy mix.
7.3	Double the world rate of improvement in energy efficiency.
8.3	Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises.
8.8	Protect labor rights and promote safe and secure working environments for all workers.
9.5	Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries.
10.2	Empower and promote the social, economic, and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.
11.2	Provide access to safe, affordable, accessible, and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.
12.5	Substantially reduce waste generation through prevention, reduction, recycling, and reuse.
13.2	Integrate climate change measures into national policies, strategies, and planning.
14.1	Prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities.

15.1 Ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains, and drylands.

15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and protect and prevent the extinction of threaten.

16.6 Develop effective, accountable, and transparent institutions at all levels.

17.7 Encourage and promote effective public, public-private and civil society partnerships building on the experience and resourcing strategies of partnerships.

Contributions to the Sustainable Development Goals of the prioritized goals for Grupo EPM

SDG 6: Clean water and sanitation

Goal	Indicator	Company	Value	Unit
6.1 Achieve universal and equitable access to safe and affordable drinking water for all.	Total number of customers with access to drinking water service.	EPM	1,424,192	Customers[1]
		Aguas Regionales	112,297	
		Aguas Malambo	26,115	
		Aguas Oriente	6,703	
		ADASA	188,783	
6.2 Achieve access to adequate and equitable sanitation and hygiene for all.	Total number of customers with sanitation service.	EPM	1,406,377	
		Aguas Regionales	91,374	
		Aguas Malambo	23,846	
		Aguas Oriente	6,449	
		ADASA	188,594	
	Total number of customers in Medellín with solid waste collection.	Emvarias	965,257	
	Universalization of the solid waste collection service..	Emvarias	99.33[2]	%

SDG 6: Clean water and sanitation

Goal	Indicator	Company	Value	Unit
6.3 Improve water quality by reducing pollution and eliminating dumping..	Volume of water treated in wastewater plan.	EPM	54[3]	Mm3
		Aguas Regionales	2[3]	
		Aguas Nacionales	121	
		TICSA	142	
		Adasa	3	
6.6 Protect and restore water-related ecosystems, including forests, mountains, wetlands, rivers, aquifers, and lakes.	Extension of the water-related ecosystem.	EPM	54,248[4]	Ha
		CHEC	6,831[4]	
		CENS	3,128[4]	
		Emvarias	625[4]	
		HET	1,998[4]	

[1] *Corresponds to residential and non-residential customers.* See chapter | Our Group

[2] *Calculated as collected tons of waste vs. produced tons according to production per capita.*

[3] *EPM and Aguas Regionales also have other mechanisms of treating wastewater such as FAFA (anaerobic filters with ascending flow) and oxidation ponds.*

See chapter | Our Group

[4] *Contribution to the conservation of natural forests and to restoration and reforestation. This indicator also contributes to the SDG 15.1*

See Material Topic | Water and biodiversity

SDG 7: Attainable and clean energy

Goal	Indicator	Company	Value	Unit
7.1 Ensure universal access to affordable, reliable, and modern energy services.	Total number of customers with access to electric energy service.	EPM	2,835,290	Customers[1]
		CHEC	552,347	
		CENS	612,329	
		ESSA	921,080	
		EDEQ	218,366	
		Afinia	1,758,496	
		DELSUR	447,223	
		ENSA	551,136	
		EPM Guatemala	1,486,735	

SDG 7: Attainable and clean energy

Goal	Indicator	Company	Value	Unit
7.1 Ensure universal access to affordable, reliable, and modern energy services.	Total number of customers with access to gas service.	EPM	1,472,475	Customers[1]
	Average duration of the electricity service interruption during the year - SAIDI.	EPM	12.42	Hours[2]
		CHEC	26.56	
		CENS	27.33	
		ESSA	19.84	
		EDEQ	5.21	
		Afinia	74.86	
		DELSUR	22.41	
		ENSA	15.12	
		EPM Guatemala	5.46	
	Average amount of the electricity service interruption during the year – SAIFI.	EPM	7.78	Times[2]
		CHEC	16.97	
		CENS	6.90	
		ESSA	9.96	
		EDEQ	4.20	
		Afinia	50.85	
		DELSUR	9.80	
		ENSA	9.94	
		EPM Guatemala	3.47	
	Duration equivalent of the gas service interruption – DES.	EPM	0.00	Hours
7.2 Increase substantially the share of renewable energy in the global energy mix.	Energy generation from wind and solar renewable sources.	EPM	22	MW[3]
	Energy intensity in the drinking water supply.	EPM	162.97	kWh / m³ of purified water
		Aguas Regionales	175.09	
		Aguas Malambo	414.29	
		Aguas Oriente	232.18	
	Energy intensity in the wastewater management.	EPM	0.48	kWh / m³ of treated wastewat
		Aguas Nacionales	1.02	

SDG 7: Attainable and clean energy

Goal	Indicator	Company	Value	Unit
7.3 Double the world rate of improvement in energy efficiency.	Network Operator Loss Index – IPORR.	EPM	8.90	Percentage[2]
		CHEC	7.60	
		CENS	13.60	
		ESSA	12.86	
		EDEQ	7.84	
		Afinia	26.73	
		DELSUR	8.49	
		ENSA	10.26	
		EPM Guatemala	4.65	
	Self-supplied energy from renewable sources.	EPM	98,371.55	MWh
		CHEC	81.17	
		CENS	279.48	
		ESSA	44.83	
		EDEQ	95.51	
		DELSUR	22.94	
		ENSA	424.80	
		EPM Guatemala	22.56	
		Aguas Nacionales	39,514.87	
		Aguas Oriente	19.75	
	Total energy consumption.	EPM	850,943	MWh[4]
		CHEC	84,468	
		CENS	7,092	
		ESSA	9,022	
		EDEQ	1,697	
		Afinia	8,309	
		DELSUR	4,358	
		ENSA	8,706	
		EPM Guatemala	4,471	
		TICSA	3,441	
		Emvarias	80,288	

SDG 7: Attainable and clean energy

Goal	Indicator	Company	Value	Unit
7.3 Double the world rate of improvement in energy efficiency.	Total energy consumption.	Aguas Nacionales	126,550	MWh[4]
		Aguas Regionales	6,940	
		Aguas Malambo	5,279	
		Aguas Oriente	228	
		ADASA	160,618	

[1] *Corresponds to residential and non- residential customers.* See chapter | Our Group

[2] See material topic | Quality and safety of products and services

[3] See chapter | Our Group, *generation mix section.*

[4] See supplementary issue | Sustainable production and consumption

SDG 8: Decent job and economic growth

Goal	Indicator[1]	Company	Value	Unit
8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises.	Direct employment generati	Grupo EPM	17,297	Jobs
	External employment (suppliers and contractors).	Grupo EPM en Colombia	37,600	Jobs
8.8 Protect labor rights and promote safe and secure working environments for all workers.	Rate of labor formality.	Grupo EPM	100	Percentage
	Index of incapacitating injuries – ILI.	EPM	0.85	N.A.
		CHEC	0.16	
		CENS	0.18	
		ESSA	0.16	
		EDEQ	0.14	
		Afinia	0.01	
		DELSUR	0.01	
		Emvarias	0.17	
		Aguas Nacionales	0.32	
		Aguas Regionales	1.67	

SDG 8: Decent job and economic growth

Goal	Indicator[1]	Company	Value	Unit
8.8 Protect labor rights and promote safe and secure working environments for all workers.	Index of incapacitating injuries – ILI.	Aguas Malambo	1.35	N.A.
		Aguas Oriente	0.49	
		ADASA	0.80	
		Fundación EPM	0.03	

[1] See chapter | Our Group and See material topic | Employee well-being and adaptability

SDG 9: Industry, innovation and infrastructure

Goal	Indicator[1]	Company	Value	Unit
9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries.	Investment on innovation	EPM	31,769	Million COP[1]
		CHEC	307	
		CENS	761	
		EDEQ	12	

[1] See material topic | Technology and innovation

SDG 10: Reduce inequalities

Goal	Indicator[1]	Company	Value	Unit
10.2 Empower and promote the social, economic, and political inclusion of all.	Participation of disabled people in the personnel plant.	EPM	1.2	Percentage[1]
		Fundación EPM	2.8	

[1] See material topic | Human rights *Institutional management in human rights* See material topic | Employee well-being and adaptability *personnel plant section.*

SDG 11: Sustainable cities and communities

Goal	Indicator[1]	Company	Action performed	Unit
11.2 Provide access to safe, affordable, accessible, and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.	Implement actions that contribute to improving sustainable mobility in the territories of the Grupo EPM companies.	EPM	**Sustainable mobility:** Installation of natural gas for vehicles in more than 70 taxis.	Implemented actions in sustainable mobility
		EDEQ	**Electric mobility:** Free solar energy charging station that charges eight two-wheeled electric vehicles simultaneously (motorcycles, bicycles, and scooters). This is a partnership with the Armenia Mayor's Office.	
		EPM Guatemala	**Electric mobility:** 6 electric vehicle with fleet, installation and start up in 18 fast charge places..	
		Emvarias	**Sustainable mobility:** 50 new semi-trucks that substitute 25 gas vehicles and 25 diesel vehicles that already finished their useful life.	
		Grupo EPM	Accumulated 5,279 plug-in electric vehicles and 1,700 conversions to natural gas for vehicles by reconverting vehicles and hybrid systems. Implement the Sustainable Business Mobility Plans that promote sustainable and responsible habits in the daily transportation of their workers.	

[1] See material topic | Climate change

SDG 12: Responsible consumption and production

Goal	Indicator	Company	Value	Unit
12.5 Substantially reduce waste generation through prevention, reduction, recycling, and reus.	Percentage of used waste.	EPM	42.52	%

SDG 12: Responsible consumption and production

Goal	Indicator	Company	Value	Unit
12.5 Substantially reduce waste generation through prevention, reduction, recycling, and reuse.	Percentage of used waste	CHEC	53.91	%
		CENS	2.04	
		ESSA	94.31	
		EDEQ	92.61	
		Afinia	95.30	
		DELSUR	98.53	
		ENSA	67.58	
		EPM Guatemala	98.30	
		HET	31.51	
		Aguas Regionales	0.79	
		Aguas Nacionales	0.02	
		Aguas de Malambo	0.45	
		Aguas Oriente	25.00	
		Fundación EPM	11.85	

[1] See supplementary issue | Sustainable production and consumption

SDG 13: Climate action

Goal	Indicator	Company	Value	Unit
13.2 Integrate climate change measures into national policies, strategies, and planning.	Reduction of CO2 emissions - Scope 1, 2 and 3.	EPM	1,819,348.40	tCO_2e reduced[1]
		CHEC	655.94	
		CENS	99.96	
		ESSA	2,010.39	
		EDEQ	95.47	
		Afinia	15,679.13	

SDG 13: Climate action

Goal	Indicator	Company	Value	Unit
13.2 Integrate climate change measures into national policies, strategies, and planning.	Reduction of CO_2 emissions - Scope 1, 2 and 3.	DELSUR	694.46	tCO_2e reduced[1]
		ENSA	3,347.00	
		EPM Guatemala	78.49	
		Aguas Nacionales	123,506.16	
		Aguas Malambo	9.55	
		Aguas Oriente	0.97	

[1] See material topic | Climate change

SDG 14: Life below water

Goal	Indicator[1]	Company	Performed action
14.1 Prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities.	Actions that contribute to protecting marine ecosystems.	Grupo EPM	Implement environmental management measures like sanitation and protection of water and biodiversity in ecosystems such as swamps, lagoons, rivers, among others.

[1] See material topic | Water and biodiversity

SDG 15: Life on land

Goal	Indicator[1]	Company	Value	Unit
15.1 Ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains, and drylands.	Significant areas for taking care of water and biodiversity.	EPM	75,676	Ha
		CHEC	6,701	
		Emvarias	271	
		HET	2,416	

SDG 15: Life on land

Goal	Indicator[1]	Company	Value	Unit
15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and protect and prevent the extinction of threatened species.	Number of species that have a threat report according to IUCN in own property, thus contributing to protect flora and fauna species.	EPM	146	Species
		CHEC	1	
		CENS	14	
		ESSA	49	
		HET	40	
		Aguas Regionales	4	
		Aguas Nacionales	32	
		Aguas Malambo	1	
		Emvarias	44	

[1] See material topic | Water and biodiversity

SDG 16: Peace, justice and strong institutions

Goal	Indicator	Company	Value	Unit
16.6 Develop effective, accountable, and transparent institutions at all levels[1].	Institutional Performance Index – FURAG	EPM	85.8	Points
		Emvarias	65.9	
		Aguas Regionales	61.0	
		Fundación EPM	72.9	
	Group companies that applied the ethical climate survey with the interest group Gente Grupo EPM[1]	Grupo EPM	18	Companies

[1] See material topic | Transparency *The companies that applied the ethical climate survey are: EPM, CHEC, CENS, ESSA, EDEQ, Afinia, Emvarias, Aguas Nacionales, Aguas Regionales, Aguas de Malambo, Aguas de Oriente, Adasa, Ticsa, Delsur, ENSA, EPM Guatemala, HET and Fundación EPM.*

SDG 17: Partnerships for the goals

Company	Allies and main purpose of the Alliance (non-comprehensive list)	Content related to the Sustainability Report	Associated SDG
Grupo EPM	**Environmental authorities and other actors** Join efforts to manage environmental and social themes of common interest in the territories where Grupo EPM is located. This is for caring for water, protecting biodiversity, mitigating and adapting to climate change, environmental education, community participation, among others.	Water and biodiversity Climate change Transparency	13 Climate action, 15 Life on land, 16 Peace, justice and strong institutions
	Environmental authorities Pay environmental services to protect natural ecosystems and improve the quality of life of the communities. It includes the program Banc02.	Water and biodiversity Climate change Transparency	13 Climate action, 15 Life on land, 16 Peace, justice and strong institutions
	Global Compact Achieve the 10 principles of the Global Compact.	Employee well-being and adaptability Human rights Water and biodiversity Climate change Transparency	8 Decent work and economic growth, 10 Reduced inequalities, 13 Climate action, 15 Life on land, 16 Peace, justice and strong institutions
	Educational institutions and companies Innovate: Promote innovation.	Technology and innovation	9 Industria, innovación e infraestructura, 16 Peace, justice and strong institutions
	National Operating Council and XM Collective agreement in the Electrical sector regarding the struggle against corruption and promoting free competition.	Transparency	7 Affordable and clean energy, 16 Peace, justice and strong institutions
	Colombian Ministry of Mines and Energy Alliance with the electrical service to achieve carbon neutrality by 2050.	Climate change	13 Climate action
	Ministry of Environment and Sustainable Development, Colombian Ministry of Mines and Energy National and regional technical committees of climate change: climate action plans to 2050: Alliance to face the effects of climate change.	Climate change	13 Climate action
EPM	**Medellín Municipality** Conexiones por la vida (Connections for life) program to improve the quality of life in many homes with access to water, sewage, and gas services.	Access and affordability	6 Clean water and sanitation, 7 Affordable and clean energy
	CuencaVerde Corporation Implement programs, projects and activities that contribute to conservation, environmental improvement, and protection of water resources.	Water and biodiversity	6 Clean water and sanitation, 15 Life on land

SDG 17: Partnerships for the goals

Company	Allies and main purpose of the Alliance (non-comprehensive list)	Content related to the Sustainability Report	Associated SDG
EPM	**Governorship of Antioquia** Connect home electric networks to increase the coverage in rural electrification – houses located in social stratum 1 in different subregions of the Antioquia department.	Access and affordability	7
	Taxis of Medellín Program for promoting Natural gas for vehicles so the taxis of Medellín can install it for free, thus encouraging the use of a cleaner fuel.	Access and affordability	7, 11
	Servicio Nacional de Aprendizaje - SENA Hire SENA apprentices to join EPM's personnel plant.	Human rights	8, 10
	Community Action Boards in some villages of Briceño, Ituango, Valdivia and Tarazá Create Community risk management plans by supporting the community risk management plan update in agreement with the firefighters.	Quality and safety of products and services	11, 16
	Financial Support Fund for the Energization of Interconnected Rural Areas - FAER Increase the coverage, improve the quality and continuity of electric energy service, and meet its demand in the areas of the National Interconnected System – SIN located in the EPM market by implementing the FAER projects.	Access and affordability Quality and safety of products and services	7
CHEC	**Ministry of Environment and Sustainable Development** Strengthen the GHG emission management in public and private organizations through the Carbon Neutrality National Program.	Climate change	13
	Universidad Autónoma de Manizales Study energy use from the wells of the Ruiz geothermic project. Viability and efficiency of thermo-solar technologies for heating water.	Technology and innovation Renewable energies	9
EDEQ	**Escuela de Administración y Mercadotecnia - EAM** Implement methodologies of open innovation and marketing to generate business ideas that potentiate the brand and services of EDEQ.	Technology and innovation	17
	Universidad La Gran Colombia Teach the community about mechanisms for protecting their rights and citizen participation.	Human rights	16

SDG 17: Partnerships for the goals

Company	Allies and main purpose of the Alliance (non-comprehensive list)	Content related to the Sustainability Report	Associated SDG
Afinia	**Servicio Nacional de Aprendizaje - SENA** Provide supplementary courses regarding the company's initiative Aprender para emprender (Learn to undertake) in the territories where it operates.	Human rights	8 DECENT WORK AND ECONOMIC GROWTH; 10 REDUCED INEQUALITIES
DELSUR	**La Constancia** Preserve the watershed in the metropolitan area of San Salvador by preserving the San Salvador volcano.	Water and biodiversity	15 LIFE ON LAND
	AMCHAM Technical training in strategies for strengthening human development in our operation area.	Human rights	10 REDUCED INEQUALITIES
	GIZ Project that aims to reduce the business impact on local flora and fauna, while it improves the service quality for customers and users.	Water and biodiversity	15 LIFE ON LAND
ENSA	**Fundación Eco Creando** Education regarding the importance of caring and preserving the environment.	Water and biodiversity	13 CLIMATE ACTION; 15 LIFE ON LAND
	INADEH Promote professional training, skilled labor, and job placement.	Employee well-being and adaptability	8 DECENT WORK AND ECONOMIC GROWTH
	SUMARSE Develop strategies for relating to interest groups and other actors to strengthen social participation spaces.	Transparency	16 PEACE, JUSTICE AND STRONG INSTITUTIONS
EPM Guatemala	**Ministry of labor and social welfare / Pro-blind people committee of Guatemala** Improve the work inclusion program	Employee well-being and adaptability	10 REDUCED INEQUALITIES
	Gremial de Eficiencia Energética Energy efficiency in the EPM Guatemala activities	Quality and safety of products and services	7 AFFORDABLE AND CLEAN ENERGY
	Centrarse Transmit the sustainability culture in topics such as ethics, human rights, social management, among others.	Human rights Transparency	8 DECENT WORK AND ECONOMIC GROWTH; 16 PEACE, JUSTICE AND STRONG INSTITUTIONS

SDG 17: Partnerships for the goals

Company	Allies and main purpose of the Alliance (non-comprehensive list)	Content related to the Sustainability Report	Associated SDG
EMVARIAS	**International Finance Corporation - IFC** Review different technological options for treating and assessing solid waste in Medellín, to reduce the amount that is dumped in La Pradera landfill and also maximize material and energy recovery.	Technology and innovation Sustainable production and consumption	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Fundación EPM	**Fundación Luker** Implement actions of social, environmental and education management in the territories where the organizations have impact.	Water and biodiversity Climate change Transparency	4 QUALITY EDUCATION 13 CLIMATE ACTION 15 LIFE ON LAND 16 PEACE, JUSTICE AND STRONG INSTITUTIONS
	Escuela de Ingenieros de Antioquia - EIA Create scientific competency development spaces in boys and girls from early childhood until teenagers in 11th grade.	Human rights Transparency	4 QUALITY EDUCATION 8 DECENT WORK AND ECONOMIC GROWTH 16 PEACE, JUSTICE AND STRONG INSTITUTIONS
	COMFAMA Community services in education, culture and art, employability, and managing finances at home for adults and young people.	Human rights Transparency	4 QUALITY EDUCATION 8 DECENT WORK AND ECONOMIC GROWTH 16 PEACE, JUSTICE AND STRONG INSTITUTIONS

‹ Back to content

Sustainability Report 2023

Commitments and sinergies in sustainability

Grupo·epm

Table of contents

General information

p.

Commitments and sinergies in sustainability 465

- External initiatives 467
- Sinergies for environmental management 472
- Environmental regulatory management 475

‹ Back to content

Sustainability Report

2023

External initiatives

Grupo·epm

EPM´ s commitment with sustainability initiatives

ODS	**Sustainable Development Goals 2030** 2030 Development Agenda. 17 goals focused on people, the planet, prosperity, peace and alliances.
	Architecture for a better world Corporate sustainability; priorities of the global development agenda post 2015, long-term business goals, action and collaboration platforms, market and social drivers and incentives, openness, and public accountability.
UN GLOBAL COMPACT	**Global Compact Principles** Labor rights, human rights, environment, and anti- corruption.
Business for Peace	**Business for peace - Pacto Global** Role that the companies have regarding peace topics in the territories where they have direct influence.
The CEO Water Mandate	**The CEO Water Mandate – Global Compact** Commitment of the private sector regarding water management.
RIO+20	**Río Declaration** Sustainable development.
COP21	**COP 21. The Paris Agreement** Anti-corruption and free competition.

EPM's commitment with sustainability

Global Reporting Initiative™	**Global Reporting Initiative - GRI** Global report on sustainability.
Guías Colombia	**Guías Colombia** Human rights and humanitarian international law.
TRANSPARENCIA POR COLOMBIA Capítulo Transparencia Internacional	**Transparency for Colombia** Openness indicator in public service companies.
ACCIÓN SECTORIAL DEL AGUA	**Acción sectorial del Agua** Strengthening of the governing structures and efficiency of the aqueduct and sewer companies in Colombia.
AquaRating	**AquaRating** International standard for strengthening the transformation processes and management improvement in the companies that provide aqueduct and sanitation services
Sector eléctrico Carbono neutral	**Carbon neutral electricity sector alliance by 2050** Business coordination to willingly promote carbon neutrality in Colombia
acción colectiva	**Collective action of the Colombian electricity sector** Anti-corruption and free competition

Content GRI 2-28 Affiliation to associations

EPM's sinergies with other entities

- *Agencia de Inversión y Cooperación de Medellín y el Área Metropolitana – ACI*
- *Asociación de Centros de Ciencia y Tecnología (Asssociation of Science - Technology Centers) - ASTC*
- *Asociación de Fundaciones Empresariales – AFE*
- *Asociación de Grupo de Usuarios SAP - ASUG*
- *Asociación de Servicio al Público de las Unidades de Información - Servinfo*
- *Asociación Centro de Estudios Tributarios de Antioquia – CETA*
- *Asociación Colombiana de Actores del Mercado de Carbono - Asocarbono*
- *Asociación Colombiana de Distribuidores de Energía Eléctrica – Asocodis*
- *Asociación Colombiana de Generadores de Energía Eléctrica – Acolgén*
- *Asociación Colombiana de Ingeniería Sanitaria y Ambiental – Acodal*
- *Asociación Colombiana de Relaciones de Trabajo – Ascort*
- *Asociación Latinoamericana de Operadores de Agua y Saneamiento – Aloas*
- *Asociación Latinoamericana de Tecnología Sin Zanja - Lamstt*
- *Asociación Mundial de Investigación Tecnológica e Industrial en las Organizaciones - Waitro*
- *Asociación Nacional de Empresas de Servicios Públicos y Conexos – Andesco*
- *Asociación Nacional de Gas Natural – Naturgás*
- *Asociación Nacional de Industriales - ANDI*
- *Asociación Nacional de Organismos de Evaluación de la Conformidad – Asocec*
- *BIM Forum Colombia - Camacol*
- *Cámara de Comercio de Medellín*
- *Cátedra del Agua*
- *Centro de Investigación y Desarrollo Tecnológico – Cidet*
- *Clúster Internacional de Tecnologías Limpias de Colombia*
- *Clúster Internacional de Energías Limpias de Colombia*
- *Comité Internacional de Redes de Energía - Cocre*
- *Clúster Energía Sostenible de Medellín*
- *Colombia Inteligente*
- *Comisión Nacional de Salud y Seguridad en el Trabajo del Sector Eléctrico – Ministerio de Trabajo*
- *Comité Asesor de Comercialización – CAC*
- *Comité Asesor de Planeamiento de la Transmisión – CAPT*
- *Comité Colombiano de la Comisión de Integración Energética Regional – Cocier*
- *Comité de Cumplimiento de Antioquia*
- *Comité Interinstitucional de Bibliotecas - Juntanza*
- *Comité Interinstitucional de Educación Ambiental de Antioquia – Cidea*
- *Comité Interinstitucional de Educación Ambiental Municipal de Medellín - Cideam Medellín*
- *Comité Interinstitucional del Plan de Lectura, Escritura y Oralidad de la Secretaría de Cultura Ciudadana*
- *Comité Red Accesible Medellín*
- *Comité Internacional, Encuentro Latinoamericano de Bibliotecas, Archivos y Museos - EBAM*
- *Comité Temático Interinstitucional de Cambio Climático Distrito de Medellín*
- *Comité Temático Interinstitucional de Producción y Consumo Sostenible del Distrito de Medellín*
- *Comité Universidad Empresa Estado – CUEE*
- *Consejo Colombiano de Construcciones Sostenibles - CCCS*
- *Consejo Internacional de Museos (International Council of Museums) - ICOM*
- *Consejo Mundial Empresarial de Desarrollo Sostenible en Colombia - Cecodes*
- *Consejo Mundial de Energía Colombia (World Energy Council – WEC)*
- *Consejo Nacional de Operación GAS - CNO*

EPM's sinergies with other entities

- *Consejo Nacional de Operación - CNO*
- *Corporación Ruta N Medellín*
- *Corporación Cuenca Verde*
- *Corporación Parque Arví*
- *CRUspi subscription*
- *Cuenta de Alto Costo*
- *Federación Nacional de Comerciantes Empresarios - Fenalco*
- *Gerencia del Centro (territorio comercial)*
- *Gobiernos Locales para la Sustentabilidad - ICLEI*
- *Grupo de Servicios al público de las Unidades de Información - SERVINFO*
- *Grupo de Trabajo en Derechos Humanos y Energía – Ministerio de Minas y Energía*
- *Grupo de Unidades de Información Especializadas - GUIE*
- *G8 (Grupo de Bibliotecas Universitarias)*
- *INNpulsa Colombia*
- *Instituto Colombiano de Normas Técnicas y Certificación – Icontec*
- *Instituto Colombiano de Derecho Tributario - ICDT*
- *Instituto Colombiano de Gobierno Corporativo - ICGC*
- *International Federation of Library Associations and Institutions - IFLA*
- *International Hydropower Association – IHA*
- *Instituto de Auditores Internos de Colombia – IIA*
- *Instituto Nacional de Metrología - INM*
- *Information Systems Audit and Control Association – Isaca*
- *Mesa de Derechos Humanos del Ministerio de Minas y Energía*
- *Mesa de Directivos Zona Norte*
- *Mesa del Distrito de Innovación de Medellín*
- *Mesa de Museos de Medellín – MMM*
- *Mesa Interinstitucional de las comunas 1, 3, 6 y 8*
- *Mesa Nacional de Adaptación al Cambio Climático*
- *Mesa Red de Infancia, Adolescencia y Familia de Medellín*
- *Mesas de Seguridad Zonales del Municipio de Medellín*
- *Mesas Sectoriales del Sector Eléctrico, del Gas y Agua y Saneamiento (SENA)*
- *Mesas zonales de cultura de Medellín*
- *Movimiento Global de Emprendedores de Alto Impacto – Endeavor*
- *Net Zero Climate Resilient Hydropower - OpenHydro*
- *Nodo Regional de Cambio Climático de Antioquia*
- *Organismo Nacional de Acreditación de Colombia – ONAC*
- *Plan Integral de Gestión de Cambio Climático del MADS*
- *Plataforma Regional de la Alianza Global de Operadores de Agua (Gwopa) para América*
- *Latina y el Caribe - WOP-LAC*
- *Programa Nacional de Carbono Neutralidad – Ministerio de Ambiente y Desarrollo Sostenible*
- *Red de Museos de Antioquia – RMA*
- *Red de Popularización de la Ciencia y la Tecnología en América Latina y el Caribe – RedPop*
- *Red Pacto Global – Colombia*
- *Sistema de Gestión Ambiental Municipal - Sigam*

Content GRI 2-28 Affiliation to associations

‹ Back to content

Sustainability Report 2023

Sinergies for environmental management

Grupo·epm

Sinergies for environmental management

Grupo EPM is aware of its interdependence with environment and society, since its operation is based on using natural resources and interacting with its interest groups. For this reason, we promoted forming a network of multipurpose interactions.

This is how, within a proper framework, we visualize coordinating and articulating actions with other entities operating in the territory, we identify strategic or critical issues that require joint management, thus aiming to determine, improve and maintain the interinstitutional relationships in pursuit of the strategic goal of promoting competitive and sustainable territories as the basis for ensuring the long-term viability of Grupo EPM.

One of the advantages of strategically managing relationships and of the synergies for environmental management is that it builds trust, improves reputation, promotes understanding of the complex context of operating and developing companies, uses synergies and alliances to solve problems and achieve goals that would be more difficult to attain independently, enhances processes and products based on the relationship experience and improves risk management.

Such actions support the Group's goals and generate sustainable development through an interaction that aims to find and strengthen those common topics to reach agreements that benefit both. Additionally, as part of the responsible environmental and social management it is very important to consolidate a relationship with those external entities, with which environmental and social issues are identified, that has as main purpose to develop the territories where Grupo EPM is present, the same as the viability of projects and the Organization's business operation.

During 2023, more alliances were developed to join efforts. Collaborative work was done in strategic topics such as water and biodiversity, climate change and management tasks inherent to projects and businesses. Likewise, joint environmental issues were addressed, by articulating plans, programs and activities that are developed between the entities and are based on the management plans, trying to optimize resources and perform actions that benefit the environment. This joint environmental management has been carried out through agreements, specific work groups and management plans.

During this time, the relationship between institutions was equally focused on duly managing the environmental regulations to propose and manage, before the regulatory bodies, policies, regulations and all those environmental regulations that allow to keep the interests of the business group. The elements for achieving this are: identifying regulatory changes and suggesting regulatory propositions; analyzing the regulations' impact and risks; proposal management, follow-up, and socialization of the approved regulation to transmit in businesses, projects and subsidiaries promoting its application.

Likewise, a good relationship in environmental management accelerates the process of obtaining environmental permits, concept requests, and information, among others, that are necessary for operating the infrastructure and for developing the projects according to the needs of the Group's companies that are managed with environmental authorities.

Content GRI 2-28 Affiliation to associations

‹ Back to content

Sustainability Report

2023

Environmental regulatory management

Grupo·epm

Environmental regulatory management

For Grupo EPM in Colombia, it is important to participate in building public policies and regulations that seek a social optimum that is focused on: territory sustainability, sector growth, natural resource protection, and quality of life of the population. To achieve this, it monitors public consultations and regulation proposals, identifies needs for adjusting regulations and suggests proposals; estimates impacts and risks of regulation projects or existing regulations; carries out lobbying efforts or government relations to promote these proposals and monitor the progress of regulatory proposals.

2023 Achievements

95 normative projects were identified. Of these, 46.32% were initiatives of the Colombian Congress, 42.11% of the Ministry of Environment and Sustainable Development and 11.57% of other entities.

Of these, 64 impact the provision of home public services. Recommendations for adjusting the regulations were presented for 43 projects that have high and medium impact for Grupo EPM and the sector.

16 new regulations are issued by the government. 13 have a direct impact, associated with biodiversity, energy, waste, and sociocultural topics. Of the total amount of comments, 51.4% were embraced by the Government.

By managing regulations, it is possible to influence proposals such as:

- Adjust the regional factor to one in the retributive fee for specific discharges into water for the sewage public service providers until December 31 of 2024. On this deadline, the current regulation will be adjusted, which will allow an investment according to the regions' needs (Article 25, Law 2294 of 2023. National Development Plan).
- Clearly define the environmental liability and harmonize it with environmental sanctions Law 1333 of 2009, which enables the implementation of intervention plans for orphan liabilities, either by the national government or by private entities, when they arise from activities that have an unacceptable risk level for life, human health, or the environment, and when they do not have an environmental or sectoral instrument for their control. (Article 2, Law 2327 of 2023)
- Include in Resolution 839 of 2023, RETC (Registry of emissions and contaminant transfer) methods for recording establishments in the single environmental registry, maximum date ranges for uploading information, raising awareness in the Government about the need of having interoperable platforms. This way, platform congestion is prevented, the same as non-compliance, additional costs due to economic sanctions, reputation, and operational costs.

- Draft a bill made by the sustainable mobility board of Grupo EPM, focused on regulations that the national government should issue for environmental labelling and the technology advancement fund.

Content GRI 2-28 Affiliation to associations

2024 Challenges

Challenges
Have an instrument that allows for the collection of the retributive fee for specific discharges with a regional factor that has gradual criteria and a differential treatment scheme.
Improve the current regulations of biosolid use that come from treating wastewater.
Obtain efficiencies in the processing of forest utilization given the interventions that the home public service providers must carry out to guarantee service continuity and minimize risks.
Adequate regulation of Law 2173 of 2022 about Life areas, whose goal is to restore ecosystems.
Minimize the impacts that arise from the modifications in the regulations associated to environmental licenses announced by the Government for projects of non-conventional renewable energy sources, projects with impact on water sources and its adaptations, among others.

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Aguas Regionales EPM*
- *Aguas Nacionales EPM*
- *Aguas del Oriente*
- *Aguas de Malambo*
- *Empresas Varias de Medellín - Emvarias*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Electrificadora de Santander - ESSA*
- *Empresa de Energía del Quindío - EDEQ*
- *Centrales Eléctricas del Norte de Santander - CENS*
- *Afinia*
- *Electrificadora de Santander - ESSA*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Quindío*
- *Colombia – Risaralda*
- *Colombia – Santander*
- *Colombia - Norte de Santander*
- *Colombia - Malambo, Atlántico*
- *Colombia - El Caribe*

Businesses

- *Agua*
- *Saneamiento*
- *Energía eléctrica*
- *Gas*
- *Residuos*

‹ Back to content

Sustainability Report 2023

Correspondence with sustainability initiatives

Grupo·epm

Table of contents

General information

p.

Correspondence with sustainability initiatives 478

- Global Compact 480
- Integrated Reporting(IIRC) 483
- Monitoring and evaluation of institutional performance 487
- SASB and TCFD reporting standards 491

‹ Back to content

Sustainability Report 2023

Global Compact

Grupo·epm

Correspondence of the material issues with the Global Compact principles

Global Compact Principles - GP

Material issues	Human rights		Labor standards				Environment			Anti-corruption
	01- Protection of Human Rights	02-No complicity in human rights abuses	03- Freedom of association and collective bargaining	04- Eliminate forced labor	05- Abolish child labor	06-No discrimination	07- Prevention of environmental problems	08- Promotion of environmental responsibility	09- Promotion of harmless technologies	10-Fight against corruption, extortion and bribery
Access and affordability	●									
Water and biodiversity							●	●	●	
Workplace wellbeing and adaptability	●	●	●	●	●	●				●
Quality and safety of products and services	●							●		
Climate change							●	●	●	
Human rights	●	●	●	●	●	●				

Correspondence of the material issues with the Global Compact principles

Global Compact Principles - GP

Material issues	Human rights		Labor standards				Environment			Anti-corruption
	01- Protection of Human Rights	02- No complicity in human rights abuses	03- Freedom of association and collective bargaining	04- Eliminate forced labor	05- Abolish child labor	06- No discrimination	07- Prevention of environmental problems	08- Promotion of environmental responsibility	09- Promotion of harmless technologies	10- Fight against corruption, extortion and bribery
Renewable energies							●	●	●	
Corporate governance										●
Financial strength										●
Technology and innovation							●	●	●	
Transparency										●
Sustainable production and consumption							●	●	●	

Note: *Ancillary item

‹ Back to content

Sustainability Report 2023

Integrated Reporting(IIRC)

Grupo·epm

Correspondence of the Integrated Report (IIRC) with the 2023 Sustainability Report

Contents of the Integrated Report - IIRC	Location in the Sustainability Report
General description of the organization and its external environment	*Who we are*
	How are we organized
	Staffing
	Trade union organizations
	Control environment of Grupo EPM
	Stakeholders
	Our goods and services supply cycle
	Report profile
Corporate governance	*Corporate Governance Report*
	Corporate governance
Business model	*Who we are*
	Our history
	Strategic direction
Risks and opportunities	*Strategic direction*
	Comprehensive risk management
Strategy and resource allocation	*Management reports EPM*
Performance	*Access and affordability*
	Water and biodiversity
	Workplace wellbeing and adaptability
	Quality and safety of products and services
	Climate change
	Human Rights
	Renewable energies
	Corporate governance
	Financial strength
	Technology and innovation
	Transparency
	Sustainable production and consumption
	Financial management

Correspondence of the Integrated Report (IIRC) with the 2023 Sustainability Report

Contents of the Integrated Report - IIRC	Location in the Sustainability Report
Future outlook	*Management Report EPM*
	Strategic direction
Basis for preparation and presentation	*Relevant sustainability issues - Materiality*

Principles of the Integrated Report - IIRC	Location in the Sustainability Report
Strategic focus and future direction	*Strategic direction*
Information connectivity	Correspondence of the capitals of the Integrated Report - IIRC and the material issues..
Relationship with stakeholders	*Our stakeholders*
Materiality	*Report profile*
	Relevant sustainability issues - Materiality
Accuracy	The process for the preparation of this report is led by the Sustainability Management Department of EPM, which establishes the guidelines for identifying the information to be reported. The identification of material issues and ancillary matters ensures that the report focuses on what is most relevant to management. The Web-based report allows navigating and establishing links between the different topics presented, avoiding duplication.
Reliability and integrity	The report preparation process is based on an interlocution network made up of people from the different businesses, companies and departments of the corporate group, which favor the reliability and traceability of the information reported. See also: External verification.
Comparability and consistency	*Correspondence with sustainability initiatives*
	Relevant sustainability issues - Materiality

Correspondence between the capitals of the Integrated Report - IIRC and the material issues

Material issues	Capitals					
	Natural	Human	Social	Intellectual	Financial	Operational
Access and affordability			●		●	●
Water and biodiversity	●					
Workplace wellbeing and adaptability		●	●	●		
Quality and safety of products and services			●			●
Climate change	●					●
Human Rights			●			
Renewable energies	●			●		
Corporate governance			●		●	
Financial strength					●	●
Technology and innovation		●		●		●
Transparency		●	●			

Contents of the Integrated Report - IIRC	Location in the Sustainability Report
Human	All renewable and non-renewable environmental resources and processes that provide the goods and services that sustain an organization's past, current or future prosperity.
Human	People's competencies, capabilities and experience, and their motivations to innovate.
Social	Institutions and relationships within and between communities, stakeholders and other networks and the ability to share information to improve individual and collective wellbeing.
Intellectual	Intangibles based on the organization's knowledge.
Financial	The amount of funds available in organizations for use in the production of goods or the provision of services obtained through financing, such as debt, equity or grants, or generated through operations or investments.
Operational	Manufactured physical objects that are available to an organization for use in the production of goods or the provision of services.

‹ Back to content

Sustainability Report 2023

Monitoring and evaluation of institutional performance

Grupo·epm

Integrated Planning and Management Model - MIPG

MIPG	Company language	Correlation with 2023 Sustainability Report
1. Human Talent Component	Workplace wellness and benefits Quality of life Organizational climate Training and development Personnel selection Occupational health and safety Ethics and values Health care and health contingency	*People of Grupo EPM*
		Workplace wellbeing and adaptability
		Workplace wellness and benefits
		Quality of life
		Training and development
		Retirees and pensioners
		Trade union organizations
		Staffing
		Occupational health and safety
		Personnel selection
		Ethical management
		Pandemic management
		Corporate transparency
2. Strategic Direction and Planning Component	Strategic direction-Strategic focuses-Challenges Corporate business and service plans Corporate governance Business projects Strategic objectives - CMI Risk management Budget management	*Strategic focuses*
		Strategic direction
		Corporate Governance Report
		Universalization and expansion of the service
		Strategic objectives - CMI
		Comprehensive risk management

Integrated Planning and Management Model - MIPG

MIPG	Company language	Correlation with 2023 Sustainability Report
3. Values-based management for results component	Organizational structure Stakeholders Processes (Control of non-conforming product) Digital Governance Anti-corruption and Citizen Service Plan and Rationalization of procedures Regulations and legal defense Citizen participation Citizen service ITA Transparency and Access to Information Index Information technology	*How are we organized*
		Stakeholders
		Quality and continuity of service
		Safety in the provision of the service
		Transparency practices (including Digital Governance)
		Regulatory management
		Relations with stakeholders and other players
		Stakeholder engagement
		Perception monitoring (including ITA Measurement
		Integrated Management and Planning Model – MIPG
		Information technology
4. Evaluation of results component	Results of customer satisfaction surveys Complaints and claims (product, service) Monitoring and evaluation of institutional performance (results of internal audits SGC EPM and improvement plans) Process indicators Monitoring of individual performance Accountability Financial results	*Customer satisfaction*
		Loss management
		Customer service
		Integrated Management and Planning Model - MIPG
		Optimization of operations: Business performance
		Financial management EPM
		Suppliers and contractors
		Accountability
		Accountability
		Financial results
		Relations with stakeholders and other players

Integrated Planning and Management Model - MIPG

MIPG	Company language	Correlation with 2023 Sustainability Report
5. Information and Communication Component	Communication with stakeholders Transparency and access to information Document management Information management Budget management Digital transformation Information management	*Relations with stakeholders and other players* *Participation of stakeholders* *Education and communication to customers, users and community* *Transparency practices* *Services of the future in the context of smart cities and the fourth industrial revolution*
6. Knowledge and innovation management	Innovation management Services of the future	*Digital transformation* *Services of the future in the context of smart cities and the fourth industrial revolution*
7. Internal control	Independent audit results (internal and external audits) Comprehensive risk management or risk assessment Control activities Lines of defense Information and communication Organizational culture based on information, control and evaluation for decision making and continuous improvement	*Control environment of Grupo EPM* *Accountability* *Comprehensive risk management*

‹ Back to content

Sustainability Report 2023

SASB and TCFD reporting standards

Grupo·epm

Correspondence of contents with SASB standards

Material subject / chapter	SASB Issue	Description	
Access and affordability	Affordability of water and energy and access to water	IF-EU-240a.4	Analysis of the effect of external factors on the affordability of electricity, gas and water for customers, including the economic conditions of the territory served
		IF-GU-240a.4	
		IF-WU-240a.4	
Workplace wellbeing and adaptability	Internships	IF-WM-310a.1	Percentage of active workforce covered by collective bargaining agreements
	Workforce health and safety	IF-EU-320a.1	(1) Total Recordable Incident Rate (TRIR), (2) fatality rate and (3) near-miss frequency rate (NMFR)
		IF-WM-320a.1	(1) Total Recordable Incident Rate (TRIR),(2) fatality rate, 3) near-miss frequency rate (NMFR) for (a) direct employees and (b) contract employees
Quality and safety of products and services	Power grid resistance	IF-EU-550a.2	(1) Average System Interruption Duration Index (SAIDI), (2) Average System Interruption Frequency Index (SAIFI), and (3) Average Customer Interruption Duration Index (CAIDI), which includes days on which severe events occur.
	Workforce health and safety	IF-WM-320a.1	(1) Total Recordable Incident Rate (TRIR),(2) fatality rate, (3) near-miss frequency rate (NMFR) for (a) direct employees and (b) contract employees.
Renewable energies	Ecological effects of project development	RR-ST-160a.2	Description of efforts in the development of solar energy system projects to address community and ecological effects.
	Management of energy infrastructure integration and related regulations	RR-ST-410a.1	Description of the risks associated with the integration of solar energy into the existing energy infrastructure and analysis of efforts to manage these risks.
		RR-ST-410a.2	Description of risks and opportunities related to the energy policy and its effect on the integration of solar energy into the existing energy infrastructure.
Technology and innovation	Ecological effects of project development	RR-ST-160a.2	Description of efforts in the development of solar energy system projects to address community and ecological effects.
	Management of energy infrastructure integration and related regulations	RR-ST-410a.1	Description of the risks associated with the integration of solar energy into the existing energy infrastructure and analysis of efforts to manage these risks.
		RR-ST-410a.2	Description of risks and opportunities related to the energy policy and its effect on the integration of solar energy into the existing energy infrastructure.

Correspondence of contents with SASB standards

Material subject / chapter	SASB Issue	Description	
Climate change	Greenhouse gas emissio	IF-WM-110a.2	Total landfill gas generated.
Sustainable production and consumption	Fleet fuel management	IF-WM-110b.1	(1) fleet fuel consumed, (2) percentage of natural gas, (3) renewable percentage
Our group	Energy affordability	IIF-EU-240a.4	Analysis of the effect of external factors on the affordability of electricity for customers, including the economic conditions of the territory served.
		IF-GU-240a.4	Analysis of the effect of external factors on the affordability of gas for customers, including economic conditions in the territory served
	Affordability and access to water	IF-WU-240a.4	Analysis of the effect of external factors on the affordability of water for customers, including economic conditions in the territory served
Management Report EPM	Ecological effects of project development	RR-ST-160a.2	Description of efforts in the development of solar energy system projects to address community and ecological effects.
	Management of energy infrastructure integration and related regulations	RR-ST-410a.1	Description of the risks associated with the integration of solar energy into the existing energy infrastructure and analysis of efforts to manage these risks.
Commitments and synergies for sustainability		RR-ST-410a.2	Description of risks and opportunities related to the energy policy and its effect on the integration of solar energy into the existing energy infrastructure.

Correspondence of contents with the TCFD guide

Material subject / chapter	TCFD Issue	Description
Climate change	Strategy	Resilience of the organization's strategy considering different climate scenarios, including a 2°C or lower scenario.
		Impact of climate-related risks and opportunities on the organization's business, strategy and financial planning.
		Climate-related risks and opportunities identified by the organization in the short, medium and long term.
	Risk control	Organizational processes for managing climate-related risks.
		Organizational processes for identifying and assessing climate-related risks.
		Processes for identifying, assessing and managing climate-related risks in the organization.
	Metrics and objectives	Objectives used by the organization to manage risks and opportunities related to climate and performance against objectives.
		Parameters used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management.
		Disclosure of scope 1, scope 2, scope 3 greenhouse gases (GHG), and risks.
Corporate Governance report	Gobernanza	Management's oversight on issues related to risks and opportunities associated with climate change.
		Management's role in assessing and managing the risks and opportunities associated with climate change.
	Strategy	Impact of climate-related risks and opportunities on the organization's business, strategy and financial planning.
		Climate-related risks and opportunities identified by the organization in the short, medium and long term.
Our group | Integrated risk management	Strategy	Organizational processes for managing climate-related risks.
		Organizational processes for identifying and assessing climate-related risks.
		Processes for identifying, assessing and managing climate-related risks in the organization.

‹ Back to content

Sustainability Report 2023

Stakeholders

Grupo·epm

Table of contents

General information

p.

Stakeholders 495

- Identification of stakeholders 497
- Clients and users 499
- Colleagues 503
- Community 505
- Owner 508
- State 511
- People of Grupo EPM 514
- Investors 519
- Suppliers and contractors 523
- Partners 526
- Participation of stakeholders 528

‹ Back to content

Sustainability Report 2023

Identification of stakeholders

Grupo·epm

Identification of stakeholders

*Three criteria are used **to identify and prioritize stakeholders** in Grupo EPM:*

Content GRI 3-1

- *The legitimacy of the stakeholder is assessed within the desirable, proper or appropriate actions of the system of rules, values, beliefs and definitions of society. In operational terms, the level of legitimacy is assessed on the basis of the existence of rules, contracts, covenants, and agreements, in relation to the issues concerning the organization.*
- *Power is evaluated in terms of coercive power (that of force or weapons), utilitarian power (direct or indirect economic power over the Organization. Indirect is, for example, the power of information and knowledge) and symbolic power (that of relationships, political support and recognition) (that of relationships, political support and social and cultural recognition).*
- *The urgency or dependency is assessed in terms of the criticality of the urgency (magnitude of the dependency or the demand for a response it has on the organization), and the required speed of response to such urgency.*

For Grupo EPM, the stakeholders identified on the basis of these criteria are as follows:

Content GRI 2-29

- *Clients and users*
- *Colleagues*
- *Community*
- *Owner*
- *State*
- *People of Grupo EPM*
- *Investors*
- *Suppliers and contractors*
- *Partners / Shareholders*

Stakeholders are groups of people or entities that impact or are impacted to a high degree by Grupo EPM and have relatively stable and common interests with respect to it.

In more technical terms, they are social groups with high legitimacy, power and urgency, which have certain homogeneity and stability among their interests with respect to Grupo EPM.

The priority issues for the sustainability of Grupo EPM and its stakeholders are detailed in Material issues.

Interaction with stakeholders is a fundamental part for Grupo EPM, given that by providing different spaces for dialogue and participation mechanisms, it allows all companies to identify relevant voices and signals to formulate and implement actions to meet the needs, expectations and demands of the environment and thus continue strengthening relationships of trust and transparency.

Back to content

Sustainability Report

2023

Clients and users

Grupo·epm

Clients and users

Composition

Individuals, companies and other organizations with which we have a relationship based on the provision of services.

Content GRI 3-1.

As stated in the Comprehensive Planning and Management Model - MIPG, in relation to citizen service, which purpose is to guarantee citizens effective, timely and quality access to their rights in all relationships with the State, citizens or citizenship will be considered as the stakeholders Clients and users and Community.

Clients and users of Grupo EPM

Utility	2021	2022	2023
Electric power	8,819,791	9,109,302	**9,383,002**
Gas	1,363,562	1,422,118	**1,472,475**
Aqueduct	1,682,719	1,718,149	**1,758,091**
Sewerage	1,637,348	1,675,516	**1,716,640**
Cleaning	917,768	932,683	**965,257**

Source: *Commercial Vice-Presidency.*

Note: This table quantifies the facilities that are served by one or more of the utilities.

The affiliate Ticsa indirectly serves 2,545,200 customers through the operation of 11 wastewater treatment plants.

Clients and users of EPM

Utility	2021	2022	2023
Electric power	2,662,104	2,743,875	**2,835,290**
Gas	1,363,562	1,422,118	**1,472,475**
Aqueduct	1,362,502	1,391,805	**1,424,192**
Sewerage	1,341,700	1,374,055	**1,406,377**
EPM Facilities *	**2,707,561**	**2,790,451**	**2,883,145**

Source: Business Vice-Presidency.

Note: This table quantifies the facilities that are served by any of the utilities.

* Number of facilities that have at least one utility.

Relationship objective

To improve the experience of our customers and users, facilitating their interaction with the companies of Grupo EPM and providing them with solutions to meet their needs and expectations and that demonstrate our permanent concern for their well-being and sustainability.

Leader of the stakeholder

Commercial Vice President

Contents of GRI standards and corporate indicators

Content GRI 3-1	*Process for determining material issues*

‹ Back to content

Sustainability Report 2023

Colleagues

Grupo·epm

Colleagues

Composition

Entities engaged in the provision of services offered by Grupo EPM.

Relationship objective

To jointly manage issues of common concern to strengthen the development and sustainability of the sector and its environment. Content GRI 3-1

Leader of the stakeholder

Communication and Corporate Relations Vice President - External Relations Manager.

Contents of GRI standards and corporate indicators

Content GRI 3-1	*Process for determining material issues*

‹ Back to content

Sustainability Report 2023

Community

Grupo·epm

Community

Composition

Population located in the areas where the companies of Grupo EPM are present with their projects and operations.

Content GRI 3-1

As stated in the Comprehensive Planning and Management Model - MIPG, in relation to citizen service, which purpose is to guarantee citizens effective, timely and quality access to their rights in all relationships with the State, citizens or citizenship will be considered as the stakeholders Customers and users and Community.

This concept applies to all companies in Colombia.

CContent GRI 3-1

Relationship objective

To establish and address multidirectional commitments with the community and its representatives in the territories where the companies of Grupo EPM are present, to bolster the sustainability of the environments and improve the quality of life of communities.

Leader of the stakeholder

Sustainability and Strategy Vice President - Conservation and Development Management.

Value distributed by EPM to the Community

2021	2022	2023
363,044 million (3 %)	358,786 million (2 %)	**373,965 million (2 %)**

The value distributed is taken from the financial statement by stakeholder, which is prepared according to the methodology of the Fourth Financial Statement of the Uruguayan Luis Perera Aldama.

Contents of GRI standards and corporate indicators

Content GRI 3-1	***Process for determining material issues***
Contenido GRI 201-1	***Direct economic value generated and distributed***

‹ Back to content

Sustainability Report 2023

Owner

Grupo·epm

Owner

Composition

Owner, which for EPM is the District of Medellín and for the affiliates is EPM.

Content GRI 3-1

Relationship objective

To promote compliance with the action framework established between EPM and the District of Medellín, which defines the principles and obligations that mark the relationship: owner - company, for an adequate corporate governance and thus contribute to the sustainability of the Company.

Leader of the stakeholder

Secretary General - Corporate Governance Unit.

Value distributed by EPM to the Owner

2021	2022	2023
COP 1,396,953 million (11 %)	COP 1,850,775 million (12 %)	**COP 1,748,005 million (11 %)**

The value distributed is taken from the financial statement by stakeholder, which is prepared according to the methodology of the Fourth Financial Statement of the Uruguayan Luis Perera Aldama.

Contents of GRI standards and corporate indicators

Content GRI 3-1	***Process for determining material issues***
Content GRI 201-1	***Direct economic value generated and distributed***

Back to content

Sustainability Report 2023

State

Grupo·epm

State

Composition

National, departmental and municipal state entities and organizations, as well as state entities of other countries and supranational organizations whose actions could have an impact on matters of interest to Grupo EPM.

Content GRI 3-1

Relationship objective

To establish and maintain a close relationship with the State, in order to align actions and join efforts in pursuit of the economic, environmental and social sustainability of the territories where Grupo EPM has a presence or interest, and the achievement of the strategic objectives of both.

Leader of the stakeholder

Communication and Corporate Relations Vice President / External Relations Management.

Value distributed by EPM to the State

2021	2022	2023
COP 1,510,150 million (12 %)	COP 2,106,174 million (13 %)	**COP 2,129,463 million (13 %)**

The value distributed is taken from the financial statement by stakeholder, which is prepared according to the methodology of the Fourth Financial Statement of the Uruguayan Luis Perera Aldama.

Contents of GRI standards and corporate indicators

Content GRI 3-1	***Process for determining material issues***
Content GRI 201-1	***Direct economic value generated and distributed***

‹ Back to content

Sustainability Report 2023

People of Grupo EPM

Grupo·epm

People of Grupo EPM

Composition

Employees, beneficiaries, retirees, pensioners, apprentices and interns of Grupo EPM.

People of Grupo EPM	2021	2022	2023
Management staff	697	673	**635**
Professional staff	6,580	6,670	**7,081**
Unskilled staff	9,573	9,446	**9,581**
Employees	**16,850**	**16,789**	**17,297**
Retirees [1]	3,591	3,760	**3,645**
Apprentices and interns	834	924	**1,028**
Gente Grupo EPM	**21,275**	**21,473**	**21,970**

Note: [1] There is no data on pensioners from private pension funds or public funds.

People of EPM	2021	2022	2023
Management staff	216	219	**222**
Professional staff	3,482	3,381	**3,360**
Unskilled staff	4,708	4,582	**4,721**
Employees	**8,406**	**8,182**	**8,303**
Beneficiaries	13,960	13,562	**13,899**
Retirees [1]	1,946	1,874	**1,777**
Apprentices and interns	410	432	**468**
People of EPM	**24,722**	**24,050**	**24,447**

Note: [1] There is no data on pensioners from private pension funds or public funds.

Relationship objective

To strengthen the Grupo EPM People - Organization relationship to promote trust and enhance the sustainable human development of stakeholders, and thus achieve the fulfillment of business objectives.

Content GRI 3-1

Leader of the stakeholder

Employee Experience and Organizational Solutions Vice President.

Value distributed to the People of EPM

2021	2022	2023
COP 1,840,770 million (15 %)	COP 2,089,197 million (13 %)	**COP 2,525,188 million (16 %)**

The value distributed is taken from the financial statement by stakeholder, which is prepared according to the methodology of the Fourth Financial Statement of the Uruguayan Luis Perera Aldama.

Contents of GRI standards and corporate indicators

Content GRI 3-1	***Process for determining material issues***
Content GRI 201-1	***Direct economic value generated and distributed***

Back to content

Sustainability Report 2023

Investors

Grupo·epm

Investors

Composition

Determining actors for the provision of long-term financial resources for Grupo EPM, who act directly or indirectly in the capital market, and in a manner completely unrelated to the sharing of ownership in EPM or its affiliates; investors include domestic and international bondholders, long-term financing providers, facilitators and governmental entities.

Relationship objective

To build trust with investors and other players in the domestic and international securities market, through relationships based on sound economic, social and environmental management.

Content GRI 3-1

Leader of the stakeholder

Finance and Investment Vice President - Capital Management Division.

Main achievements in 2023

Goals in 2023	Achievements in 2023	Compliance
Seventeenth version of the annual Grupo EPM Investors meeting.	The seventeenth version of Grupo EPM Investors Meeting was held on May 18, 2023 at the JW Marriott Hotel Bogota, with the attendance of 80 people, including investors and players from the local and international financial sector. The event had a satisfaction level of more than 90% by attendees.	Full
Quarterly consolidated financial results conference call.	During the year, four quarterly financial results conference calls were held, with an average attendance of 60 participants per event, including local and international investors and players in the financial sector. This practice provides transparency and openness in corporate information and management for this stakeholder.	Full
Participation in "non-deal roadshow" events organized by international and national banks, in order to present and update investors on the main topics of the business group of interest to this audience.	In 2023 we participated in 5 events organized by international and domestic banks, of which only 1 was held online. An average of 18 international investor accounts were served per event.	Full
Update to the Investor Portal in Spanish and English.	The version of the Investor Portal was updated in Spanish and English: *https://www.epm.com.co/inversionistas/* *https://www.epm.com.co/investors/*	Full
Compliance with the requirements of the Colombian Stock Exchange included in the IR Recognition.	For the eleventh consecutive year, the Company obtained the IR Recognition awarded by the BVC for the 2023-2024 period.	Full

Challenges for 2024

Challenges
To hold the eighteenth version of the annual Grupo EPM Investors meeting.
To hold four quarterly consolidated financial results conference calls.
To take part in "non-deal roadshow" events organized by both international and domestic banks, in order to present and update Investors on the main topics of the business group of interest to this audience.
Migration and update of the Investors Portal in Spanish and English.
Compliance with the requirements of the Colombian Stock Exchange included in the IR Recognition.

Contents of GRI standards and corporate indicators

Content GRI 3-1	Process for determining material issues

‹ Back to content

Sustainability Report

2023

Suppliers and contractors

Grupo·epm

Suppliers and contractors

Composition

Individuals and legal entities that provide or are able to provide goods or services to any of the companies of Grupo EPM. Labor suppliers, small suppliers of goods and services, knowledge suppliers, strategic suppliers and large suppliers of goods and services.

Content GRI 3-1

Number of suppliers registered in the Suppliers and Contractors information system of EPM.

2021	2022	2023
11,110	12,892	**14,436**

Note: This report includes the suppliers registered in the Ariba system as of December 31 of each year.

Relationship objective

To establish, through the acquisition of goods and services, relationships for building and sharing capabilities for the sustainable development of the environment and the generation of value for each of the parties and society in general.

Leader of the stakeholder

Supply and Shared Services Vice President - Supplier Diversity and Development Unit.

Value distributed to Suppliers

Value distributed by EPM to:	2021	2022	2023
Suppliers of goods and services	COP 1,931,999 million (15 %)	COP 2,500,666 million (16 %)	COP 2,824,411 million (17 %)
Financial providers	COP 1,678,438 million (13 %)	COP 2,400,418 million (15 %)	COP 2,135,292 million (13 %)
Total Suppliers and Contractors	COP 3,610,437 million (29 %)	COP 4,901,084 million (31 %)	COP 4,959,703 million (30 %)

The value distributed is taken from the financial statement by stakeholder, which is prepared according to the methodology of the Fourth Financial Statement of the Uruguayan Luis Perera Aldama.

Contents of GRI standards and corporate indicators

Contenido GRI 3-1	*Process for determining material issues*
Contenido GRI 201-1	*Direct economic value generated and distributed*

‹ Back to content

Sustainability Report 2023

Partners

Grupo·epm

Partners

Composition

Individuals and legal entities that have non-controlling ownership rights in the affiliates that are part of Grupo EPM, both Colombian and international companies.

Partners applies to EPM, while they are called shareholders for the affiliates of Grupo EPM.

Content GRI 3-1

Relationship objective

To ensure respect for shareholder rights and compliance with commitments to facilitate decision-making and build trust, within the framework of corporate governance practices.

Leader of the stakeholder

Secretary General - Corporate Governance Unit.

Contents of GRI standards and corporate indicators

Content GRI 3-1	*Process for determining material issues*

Back to content

Sustainability Report

2023

Participation of stakeholders

Grupo·epm

Participation of stakeholders

The **Stakeholder Relationship Model of Grupo EPM** contains the guidelines for strategic and integral relations in light of ESG issues or relevant material issues in terms of sustainability that impact the organization and its stakeholders and establishes unified criteria for Grupo EPM, from which each company establishes synergies and alliances to solve problems and achieve objectives that the company cannot attain independently and for which it is necessary to interact with its stakeholders.

See | Our Stakeholders

During 2023, the Stakeholder Relationship Model incorporated the strategic indicator "Stakeholder Value Generation Index", which accounts for the management of material issues or ESG issues identified with the direct participation of Stakeholders, so as to generate engagement actions in line with organizational objectives and goals, and for such engagement to incorporate the guidelines associated with Reputation and Communication.

See material issue | Transparency: relationship building for trust and reputation

Relevant topics for stakeholders

Material issues	Clients and users	Community	Proveedores y contratistas	Investors	Partners / Shareholders	People of Grupo EPM	Colleagues	Owner	State
Access and affordability	●	●		●	●			●	●
Quality and safety of products and services	●	●	●	●	●	●		●	●
Corporate governance	●	●	●	●	●	●		●	●
Labor welfare and adaptability	●			●		●			●
Human rights	●	●	●	●		●			●
Transparency	●	●	●	●	●	●	●	●	●
Technology and innovation	●	●	●	●	●	●	●	●	●
Financial strength	●			●				●	●
Climate change	●	●		●			●		●
Water and biodiversity	●	●	●	●			●		●
Renewable energy	●	●	●	●	●	●		●	●

Note: Represents evidence of the interest expressed in the spaces for dialogue and secondary information on the material issues in their relationship with Grupo EPM.

Signals from stakeholders

Issue	Clients and users	Community	Suppliers and contractors	Investors	Partners/ Shareholders	People of Grupo EPM	Colleagues	Owner	State
Strategic alliances with stakeholders (public and private) to manage territorial problems and build economic, social and environmental capacities.	●	●	●		●		●	●	●
Community training to solve problems associated with public utilities and responsible consumption.	●	●	●						●
Design of strategies to generate knowledge for the reading and interpretation of bills and the definition of utility rates.	●	●					●		●
Local and social procurement to promote competitiveness and economic development in the areas of influence of Grupo EPM.		●	●						●

Signals from stakeholders

Issue	Clients and users	Community	Suppliers and contractors	Investors	Partners/ Shareholders	People of Grupo EPM	Colleagues	Owner	State
Drafting of a sector agenda around solutions to complex issues to drive public policy.					●		●	●	●
Incorporation of ESG (Environmental, Social and Governance) resources and knowledge at the highest levels of the Organization to promote sustainable financing and investment, support management transparency and value generation.				●					●
Improved understanding of the higher purpose of Grupo EPM within the framework of the strategy and organizational culture of the companies and its application in the relationships with stakeholders.			●			●			

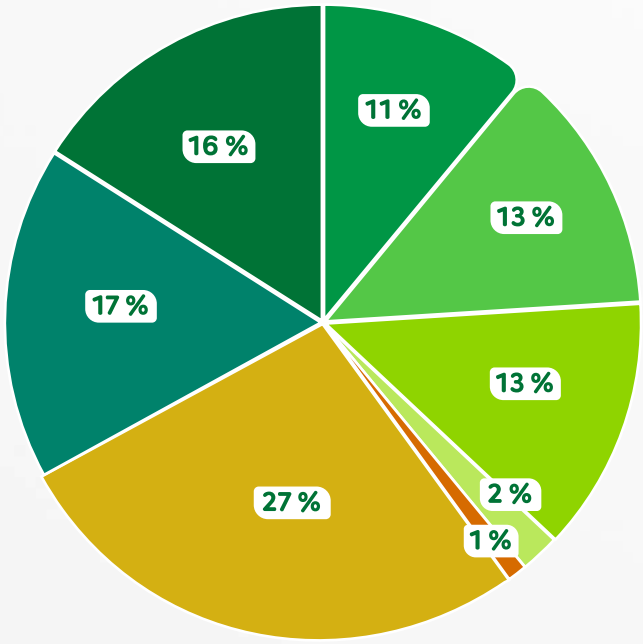
The results of other participation, relationship and accountability spaces for the building and maintenance of trust and reputation can be consulted in Transparency. See material issue | Transparency

Financial statements by stakeholder

Content 2-29, Content 201-1

A quantitative expression of the impact on stakeholders is expressed in the graph of the value generated and distributed based on the methodology of the Fourth Financial Statement of the Uruguayan Luis Perera Aldama.

Financial statement by stakeholder EPM 2023
Value generated and distributed = COP 16,285,107 million



- **Owner** 1,748,005
- **Financial providers** 2,135,292
- **State** 2,129,463
- **Community and environment** 373,965
- **Minority shareholders** 88,232
- **Reinvestment in the company** 4,460,551
- **Suppliers of goods and services** 2,824,411
- **People of Grupo EPM** 2,525,188

Source: *Executive Finance and Investment Vice-Presidency*

Note: The main concepts included in each group are as follows:

Income	Operating income, net exchange difference from own position and financial returns from debtors.
Direct costs	Costs of merchandise sold, commercial operations and direct inputs used for the provision of utilities.
Affiliates and associates	Net result of the equity method, dividend income and other results associated with the acquisition or disposal of equity investments.
Accounting items	Non-effective income and expenses associated with asset impairment and liability provisions.
Reinvestment in the company	Depreciation, maintenance, repairs, quality control costs, undistributed surpluses.
Owner	Ordinary and extraordinary transfers, actually paid.
Financial providers	Net result of income and expenses from interest, commissions, other income and exchange difference with financial entities.
People of Grupo EPM	Costs and expenses associated with personnel and actuarial calculation.
Suppliers of goods and services	Costs and expenses associated with the procurement of goods and services not directly related to other stakeholders.
State	National and territorial taxes, rates and contributions.
Community and environment	Law 56 of 1981 - Regulations on public works, Law 99 of 1993 - General Environmental Law of Colombia, financial support funds for the energization of non-interconnected areas and interconnected rural areas - FAZNI and FAER, environmental taxes and contributions to Fundación Grupo EPM.
Minority shareholders	Effective payment of dividends to shareholders and partners of the Group in companies directly and indirectly controlled by EPM.

Financial statement by stakeholder Grupo EPM 2021 - 2023 (COP million)

	2021	2022	2023
Total Value Generated (TVG)	**12,567,950**	**15,780,427**	**16,285,107**
Operational Value Generated (VOG)	13,797,453	17,699,582	19,228,939
Income	25,760,581	32,688,929	37,300,466
Direct costs	-11,963,128	-14,989,347	-18,071,527
Added Value Generated (VAG)	-1,229,503	-1,919,155	-2,943,832
Affiliates and associates	-387,708	-440,167	-702,110
Accounting items	-841,795	-1,478,988	-2,241,722
Total Added Value Distributed (VAD)	**12,567,950**	**15,780,427**	**16,285,107**
Reinvestment in the company	3,793,893	4,308,805	4,460,551
Suppliers of goods and services	1,396,953	1,850,775	1,748,005
People of Grupo EPM	1,931,999	2,500,666	2,824,411
Financial providers	1,840,770	2,089,197	2,525,188
State	1,678,438	2,400,418	2,135,292
Owner	1,510,150	2,106,174	2,129,463
Community and environment	363,044	358,786	373,965
Minority shareholders	52,703	165,606	88,232

Source: *Executive Finance and Investment Vice-Presidency*

Financial statement by stakeholder and business segment Grupo EPM 2023 (COP millions)

	Grupo EPM	Electric power and gas	Water and Solid Waste	Other segments	Inter-segments eliminations
Total Value Generated (TVG)	**16,285,107**	**13,317,151**	**3,569,894**	**-167,422**	**-434,516**
Operational Value Generated (VOG)	19,228,939	15,671,053	3,715,964	275,102	-433,180
Income	37,300,466	33,540,200	3,991,710	284,692	-516,136
Direct costs	-18,071,527	-17,869,147	-275,746	-9,590	82,956
Added Value Generated (VAG)	-2,943,832	-2,353,902	-146,070	-442,524	-1,336
Affiliates and associates	-702,110	-305,200	-3,200	-392,374	-1,336
Accounting items	-2,241,722	-2,048,702	-142,870	-50,150	0
Total Added Value Distributed (VAD)	**16,285,107**	**13,317,151**	**3,569,894**	**-167,422**	**-434,516**
Reinvestment in the company	4,460,551	4,322,619	1,120,828	-946,188	-36,708
Suppliers of goods and services	2,824,411	1,816,345	1,026,240	158,278	-176,452
People of Grupo EPM	2,525,188	1,722,526	596,240	209,924	-3,502
Financial providers	1,748,005	1,391,661	91,350	264,996	-2
State	2,135,292	1,491,682	536,340	324,270	-217,000
Owner	2,129,463	2,141,561	167,372	-178,720	-750
Community and environment	373,965	342,527	31,522	18	-102
Minority shareholders	88,232	88,230	2	0	0

Source: *Executive Finance and Investment Vice-Presidency*

Financial statement by stakeholder and business segment Grupo EPM 2023 (COP millions)

	Grupo EPM	Colombia	Chile	El Salvador	Guatemala	Panama	Mexico	Inter-country eliminations
Total Value Generated (TVG)	**16,285,107**	**12,827,775**	**886,472**	**421,486**	**1,032,308**	**741,064**	**444,664**	**-68,662**
Operational Value Generated (VOG)	19,228,939	15,477,027	949,480	432,942	1,127,826	835,452	474,874	-68,662
Income	37,300,466	27,021,452	1,107,360	1,508,990	4,095,794	3,152,556	482,976	-68,662
Direct costs	-18,071,527	-11,544,425	-157,880	-1,076,048	-2,967,968	-2,317,104	-8,102	0
Added Value Generated (VAG)	-2,943,832	-2,649,252	-63,008	-11,456	-95,518	-94,388	-30,210	0
Affiliates and associates	-702,110	-527,194	-20	-10,444	-86,936	-71,860	-5,656	0
Accounting items	-2,241,722	-2,122,058	-62,988	-1,012	-8,582	-22,528	-24,554	0
Total Added Value Distributed (VAD)	**16,285,107**	**12,827,775**	**886,472**	**421,486**	**1,032,308**	**741,064**	**444,664**	**-68,662**
Reinvestment in the company	4,460,551	3,040,786	438,716	143,392	484,889	412,962	-58,542	-1,652
Suppliers of goods and services	1,748,005	1,748,005	0	0	0	0	0	0
People of Grupo EPM	2,824,411	2,014,465	206,592	58,334	159,586	41,604	348,126	-4,296
Financial providers	2,525,188	2,008,032	109,508	88,862	126,770	97,328	94,688	0
State	2,135,292	1,750,518	196,054	20,400	84,414	102,016	44,604	-62,714
Owner	2,129,463	1,861,563	-64,532	101,466	129,616	85,562	15,788	0
Community and environment	373,965	371,497	134	0	762	1,572	0	0
Minority shareholders	88,232	32,909	0	9,032	46,271	20	0	0

‹ Back to content

Sustainability Report

2023

Precautionary principle

Grupo·epm

Table of contents

p.

General information

Precautionary principle 537

Precautionary principle

According to the precautionary approach[1], "where there are threats of serious our irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

The business purpose of Grupo EPM, "Contributing to the harmony of life for a better world" implies a systemic perspective that connects its business activities with the challenges that humanity faces, including its interest groups, future generations and all the aspects of life.

See | Our sustainability model

Being coherent with this higher purpose, the precautionary approach implies that the companies of Grupo EPM are aware of the impacts and risks that they can generate.

See | Sustainable management – Grupo EPM material topics

Content GRI 2-23

[1] *Río de Janeiro Declaration, United Nations Conference on Environment and Development, 1992.*

The cautious attitude of Grupo EPM is embedded in its strategic direction, guided by the Sustainability Model which recognizes that in the nature-society-economy relationship, only by respecting social and environmental limits, is it possible to generate sustainable and inclusive economic value.

‹ Back to content

Sustainability Report 2023

Material issues

Grupo·epm

Back to content

Sustainability Report

2023

Access and purchasability

Grupo·epm

Table of contents

Material issues

p.

Access and purchasability 541

- Universalization of the service 551
- Account financing and overdue customers 562
- Enabling housing for utilities and rural electrification 567
- Affordability solutions 573
- Community meters 577
- Population without utilities 581

Access and purchasability

It implies the development of conventional and non-conventional solutions in accordance with the demographic dynamics and the particularities of the territories.

***Purchasability** addresses the options available to customers and users, considering their needs and preferences in relation to their ability to pay.*

Approaches

Service coverage: includes the provision of service in urban and more remote rural areas, as part of the overall target of universalization of services and through solutions that promote the sustainable development of the territories, such as, for example, the use of non-conventional renewable energies.

Generation of service solutions: includes the development of non-conventional solutions that consider alternative sources of energy and technologies for the provision of services to meet the needs and expectations of customers and users, including people in vulnerable conditions, the population without service due to legal or technical limitations, and those customers and users for whom conscious consumption is important.

The **alignment of the EPM Group's companies with the 2030 Agenda and specifically with the Sustainable Development Goals** is a commitment to contribute, from its business activities, to the achievement of the global challenges that arise at the local level in the territories where the Organization has a presence, and is in tune with national, regional and municipal public agendas.

Each initiative, program or project focused on providing access and affordability is the result of the analysis of business plans with a vision of sustainability for the EPM Group and its stakeholders.

Main achievements 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Population without service	Connect 2,100 homes to the water supply.	EPM	2,012 customers were connected	Partial
	Connect 3,130 homes to sewer service.		2,847 clients were connected	Not met
	Connect 1,500 homes to energy service.		6,342 customers were connected	Total
Universalization and expansion of the service	Achieve an indicator of universal water service in the subsidiaries of the EPM Group in Colombia = 97.61 %.	Grupo EPM	An indicator of 97.73 % was obtained	Total
	Achieve an indicator of universal energy service in the subsidiaries of the EPM Group in Colombia = 97.03 %.		An indicator of 97.29 % was obtained	Total
	Achieve a universal sewerage service indicator in the subsidiaries of the EPM Group in Colombia = 94.69 %.		An indicator of 94.76 % was obtained	Total
	Achieve an indicator of universal water supply service = 98.14 %.	EPM	An indicator of 98.13 % was obtained	Partial
	Achieve universal sewerage service indicator = 96.29 %.		An indicator of 96.27 % was obtained	Partial
	Achieve universal energy service indicator = 97.29 %.		An indicator of 97.2% was obtained.	Partial
	Achieve a gas service universalization indicator = 86.77 %.		Se obtuvo un indicador de 86.6 %	Partial

Main achievements 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Universalization and expansion of the service	Achieve an indicator of universal water supply service = 100 %.	Aguas del Oriente	An indicator of 102.63 % was obtained	Total
	Achieve a sewerage service universalization indicator = 100 %.		An indicator of 102.38 % was obtained	Total
	Achieve an indicator of universal water supply service = 88.25%.	Aguas de Malambo	An indicator of 91.98 % was obtained	Total
	Achieve a sewerage service universalization indicator = 76.98 %.		An indicator of 78.82 % was obtained	Total
	Achieve an indicator of universal water supply service = 92.98 %.	Aguas Regionales	An indicator of 93.6 % was obtained	Total
	Achieve a sewerage service universalization indicator = 78.78 %.		An indicator of 78.59 % was obtained	Partial
	Achieve universal energy service indicator = 94.28 %.	CENS	An indicator of 95.34 % was obtained	Total
	Achieve a universal energy service indicator = 99.27 %.	CHEC	An indicator of 99.5% was obtained	Total
	Achieve an energy service universalization indicator = 98.98 %.	EDEQ	An indicator of 99.05 % was obtained	Total
	Achieve universal energy service indicator = 96.83 %.	ESSA	An indicator of 97.18 % was obtained	Total
	Achieve an indicator of universalization of the solid waste management service 99.34 %	Emvarias	An indicator of 99.33 % was obtained	Partial

Main achievements 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Buyability solutions	Connect 1,500 customers to the Agua Prepago program.	EPM	1,723 clients were connected	Total
	Connect 14,000 customers to the Energía Prepago program.		13,597 customers were connected	Partial
	Connect 3,900 customers to the Energía Prepago program.	ESSA	7,279 clients were connected	Total
	Connect 3,000 customers to the Paga a tu Medida program.		3,022 customers were connected	Total
	Connect 3,120 customers to the Energía Prepago program.	CENS	4,705 customers were connected	Total
	Connect 2,009 customers to the Pay as you Go program.		2,038 clients were connected	Total

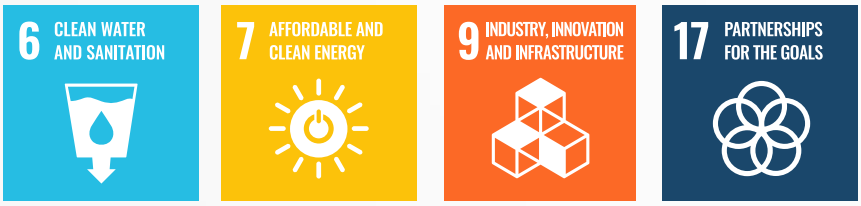
Challenges 2024

Program, project, initiative or action	Challenges	Company	Business	Geography
Population without utilities	Connect 2,860 homes to the aqueduct service.	EPM	Water and Sanitation	Colombia - Antioquia
	Connect 3,460 homes to sewer service.			
	Connect 1,500 homes to energy service.		Energy - Transmission and Distribution (T&D)	
Universalization and expansion of the service	Achieve an indicator of universalization of the water supply service in the subsidiaries of the EPM Group in Colombia = 97.66 %	Grupo EPM	Water and Sanitation	Colombia
	Achieve an indicator of universalization of the wastewater management service in the subsidiaries of the EPM Group in Colombia = 94.84 %.			
	Achieve an indicator of universal energy service in the subsidiaries of the EPM Group in Colombia. = 97.27 %		Energy - T&D	
	Achieve an indicator of universal water supply service = 98.19%.	EPM	Agua y Saneamiento	Colombia - Antioquia
	Achieve universal sewerage service indicator = 96.38 %.			
	Achieve universal energy service indicator = 97.28 %.		Energy - T&D	
	Achieve an indicator of universalization of gas service = 87.19 %.		Energy - Gas	
	Achieve an indicator of universal water supply service = 100 %.	Aguas del Oriente	Water and Sanitation	Colombia - Antioquia
	Achieve a sewerage service universalization indicator = 100 %.			

Challenges 2024

Program, project, initiative or action	Challenges	Company	Business	Geography
Universalization and expansion of the service	Achieve a universal water service indicator = 87.97 %.	Aguas de Malambo	Water and Sanitation	Colombia - Malambo
	Achieve a sewerage service universalization indicator = 78.53 %.			
	Achieve an indicator of universal water supply service = 93.2 %.	Aguas Regionales	Water and Sanitation	Colombia - Antioquia
	Achieve a sewerage service universalization indicator = 79.85 %.			
	Achieve an indicator of universal solid waste service = 99.35 %.	Emvarias	Solid Waste Management	Colombia - Antioquia
	Achieve an energy service universalization indicator = 95.04 %.	CENS	Energy - T&D	Colombia - Norte de Santander
	Achieve universal energy service indicator = 97.12 %.	ESSA	Energy - T&D	Colombia - Santander
	Achieve an energy service universalization indicator = 98.99 %.	EDEQ	Energy - T&D	Colombia - Quindío
	Achieve a universal energy service indicator = 99.27 %	CHEC	Energy - T&D	Colombia - Caldas
Buyability solutions	Link 1,000 customers to the Agua Prepago program.	EPM	Water and Sanitation	Colombia - Antioquia
	Link 14,000 customers to the Energía Prepago program.		Energy - T&D	Colombia - Antioquia
	Link 4,332 customers to the Energía Prepago program.	CENS	Energy - T&D	Colombia - Norte de Santander
	Link 2,235 clients to the Paga a tu Medida program.			
	Link 3,800 customers to the Energía Prepago program.	ESSA		Colombia - Santander
	Vincular 4,000 clientes al programa Paga a tu Medida.			

Sustainable Development Goals



Associated stakeholders

- *Customers and users*
- *Community*
- *Owner*
- *Government*
- *Investors*
- *Partners*

Contents of GRI standards and corporate indicators

Content GRI 3-3	*Materials Management*
Content GRI 203-2	*Significant indirect economic impacts*
EU 26	*Percentage of population not served in areas with distribution licenses*
EPM-12	*Solutions for unserved homes*
EPM-17	*Universalization of service*

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Elektra Noreste - ENSA
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Risaralda
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - El Caribe

- Chile
- El Salvador
- Guatemala
- México
- Panamá

Business

- Water
- Sanitation
- Waste
- Electricity
- Gas

‹ Back to content

Sustainability Report

2023

Universalization of the service

Grupo·epm

Universalization of the service

*The social purpose of the EPM Group is the **universalization of its services in the territories where it is present**, with a joint and coordinated work that considers variables such as the connection of new customers and populations that are without service because they are located in places with technical or legal limitations for the provision of services.*

Management in 2023

The companies of the EPM Group in Colombia achieved important percentages in the universalization of all domiciliary public utilities, as follows: water supply 97.55 %, sewerage 94.55 %, energy 97.29 % and gas in EPM 86.60 %.

The **universalization of service** has been leveraged by investments in infrastructure, the implementation of programs and projects such as Conexiones por la Vida, Habilitación Viviendas, Agua Prepago and Cierre de Brecha (sewerage only), among others.

At the end of 2023, **EPM** connected 33,758 new customers to the water supply service and 34,172 to the sewerage service, both with an increase of 8 % and 4 %, respectively. There was an expected increase mainly due to the elimination of the cadastral identification card requirement for connection requests, which meant a greater number of connections with respect to the previous year.

At the end of the year, a total of 1,424,192 water supply customers and 1,406,377 sewerage customers were reached, representing 98.13 % and 96.27 % universalization of each service.

For the **Colombian water companies,** the universalization of water service reached 97.55% and 94.55% for sewerage, with 1,758,061 and 1,715,875 customers, respectively (including Adasa).

In **Aguas Regionales,** the feasibility of the "Intra-domiciliary connection of water and sewage" project in the district of Turbo, where 418 homes benefited through the construction of up to five sanitary devices and the safe connection to a sewage network, was highlighted by the Ministry of Housing, City and Territory. In addition, the execution of the "Closing the Gap" (Cierre de Brecha) program, which connects users who have the aqueduct service but not the sewerage service.

In **Aguas de Malambo**, in order to improve service provision, resources were managed through contributions under conditions between the national and local governments, with which investment projects such as the expansion of storage at the El Tesoro plant and the renovation of networks in the center of the municipality were carried out.

In energy, EPM reached a total of 2,835,290 customers, thanks to the connection of 108,407 new customers during the year, benefiting approximately 336,063 people. It is noteworthy that 29 % of these connections were made in rural areas, through the different modalities of legalization of installations. Universalization is at 97.20%.

As part of the coverage expansion plan (PECOR), 666 homes were connected, 39% of them in the Urabá subregion and 19% in the Northern subregion.

In subsidiaries such as **ESSA** there was an increase in the percentage of urban coverage due to the normalization of settlements, from 6,074 in 2022 to 2,941 in 2023. The rural coverage goal in Santander was 96.35 %; however, 96.24 % coverage was achieved due to the identification of 1,347 new homes without service, which represented an increase of 12.75 % with respect to 2022.

CHEC: in terms of access and affordability, contributed to the universalization of energy service by reaching a total coverage rate (urban and rural) of 100% and a universalization rate of 99.5%, exceeding the target set for 2023 (99.27%) by 100.23%.

EDEQ: as of the second half of the year 2023, the result of this indicator was99.05 %, which is in the compliance zone in relation to the established target of 98.98 % and with an execution of 100 %. For the second half of the year the results of the indicator show an over-execution in relation to the established goal, which is because during 2023 aportfolio recovery was reflected, which contributed to a decrease in the number of disconnected users, directly influencing the increase of the indicator.

It is important to note that EDEQ is developing a ZNI project (non-interconnected zones), with which it intends to connect existing homes without service in the department of Quindío, which also influences the increase in the indicator. To maintain these results, EDEQ is implementing, in addition to the ZNI project, other collection strategies other than disconnection, which allow keeping users connected, including visits, payment agreements, calls and text messages.

In gas, EPM added 49,890 new customers, for a total of 1,472,475.

The annual compliance with the universalization goal was 99.8 %. Despite the market situation, the economic slowdown and adverse macroeconomic factors (high inflation and high interest rates) that hindered commercial management, technical and commercial actions such as channel reconfiguration and better coordination with contractors were implemented to meet the established goals.

By the end of 2023, universalization of gas service was achieved by the end of 2023. 86.6 %. Compared to the previous year, there was a decrease mainly due to the purging and updating of facilities in the database of the universe of viable facilities.

Universalization of the water supply service - EPM Group

Companies	2021	2022	2023
EPM	98.05 %	98.09 %	**98.13 %**
Aguas del Oriente	100 %	100 %	**100 %**
Aguas Regionales	93.05 %	91.13 %	**91.36 %**
Aguas de Malambo	93.79 %	91.27 %	**91.98 %**
Adasa	100 %	100 %	**100 %**
EPM Group	97.63 %	97.48 %	97.55 %

Source: *Water and Sanitation Vice-Presidency.*

Note: Adasa's percentage corresponds to its coverage.

Universalization of sewerage service - EPM Group

Companies	2021	2022	2023
EPM	96.11 %	96.19 %	**96.27 %**
Aguas del Oriente	100.00 %	100.00 %	**100.00 %**
Aguas Regionales	76.08 %	75.40 %	**76.22 %**
Aguas de Malambo	81.29 %	78.24 %	**78.82 %**
Adasa	99.80 %	99.80 %	**99.80 %**
EPM Group	94.45 %	94.41 %	94.55 %

Source: *Water and Sanitation Vice-Presidency.*

Note: Adasa's percentage corresponds to its coverage.

Universalization of energy service - EPM Group

Companies	2021	2022	2023
EPM	97.35 %	97.67 %	**97.20 %**
CHEC	99.44 %	99.49 %	**99.50 %**
ESSA	97.00 %	97.20 %	**97.18 %**
CENS	93.95 %	94.46 %	**95.34 %**
EDEQ	99.18 %	99.11 %	**99.05 %**
Afinia	96.96 %	99.90 %	**99.73 %**
Delsur	95 %	95 %	**95 %**
EPM Guatemala	98.78 %	98.84 %	**98.86 %**
ENSA	87.70 %	88.10 %	**88.60 %**
Grupo EPM	**97.17 %**	**97.45 %**	**97.29 %**

Source: *Transmission and Distribution Vice-Presidency.*

Note: For the subsidiaries Afinia, Delsur, EPM Guatemala and ENSA the percentage corresponds to their coverage.

Universalization of energy service - EPM Group

Companies	2021	2022	2023
EPM	85.94 %	87.35 %	**86.60 %**

Source: *Gas Vice-Presidency.*

Water mains - Primary distribution - Cumulative (km)

Companies	2021	2022	2023
EPM	309	334	**343**
Aguas del Oriente	0	1	**1**
Aguas Regionales	41	75	**130***
Aguas de Malambo	20	20	**20**
Adasa	169	169	**169**
Total EPM Group	**539**	**598**	**663**

Source: *Water and Sanitation Vice-Presidency.*

Note: Figures expressed in kilometers.
* The increase in Regional Waters corresponds to the inclusion of adduction and conduction networks that were not previously reported.

Water supply networks - Secondary distribution - Cumulative (km)

Companies	2021	2022	2023
EPM	4,009	4,036	**4,072**
Aguas del Oriente	31	31	**31**
Aguas Regionales	746	769	**785**
Aguas de Malambo	145	145	**145**
Adasa	1,131	1,133	**1,134**
Total EPM Group	**6,062**	**6,114**	**6,167**

Source: *Water and Sanitation Vice-Presidency.*

Note: Figures expressed in kilometers.

Sewerage networks - Transport - Cumulative (km)

Companies	2021	2022	2023
EPM	416	421	**429**
Aguas del Oriente	2	2	**2**
Aguas Regionales	86	87	**89**
Aguas de Malambo	27	27	**27**
Aguas Nacionales	14	14	**14**
Adasa	186	186	**187**
Total EPM Group	**730**	**737**	**748**

Source: *Water and Sanitation Vice-Presidency.*

Note: Figures are expressed in kilometers.

Sewerage networks - Collection and transport (secondary) - Accumulated (km)

Companies	2021	2022	2023
EPM	4,493	4,478	**4,560**
Aguas del Oriente	25	25	**25**
Aguas Regionales	288	303	**321**
Aguas de Malambo	99	99	**99**
Aguas Nacionales	1	1	**1***
Adasa	903	903	**903**
Total EPM Group	**5,809**	**5,809**	**5,909**

Source: *Water and Sanitation Vice-Presidency.*

Note: Figures are expressed in kilometers.
*Aguas Nacionales does not have secondary networks. Only what is part of the Aguas Claras WWTP.

Energy networks - Primary distribution - Cumulative (km)

Companies	2021	2022	2023
EPM	55,027	55,568	**56,645**
CHEC	10,227	10,270	**10,452**
ESSA	23,116	23,337	**23,547**
CENS	12,845	13,180	**13,770**
EDEQ	2,494	2,525	**2,543**
Afinia	27,476	28,369	**29,270**
Delsur	5,122	5,157	**5,234**
EPM Guatemala	9,148	9,244	**9,312**
ENSA	4,915	5,049	**5,151**
Total EPM Group	**150,371**	**152,699**	**155,924**

Source: *Energy Transmission and Distribution Vice-Presidency.*

Note: Total medium, high and ultra-high voltage networks: rated voltage between 1 kW and 500 kW. Figures expressed in kilometers.

Energy networks - Secondary distribution - Cumulative (km)

Companies	2021	2022	2023
EPM	43,718	45,404	**47,743**
CHEC	13,601	13,797	**13,847**
ESSA	34,930	35,463	**35,789**
CENS	14,235	14,461	**15,328**
EDEQ	2,732	2,734	**2,735**
Afinia	12,473	13,115	**13,905**
Delsur	5,724	5,752	**5,787**
EPM Guatemala	9,146	9,312	**9,483**
ENSA	7,619	7,773	**8,031**
Total EPM Group	**144,178**	**147,811**	**152,648**

Source: *Energy Transmission and Distribution Vice-Presidency.*

Note: Total low voltage networks: rated voltage less than 1 kW. Figures expressed in kilometers.

Gas networks - EPM (km)

Companies	2021	2022	2023
Arteria en acero	88	88	**88**
Redes de polietileno	91	119	**100**
	8,539	8,658	**8,758**

Source: *Gas Vice-Presidency.*

Note: Figures expressed in kilometers.

Contents of GRI standards and corporate indicators

Content GRI 203-2	***Significant indirect economic impacts***
EU 26	***Percentage of population not served in areas with distribution licenses***
EPM-17	***Universalization of service***
EU4	***Length of Transmission and Distribution lines (subway and overhead).***

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas de Malambo
- Central Hidroeléctrica de Caldas - CHEC
- Empresa de Energía del Quindío - EDEQ
- Electrificadora de Santander - ESSA
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Aguas de Antofagasta - Adasa
- Elektra Noreste - ENSA

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Risaralda
- Colombia – Santander
- Colombia - El Caribe
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico

- Chile
- El Salvador
- Guatemala
- México

Business

- Water
- Sanitation
- Electricity
- Gas

Back to content

Sustainability Report

2023

Account financing and overdue customers

Grupo·epm

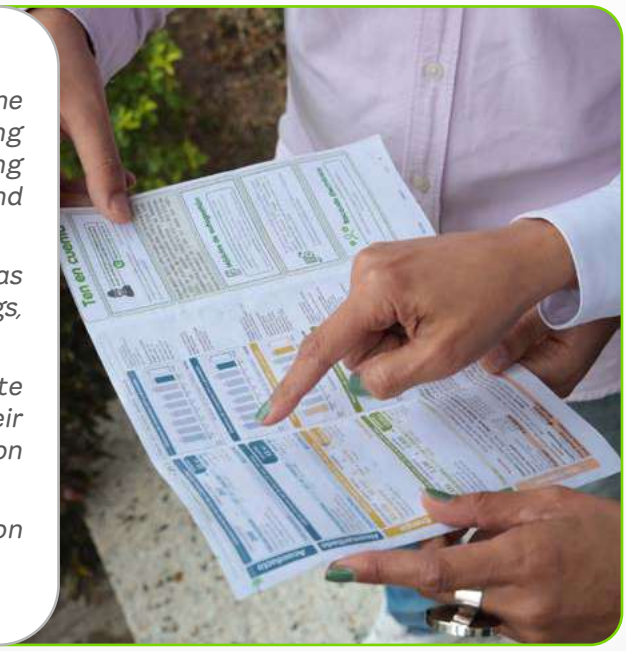
Account financing and overdue customers

Account financing *is one of the payment facilities aimed at normalizing delinquent customers by financing overdue items at low interest rates and extended terms.*

There are other facilities such as deferred terms, credits, restructurings, refinancings and partial payments.

By regulation, customers who are late in paying their bills must have their service suspended until the situation is normalized.

The related data includes information on financing and other facilities.



Management in 2023

In 2023, the Colombian economy showed strong signs of deceleration. The industry, construction and commerce sectors had negative figures and only some, such as public administration, financial activities and artistic/entertainment activities, were above the economy's average. On the other hand, in the last months of the year unemployment remained in single digits and inflation managed to take a downward trend; however, the economic slowdown impacted the payment behavior of customers, affected delinquency indicators and increased the amounts financed in the EPM Group.

Over the course of 2023, the number of delinquent customers of the EPM Group increased by 96,162, for a total of 1,501,987. This increase was mainly driven by the increase in the delinquency levels of Afinia and EPM.

The upward trend is partly explained by the high interest rates and inflationary pressures that affected the Colombian economy, the group's main market. This economic context had a negative impact on people's purchasing power and reduced their ability to pay. Likewise, public order problems in several regions also impacted the execution of suspension and cutoff operations in the field, and combined, generated a challenging environment for debt management and contributed to the increase in the number of delinquent clients.

Financing is a payment alternative for customers to normalize their debt and continue enjoying public services. By 2023, the macroeconomic environment deteriorated customers' payment capacity and increased delinquency. At the same time, inflationary pressures and interest rate increases made it difficult for these payment alternatives to materialize. The increase in the number of delinquent clients should suggest an increase in the amount of financing as a measure to stop the deterioration and achieve the normalization of clients; however, this debt normalization alternative remains relatively stable compared to the previous year.

Some of the **strategies to improve portfolio management** that will be addressed in 2024 at the group level are:

1. Inclusion, in the collection tool, of the components for the calculation of impairment, in order to address collection strategies that positively impact the provision expense.
2. Normalization of customers with zero consumption and overdue accounts receivable.
3. Recovery of customers with no payments for more than one year.
4. Suspension of non-residential customers at the first past due account to minimize run-in.
5. Structuring of a prioritization model for suspension orders that strategically aims at meeting the indicators of the process.
6. Periodic monitoring centralized in EPM as the group's parent company.

Account financing and delinquency EPM Group

Concept		2021	2022	2023
Non-performing services	Residential	1,277,981	1,307,958	**1,409,688**
	Non-residential	95,762	97,867	**92,299**
Total, nonperforming services		1,373,743	1,405,825	**1,501,987**
Financed customers		1,810,697	711,097	**706,460**
Amount financed (COP million)		618,711	448,626	**456,990**

Source: *Commercial Vice-Presidency.*

Delinquency - Water and sewerage

Companies	2021	2022	2023
EPM	1.98 %	1.96 %	**2.19 %**
Aguas del Oriente	1.22 %	1.33 %	**1.54 %**
Aguas Regionales	8.65 %	9.22 %	**10.17 %**
Aguas de Malambo	49.35 %	46.76 %	**48.20 %**
Adasa	7.27 %	8.08 %	**10.55 %**

Source: *Commercial Vice-Presidency.*

Delinquency - Energy

Companies	2021	2022	2023
EPM	2.45 %	2.89 %	**3.28 %**
CHEC	1.51 %	1.65 %	**1.80 %**
ESSA	4.52 %	4.41 %	**4.67 %**
CENS	7.36 %	7.01 %	**6.82 %**
EDEQ	1.24 %	1.34 %	**1.53 %**
Afinia	57.69 %	57.50 %	**59.57 %**
Delsur	1.90 %	1.00 %	**0.95 %**
EPM Guatemala	1.17 %	0.83 %	**1.16 %**
ENSA	21.33 %	35.28 %	**32.74 %**

Source: *Commercial Vice-Presidency.*

Delinquency - Gas

Companies	2021	2022	2023
EPM	1.71 %	1.93 %	**2.25 %**

Source: *Commercial Vice-Presidency.*

Contents of GRI standards and corporate indicators

Content GRI 203-2 ***Significant indirect economic impacts***

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Aguas Regionales EPM*
- *Aguas del Oriente*
- *Aguas de Malambo*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Electrificadora de Santander - ESSA*
- *Empresa de Energía del Quindío - EDEQ*
- *Centrales Eléctricas del Norte de Santander - CENS*
- *Afinia*
- *Distribuidora de Electricidad del Sur - Delsur*
- *EPM Guatemala*
- *Elektra Noreste - ENSA*
- *Aguas de Antofagasta - Adasa*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Quindío*
- *Colombia – Risaralda*
- *Colombia – Santander*
- *Colombia - Norte de Santander*
- *Colombia - Malambo, Atlántico*
- *Colombia - El Caribe*

- *Chile*
- *El Salvador*
- *Guatemala*
- *México*
- *Panamá*

Business

- *Water*
- *Sanitation*
- *Electricity*
- *Gas*

‹ Back to content

Sustainability Report

2023

Enabling housing for utilities and rural electrification

Grupo·epm

Enabling housing for utilities and rural electrification

The EPM Group's Enabling housing for utilities Program *is a social commitment to finance the basic infrastructure costs of water, sewage, energy and gas services for the most vulnerable households, with the purpose of improving their living conditions.*

It began in the 1960s and is one of the social responsibility programs credited with the high utility coverage rates in the Aburrá Valley. In Colombia, the energy subsidiaries also have this program.

The Rural Electrification program is developed in all Colombian companies of the EPM Group to expand the coverage of the energy service to rural areas. Investments are made with own resources and with the participation of public and private institutions and the Financial Support Fund for the Energization of Interconnected Rural Areas (FAER).

Management in 2023

In 2023, the EPM Group connected 172,476 homes to water, sewage, energy, and gas services, changing the lives of 534,676 people.

In **rural electrification,** it connected 4,374 homes and benefited 13,559 people, with an investment of COP 44,236 million.

In 2023, 28,456 connections to water and sewage services were madethrough the Conexiones por la Vida, Habilitación Viviendas and work required by customers, 8% more than the previous year, benefiting 88,214 people in the sectors of Llanaditas, Picachito, Blanquizal, Oasis Tropical, Bello Oriente, Belalcázar and La Cruz parte baja, among others.

Nationwide, 94,130 homes were connected to the energy service, benefiting 291,803 people. The subsidiaries Afinia and CENS are worth noting, with 36,866 connections and 114,285 people benefited and 14,641 connections and 45,387 people benefited, respectively, mostly from the city of Cúcuta. The users of the Conexión al Usuario program, as it is known, by CENS Habilitación Viviendas, are connected after fulfilling the requirements and the company finances the basic infrastructure.

On the part of EPM, 36,715 homes were connected, with 113,817 people benefited. More than 40% of the connections were made in rural areas, most of them concentrated in the Urabá region and in the northern and southern metropolitan area.

As for gas service, 49,890 homes were connected, exceeding the target for the year by 4%, equivalent to 4,200 new connections. COP 21,077 million were invested to build 40 km more than planned in the infrastructure plan, which seeks to expand the system and give it stability and continuity in the long term.

In rural electrification, the EPM Group connected 4,374 homes. The subsidiaries CENS with 2,619 connections and ESSA with 1,038, as well as the increase in Delsur, ENSA and CHEC stand out.

Consolidated enabling housing of the Grupo EPM in Colombia: water, sewage, energy and gas

Concept	2021	2022	2023
Connected installations	149,008	198,268	**172,476**
Beneficiaries	461,925	614,631	**534,676**
Investment (COP million)	73,323	160,276	**178,565**

Enabling housing Water and Sanitation EPM

Concept	2021	2022	2023
Connected installations	22,320	26,405	**28,456**
People benefited	69,192	81,855	**88,214**
Investment (COP million)	25,514	23,581	**10,858**

Source: *Water and Sanitation Vice-Presidency.*

Enabling housing for Energy Subsidiaries of the Grupo EPM in Colombia

Concept	2021	2022	2023
Connected installations	74,515	113,330	**94,130**
People benefited	230,997	351,323	**291,803**
Investment (COP million)	36,167	120,856	**146,630**

Source: *Energy Transmission and Distribution Vice-Presidency.*

Note: The companies considered in these concepts are: EPM, CHEC, EDEQ, CENS, ESSA and Afinia.

Enabling housing Energy EPM

Concept	2021	2022	2023
Connected installations	29,766	33,397	**36,715**
Beneficiaries	92,275	103,530	**113,817**
Investment (COP million)	27,385	85,684	**106,769**

Source: *Energy Transmission and Distribution Vice-Presidency*

Enabling housing Gas EPM

Concept	2021	2022	2023
Connected installations	52,173	58,533	**49,890**
People benefited	161,736	181,452	**154,659**
Investment (COP million)	11,642	15,839	**21,077**

Source: *Gas Vice-Presidency*

Rural electrification EPM Group

Concept	2021	2022	2023
Connected installations	7,511	3,676	**4,444**
Beneficiaries	23,284	11,396	**13,776**
Investment (COP million)	31,073	16,435	**44,236**

Source: *Energy Transmission and Distribution Vice-Presidency.*

Contents of GRI standards and corporate indicators

Content GRI 203-2 ***Significant indirect economic impacts***

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Electrificadora de Santander - ESSA*
- *Empresa de Energía del Quindío - EDEQ*
- *Afinia*
- *Centrales Eléctricas del Norte de Santander - CENS*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Quindío*
- *Colombia – Risaralda*
- *Colombia - El Caribe*
- *Colombia – Santander*
- *Colombia - Norte de Santander*

Business

- *Water*
- *Sanitation*
- *Electricity*
- *Gas*

‹ Back to content

Sustainability Report 2023

Affordability solutions

Grupo·epm

Affordability solutions

Prepaid *is a modality for the purchase of public utilities with the purpose of addressing disconnection due to payment difficulties. This offer allows users to control consumption according to their income and use public services more efficiently and consciously.*

The prepaid offer includes the delivery of the meter on loan, installation at no cost to the user and social support, among other facilities, so that customers and users can continue to enjoy the service.

Paga a tu medida, is the solution that allows customers and users to pay their EPM bill in several installments throughout the month, adjusting to the way in which users receive their income and does not require prior affiliation. For the subsidiaries CENS and ESSA, prior affiliation is required.

Management in 2023

Since the offer began, **EPM** has contributed to the improvement of the quality of life of 30,432 customers with **Prepaid Water** service and 325,441 customers with **Prepaid Energy.**

The **EPM Group** reached a total of 413,419 customers linked to Prepaid Energy.

EPM achieved 1,723 connections in Prepaid Water with a compliance rate of 115%. % against the target for the year.

In **Prepaid Energy, EPM** achieved 13,597 connections. The connection of 16% of the installations in Bajo Cauca and 26% of the total installations in the sub-region of Urabá stand out, where Turbo was the municipality with the most connections.

ESSA and CENS linked 7,279 and 4,705 clients, respectively, exceeding the 2022 goals.

ESSA has 56,079 customers and CENS 31,908 since its inception.

CENS - ESSA y EPM stand out, whose work represents 99.6% of the connections made; in addition, EPM and CENS show an increase in the number of installations connected with respect to the previous year.

Prepaid Water EPM

Concept		2021	2022	2023
Connected installations		384	2,399	**1,723**
Beneficiaries		1,190	7,437	**5,341**
Average consumption per installation (m)3	Prepaid	11	7.28	**7**
	Postpaid	11.33	11.07	**10.94**

Source: *Water and Sanitation Vice-Presidency and Commercial Vice-Presidency.*

Prepaid Energy EPM Group

Concept		2021	2022	2023
Connected installations		24,992	29,637	**25,691**
People benefited		77,475	91,875	**79,642**
Investment (COP million)		5,928	16,752	**13,594**
Average consumption per installation (kWh)	Prepaid	338	317	**315**
	Postpaid	477	775	**725**

Source: *Transmission and Distribution Vice-Presidency. Commercial Vice-Presidency.*

Note: The companies considered in these concepts are EPM and the Colombian energy subsidiaries CENS, ESSA and Afinia.

Energy Prepaid EPM

Concept		2021	2022	2023
Connected installations		14,817	13,434	**13,597**
Beneficiaries		45,933	41,645	**42,151**
Average consumption per installation	Prepaid	129	114	**112.7**
	Postpaid	192	192	**193**

Source: *Transmission and Distribution Vice-Presidency. Commercial Vice-Presidency.*

In 2023, 348,514 EPM customers and users adopted **Paga a tu Medida**.

Pay as you wish EPM Group

Concept	2021	2022	2023
Customers who used Paga a tu Medida EPM	N.A.	17,780	**348,514**
Related customers CENS	2,009	1,991	**2,038**
Related customers ESSA	3,139	3,065	**3,022**

Note: EPM data for 2023 corresponds to the number of customers (contracts) that were paid with Paga a tu Medida.

Contents of GRI standards and corporate indicators

Content GRI 203-2 ***Significant indirect economic impacts***

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Centrales Eléctricas del Norte de Santander - CENS*
- *Electrificadora de Santander - ESSA*
- *Afinia*

Geography

- *Colombia – Antioquia*
- *Colombia - Norte de Santander*
- *Colombia – Santander*
- *Colombia - El Caribe*

Business

- *Water*
- *Sanitation*
- *Electricity*

‹ Back to content

Sustainability Report

2023

Community meters

Grupo·epm

Community Meters

Community meters for water supply *is a non-conventional method of service provision for sectors where, due to restrictions to extend networks, it is not possible to do so with individual meters. These collective meters allow service to be extended to homes and receive the average charge for the consumption of the corresponding socioeconomic stratum.*

Management in 2023

EPM connected 3 community water meters, benefiting 3,249 people.

EPM connected 3 community meters in settlement areas not intervened with network works, to improve the quality of life of 3,249 people, count the water delivered and improve the behavior of consumption in sectors where it is not possible to install meters for each house. In addition, 51 meters were repaired.

Interventions were carried out in sectors that were difficult to manage, such as La Paralela in Medellín and Villa Elena and La Camila in the municipality of Bello.

Adasa, water and sanitation subsidiary in Chile, has a plan for primary service provision in informal settlements. This project only contemplated the installation of a general meter; however, due to the conditions of the settlements, meters were installed in each home. In 2023, 2,154 meters were installed, benefiting 13,612 people.

Community water meters EPM Group

Concept	2021	2022	2023
Installed meters	85	30	**2,157**
Homes benefited	8,034	15,614	**5,439**
Beneficiaries	24,905	48,403	**16,861**
Investment (COP million)	3,970	73	**325**

Source: *Water and Sanitation Vice-Presidency.*

Note: These concepts include EPM and Adasa.

community water meters EPM

Concept	2021	2022	2023
Installed meters	4	7	**3**
Homes benefited	2,850	14,414	**1,048**
Beneficiaries	8,835	44,683	**3,249**
Investment (COP million)	3,970	66	**10**

Source: *Water and Sanitation Vice-Presidency.*

Contents of GRI standards and corporate indicators

Content GRI 203-2 *Significant indirect economic impacts*

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Aguas de Antofagasta - Adasa*

Geography

- *Colombia – Antioquia*
- *Chile*

Business

- *Water*
- *Sanitation*

‹ Back to content

Sustainability Report

2023

Population without utilities

Grupo·epm

Population without utilities

Unserved populations are considered to be those settled in places with technical or legal limitations for the provision of residential public utilities, such as those located in high-risk areas or outside the perimeters of land use plans (POT), whose solutions usually exceed the exclusive scope of the service providers and require the intervention of multiple actors.

Management in 2023

Some national companies of the EPM Group contributed to the improvement of the quality of life of 13,971 households by providing access to energy, gas, water and sewage services. In this way, the group contributed to the development of the communities, as well as to the mitigation of environmental, geological and health risks in the intervened areas. It also promoted the care for infrastructure and the legal, safe and efficient use of public utilities in homes, businesses and companies.

The companies that contributed to the fulfillment of this initiative are, in addition to **EPM**, the subsidiaries **CENS and EDEQ**.

EPM contributed with the connection of 11,201 services: 6,342 for energy, 2,012 for water and 2,847 for sewage. Of the energy connections, 2,292 were provided by the subsidiary **CENS** and 478 by **EDEQ**.

Water and sewage connections were achieved through two lines: **community supply and the Housing Renovation program.** Community supply is for areas that are difficult to manage and in agreement with the municipality, the conditions are mitigated to make provisional connections. In the Housing Renovation program, final networks are extended. Both lines seek to reach areas and enable services where previously it had not been possible due to technical conditions, improving the quality of life of households.

From 2020 to 2023, the **Conexiones por la Vida program** has made 15,925 connections, for a compliance of 112% of the total goal of 14,200 homes. The program has connected homes in all the municipalities of Medellín, with greater presence in the following: 1 Popular, 3 Manrique, 4 Aranjuez, 5 Castilla, 6 Doce de Octubre, 7 Robledo, 8 Villa Hermosa, 9 Buenos Aires, 13 San Javier and 16 Belén.

EPM connected 6,342 households to the energy service, with an accumulated compliance of 423 % in relation to the target of 1,500. This over-execution is because several sectors of the department with a significant number of homes were made viable. The homes are located in areas that are difficult to manage and are inhabited by families in conditions of displacement and high economic and social vulnerability.

In these sectors, there is a significant inventory of housing located in areas that are difficult to manage, such as: squatting, high risk, public order problems and illegal mining, among others. In addition, some that had already been intervened, but continue with a vegetative growth, are being attended to. The following sectors were normalized: Araucarias 1 and 2, Mirador de Chagualones, Villalinda, Santo Domingo - Las Flores, Mirador de los Vallados and La Orquídea in the municipality of Bello, and El Ajizal, La Libertad and Los Gómez in the municipality of Itagüí.

In the northeast of Antioquia, the sectors of La Vega and La Indomable were intervened. In Bajo Cauca, the facilities in the La Temperatura sector of the municipality of Zaragoza are being normalized, with social accompaniment. In Urabá, a significant number of homes were also normalized, which contributed significantly to meeting the goal.

Connected Households- EPM

Service	2021	2022	2023
Aqueduct	1,602	1,717	**2,012**
Sewer	2,989	3,807	**2,847**
Electricity	4,211	2,914	**9,112**
Total EPM	**8,802**	**8,438**	**13,971**

Source: *Commercial Vice-Presidency*

During 2022 and 2023 there were no gas connections through the Connections for Life program.

Contents of GRI standards and corporate indicators

EPM – 12 *Solutions for unserved homes.*

EU 26 *Percentage of population not served in areas with distribution licenses*

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*

Geography

- *Colombia – Antioquia*

Business

- *Water*
- *Sanitation*
- *Electricity*

Back to content

Sustainability Report

2023

Water and biodiversity

Grupo·epm

Table of contents

Material issues

p.

Water and biodiversity 585

- Water conservation and biodiversity 593
- Use of water and effluents 619
- Management of impacts related to water and biodiversity 641

Water and biodiversity

Faced with the challenges arising from the interrelationships between water, energy, food, industry and climate with the natural base, joint action is required from the stakeholders of the territory.

The interdependence between water and biodiversity highlights the importance of their integrated management to ensure the necessary ecosystem services for the different water users, including Grupo EPM.

Approaches

Co-responsibility in the care of water and biodiversity: development of own actions and in cooperation with other stakeholders for the care of water and biodiversity prioritizing the hydrographic basins that supply Grupo EPM's systems and reservoirs in consideration of territorial planning, and contributing to the availability in quality and quantity of the water resource.

This is aligned with the Sustainable Development Goals, national water and biodiversity policies, the strategic direction of Grupo EPM and cost-efficiency criteria.

Main achievements 2023

Program, project, initiative/action	Challenges	Company	Achievements	Compliance
Water conservation and biodiversity	Implement initiatives that contribute to the protection of hydrographic basins that supply Grupo EPM's systems and reservoirs. **Target in 2023** **Grupo EPM:** 8,654 hectares.	Grupo EPM	In 2023, 11,992 new hectares for water protection were achieved, exceeding the annual target. EPM contributed 8,491 hectares, CHEC 2,509, Aguas Regionales 661 and 331 in other watersheds under EPM's influence.	**Total**
Water conservation and biodiversity	Implement initiatives that contribute to the protection of hydrographic basins that supply Grupo EPM's systems and reservoirs. **Target in 2023** **EPM:** 6,005 hectares.	EPM	EIn 2023, 8,491 new hectares for water protection were reported, surpassing its annual goal. Achievements were as follows: Through the EPM Forestry Promotion program, 4,891 hectares in active ecological restoration and reforestation in the basins of the upper Porce, Nechí, Negro, Nare and Aburrá rivers and municipalities of influence of the Riogrande II and La Fe reservoirs; restoration through the EPM-Cornare agreement; restoration in the Hidroituango reservoir protection strip. 1,700 hectares for conservation through the acquisition of land in compliance with the 1 % investment in municipalities of influence of EPM's power generation reservoirs in the Riogrande and Porce Alto Nechí basins. 1,900 hectares in forest conservation through the payment for environmental services scheme with the involvement of 75 families in the Negro and Nare river basins, through an agreement with Cornare. The annual goal was exceeded through own actions and with other actors as follows: EPM Forestry Promotion Program, EPM-Cuencaverde, EPM- Corporación Parque Arví, EPM-municipality of Envigado, EPM-Cornare.	**Total**

Main achievements 2023

Program, project, initiative/action	Challenges	Company	Achievements	Compliance
Water conservation and biodiversity	Implement initiatives that contribute to the protection of hydrographic basins that supply Grupo EPM's systems and reservoirs. **Target in 2023** **CHEC**: 2,489 hectares.	CHEC	In 2023, an implementation of 2,508.9 hectares was achieved, of which 1,869 hectares are represented in actions of sustainable practices and uses, 300 through the isolation of natural forest and 339.8 in the conservation of the páramo ecosystem with the purchase of the Azufral property. The actions were executed mainly through the Fundación Ecológica Cafetera FEC, Vivocuenca Water Fund, Pasos Program (Sustainable Landscapes), Pangea Foundation Agreement, agreements with third parties (municipalities, Corpocaldas and individuals) and direct actions of CHEC.	**Total**
Management of impacts related to water and biodiversity	Implement initiatives that contribute to the protection of hydrographic basins that supply Grupo EPM's systems and reservoirs. **Target in 2023** **Aguas Regionales:** 160 hectares	Aguas Regionales	In 2023, 661 new hectares were added for water protection. The achievements were: 582 hectares in forest conservation through payment for environmental services as follows: 482 hectares linking 15 families in the municipalities of Chigorodó, Apartadó, Mutatá and Turbo and 100 hectares linking 147 families of the indigenous reservation Las Playas in the municipality of Apartadó that contribute to the protection of the recharge of the Serranía de Abibe aquifer and the supply basins of the municipal aqueducts operated by Aguas Regionales, through the agreement Corpourabá, EPM and Aguas Regionales. 79 hectares comprising 60 in restoration and 19 in reforestation with voluntary activities carried out jointly with communities, community leaders, community action boards, educational institutions and environmental secretariats in the municipalities of Santa Fe de Antioquia, Apartadó and Turbo, contributing to the protection of tributary water sources of hydrographic basins supplying the aqueducts operated by Aguas Regionales.	**Total**

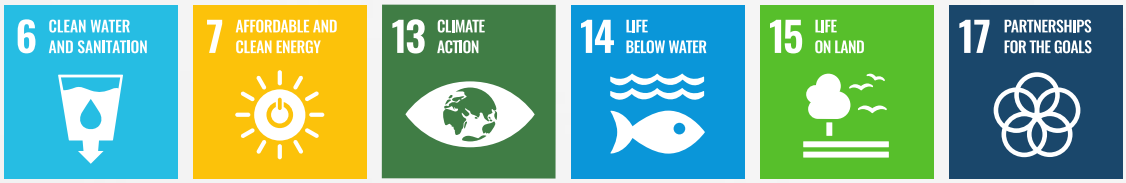
Challenges 2024

Challenges	Company	Business	Geography
Continue with the implementation of initiatives that contribute to the protection of hydrographic basins that supply Grupo EPM's systems and reservoirs. **Target in 2024** (official until March 2024) **Grupo EPM:** 6,395 hectares. **EPM:** 3,676 hectares (3,374 contributed by Generación Energía and 302 by Provisión Aguas). **CHEC:** 2,489 hectares. **Aguas Regionales:** 230 hectares.	EPM CHEC Aguas Regionales	Grupo EPM	Colombia

Grupo EPM has goals and indicators related to water and biodiversity that are defined based on the strategic direction, the Sustainability Policy, the Environmental Policy and the integral management strategy for water resources and biodiversity (EGIRHB) of the Organization, the applicable environmental regulations, territorial studies and analysis, historical performance data, technological and economic possibilities and the local context, among others, and are aligned with global, national and local initiatives.

Targets and indicators related to water and biodiversity are part of organizational plans and are monitored and some are included in the Balanced Scorecard (BSC).

Sustainable Development Goals



Associated stakeholders

- Customers and users
- Colleagues
- Community
- Government
- Grupo EPM People
- Investors
- Suppliers and contractors

Contents of GRI standards and corporate indicators

Content GRI 3-3	Management of material issues
Content GRI 303-1	Interaction with water as a shared resource
Content GRI 303-2	Management of impacts related to water discharge
Content GRI 303-3	Water extraction
Content GRI 303-4	Water discharge
Content GRI 303-5	Water consumption
Content GRI 304-1	Operational sites owned, leased or managed located within or adjacent to protected areas or areas of high biodiversity value outside of protected areas
Content GRI 304-2	Significant impacts of activities, products and services in biodiversity
Content GRI 304-3	Protected or restored habitats
Content GRI 304-4	Species on the IUCN Red List and on national conservation lists whose habitats are in areas affected by the operations.
EU13	Biodiversity comparison between compensated habitats and affected areas
EPM-01	Conservation areas
EPM-10	Water protection

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Aguas de Antofagasta - Adasa
- Aguas Nacionales EPM
- Central Hidroeléctrica de Caldas - CHEC
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Electrificadora de Santander - ESSA
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Elektra Noreste - ENSA
- Hidroecológica del Teribe - HET
- Tecnología Intercontinental -Ticsa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Risaralda
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - The Caribbean

- Chile
- El Salvador
- Guatemala
- Mexico
- Panama

Business

- Water
- Sanitation
- Electricity
- Gas
- Waste

‹ Back to content

Sustainability Report 2023

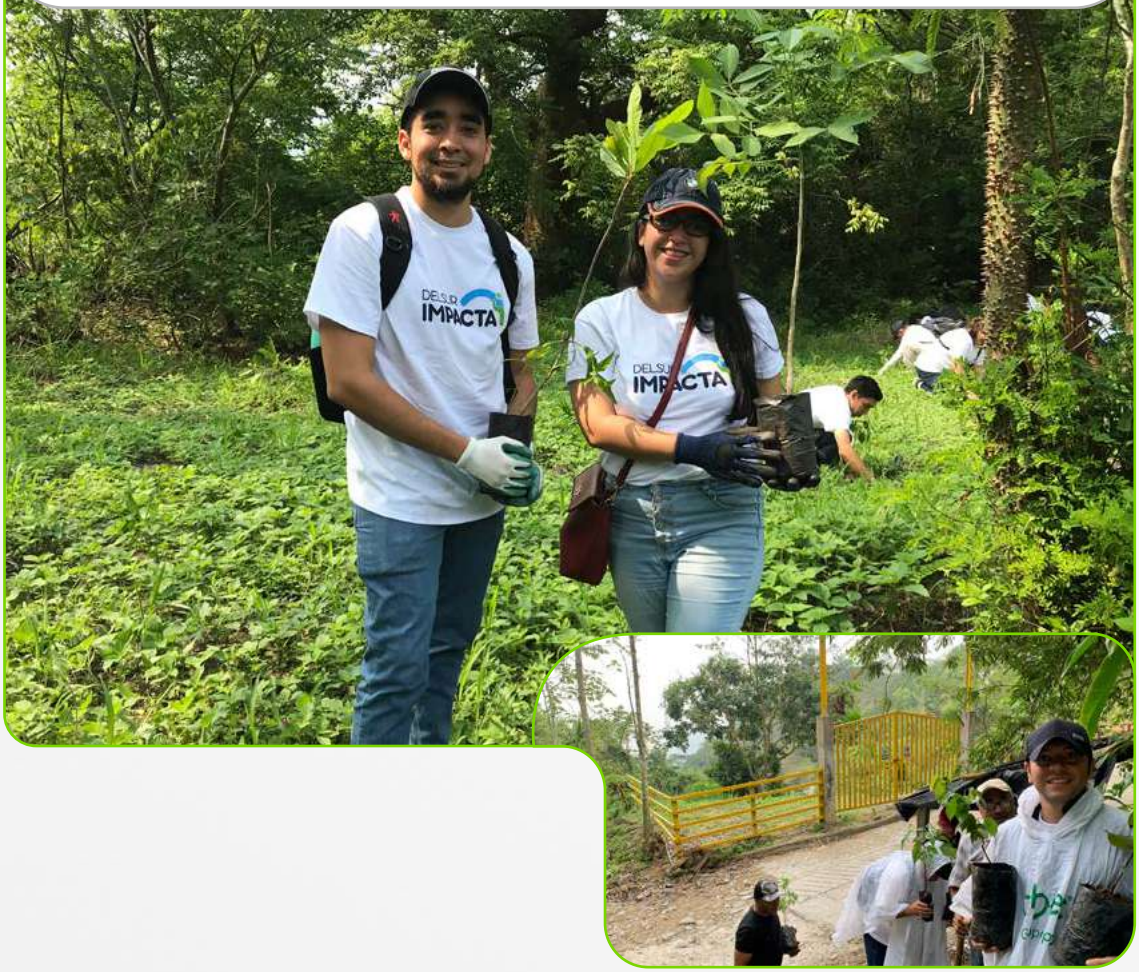
Water conservation and biodiversity

Grupo·epm

Water conservation and biodiversity

*In its commitment **to the comprehensive management of water resources and the conservation of biodiversity**, in 2023 Grupo EPM, as in previous years, continued to develop its own actions and in cooperation with other stakeholders to contribute to water security, caring for the vital water cycle and maintenance of the environmental services necessary for life, human subsistence and economic and social development.*

Grupo EPM contributes to the protection and improvement of the environmental conditions of the hydrographic basins that supply its supply systems and reservoirs and manages the risks associated with the availability and quality of water for its operations and the populations it serves, with initiatives for conservation, restoration, reforestation, sustainable practices and use, and environmental awareness



Management in 2023

As a result of the deployment of its **strategy for the integral management of water resources and biodiversity,** during this year, Grupo EPM:

- Contributed to the protection of 11,992 hectares, of which 8,491 were contributed by EPM, for an accumulated 132,470 since 2016. It thus completes an advance of 96.4 % of the 2025 goal of protecting 137,409 hectares of watersheds that supply their supply systems and reservoirs.
- 86.5 % of its total operational landholdings were conserved in vegetation cover ranging from natural forests (273.24 km^2) to other stages of natural succession and areas under ecological restoration (363.90 km^2). Additionally, 850.64 km^2 of the properties are located within declared protected areas, in their buffer zones or in areas with high biodiversity. This shows the importance of the properties owned by the group in the panorama of water resource and biodiversity protection.
- The new studies and research carried out and the monitoring that continued this year as part of the management of the group's projects, works or activities, led to the recording of 541 species in some category of threat according to IUCN, national lists and Cites, which in turn reveals the sensitivity of the habitats in these areas and the importance of proper management to ensure their protection and conservation. In this sense, the contribution to the conservation of these species gains relevance through the protection of the areas associated with the projects, the implementation of conservation strategies, the management of impacts and the contribution to the knowledge of biodiversity.

Water protection and conservation areas

Grupo EPM contributed to the **protection of water resources** in 11,992 hectares (ha) (119.92 km^2) in hydrographic basins supplying water to the supply systems of EPM, CHEC and Aguas Regionales and advanced up to 96 % of the 2025 goal of protecting 137,409 ha with the development of the following actions:

- **Conservation of natural forests in 582 ha** (5.82 km^2) of strategic ecosystems for the protection of water and biodiversity by means of the payment for environmental services scheme and conservation agreements.
- **Restoration and reforestation of 5,301 ha** (53.01 km^2) through active restoration and reforestation in ecologically important or degraded areas to promote the protection of natural resources.
- **Practices and sustainable use of natural resources on 1,869 ha.** (18.69 km^2) including silvopastoral and agroforestry systems, fences and living barriers, good agro-environmental practices, erosion control and basic rural sanitation systems.
- **Compensation and new protection areas on 1,701 ha** (17.01 km^2) includes acquisition of new protection areas with significance for water and biodiversity conservation and tree planting and maintenance in compliance with mandatory commitments.

The contribution to **water protection and biodiversity** was carried out through our own actions and in alliance with other actors; some of these actions are: EPM Forestry Promotion Program, EPM-Cuencaverde agreements, EPM-Universidad de Antioquia, EPM-Corantioquia, EPM-Corporación Parque Arví, EPM-Cornare, and EPM-municipality of Envigado; CHEC agreements with the Fundación Ecológica Cafetera, the Fundación Pangea, the Fondo de Agua Vivo Cuenca, the Proyecto Paisajes Sostenibles program, and the Mujeres Cafeteras program; Aguas de Envigado agreements with Regional with the Governor's Office of Antioquia and municipalities of Western Antioquia and Aguas Regionales-EPM and Corpourabá.

Thanks to these actions, natural forests were conserved on our own land and vegetation cover was recovered through active and passive ecological restoration, enrichment with native species and establishment of forest plantations; applied research on water and biodiversity, monitoring and recording of biological information were carried out.

Water and biodiversity conservation and protection initiatives

Environmental conservation, protection and care activities are carried out through our own actions and in alliance with environmental authorities, municipalities, other public and private entities and communities to address the co-responsibility in the use, exploitation and care of the natural resources shared in the territories. Some of these are:

- **Payment for environmental services.** In 2023 Grupo EPM continued to develop this voluntary initiative with the contribution to the conservation of 3,433.49 ha and the involvement of 273 families in areas of influence of EPM, CHEC, CENS and ESSA, with an economic incentive for the preservation of natural forests and the conservation of strategic ecosystems such as paramos and wetlands, favoring the maintenance of environmental services and the improvement of the quality of life of families and communities.
- **REDD+EPM Project.** EPM contributed to the reduction of emissions from deforestation by conserving 9,855 hectares of natural forests in protection areas of the Miraflores, Riogrande, Porce II and Porce III reservoirs. In 2023, biodiversity monitoring was consolidated for these 4 zones and the deforestation rate was calculated for the periods 2014-2017-2023, which determined a recovery in the cover from successional progress and increases in protection areas.

- **EPM Forestry Promotion Program.** In 2023, EPM's nurseries delivered 3,562,892 seedlings. In this way, EPM continues with this program uninterrupted since 2000, through which seedlings are donated to people who own land in areas of influence of the reservoirs used for power generation.

- **Management of EPM reservoirs:** continued control of invasive aquatic plants carried out through physical control actions (barrierscontainment), manual and mechanical (backhoe, dump trucks and bulldozer), reported in the last 5 years for the 8 generation reservoirs in operation, which allowed a green indicator (<5ha) in all reservoirs. In total, 490.1 tons in dry weight of aquatic plants and 11,498 tons of waste coming from the tributary basins were managed (extracted and disposed of in areas suitable for this purpose), corresponding to ordinary, special, usable, hazardous and wood waste.

- **Improvement of environmental conditions and monitoring of supplying and receiving basins that are part of EPM's water supply and sewerage system:** as part of the process of identifying and updating environmental aspects and impacts, as well as the environmental risks that may affect water resources and carry out relevant activities directly or with other actors in the management of risks associated with water resources and biodiversity, during 2023 the identification and intervention of critical waste points in the prioritized watersheds was carried out. The main activities were carried out in the La Iguaná, Malpaso, La Seca, Doña María, Santa Elena and La Rosa streams. A total of 10,000 m^2 of green areas and 2,200 m^2 hard areas were cleaned and 474 m^3 of construction and demolition waste, 896 m^3 of bulky waste and 592 m^3 of ordinary waste were managed. In addition, 120 trees were planted.

- **Monitoring of flows and water quality** in the main tributaries of EPM's reservoirs and in the supply sources of the water supply system it operates. In 2023, the implementation of the catchment of La Iguaná stream was completed and progress was made in the implementation of La Valeria and La Reventona streams. The instrumentation activities of the minor water supply sources of the water supply systems in the Aburrá Valley continued, to control the concessioned and environmental flows, as well as the monitoring and analysis of about 60 water quality stations and hydrobiological communities that are part of the monitoring network in the power generation reservoirs. Likewise, studies for the development of modeling techniques in hydrographic basins that allow prioritizing interventions in drinking water supply basins.

- **Wildlife management in the areas of influence of EPM's operations:** two new bridges were installed to avoid being run over on the internal roads of the power generation plants two new canopy bridges and maintenance was performed on road fences between the Porce II and Porce III power plants. In addition, the dog and cat management program continued to control the population increase and wildlife predation. Through the Universidad de Antioquia and within the framework of animal welfare, the company educated communities about adoption and responsible ownership and contributed to the sterilization of 450 animals.

  In order to continue developing actions to protect wildlife, the Energy Transmission and Distribution business installed 24 wildlife protection points in distribution networks, 2,388 conventional transformers with the cap (cover) and 25 dead front transformers (totally insulated); the Network Maintenance Services Unit installed 158 protection elements in Antioquia and carried out the rescue and relocation of 135 pollinators in distribution network maintenance infrastructure; and the Network Expansion and Replacement Unit installed 528.18 km of covered cable and carried out 410 bee rescues.

Other actions carried out by some subsidiaries of Grupo EPM for the protection of water resources and biodiversity:

- EDEQ in alliance with the Comité de Cafeteros del Quindío, established. 14.3 ha of biological corridors and planted 1,000 trees at sites with of strategic importance for the conservation of water resources.
- ENSA installed 6 kilometers of protected cable, to reduce the risk of electrocutions and collisions with birds and other animals.
- Delsur developed the consultancy: "Study of the risk of collision and electrocution of wildlife species in distribution lines and mitigation measures", the results of which will be published in the first half of 2024.
- Afinia carried out the planting of 2,994 trees.
- ESSA installed profauna equipment: 98,805 meters of ecological cable in medium voltage networks, bushing cover and insulating cable in several substations; implemented passive barriers in one substation, rescued and relocated 5 felines, a sloth, 8 wasp nests and 6 swarms of bees, an opossum, an opossum, and 2 boa constrictor specimens. It also planted 468,000 bocachico and dorada fingerlings in water

sources in the municipalities of Sabana de Torres, Rionegro and Lebrija and delivered 23,000 seedlings to CAS and 24,000 to CDMB for reforestation in ecologically important areas within the subsidiary's area of influence.

- Continuing with the "Plant a tree, plant a future" initiative, EPM Guatemala delivered 55,000 plants to communities in the area of influence of energy transmission projects, contributing to the conservation of flora, fauna and ecosystems in their territories.
- Emvarias carried out activities such as: rescue, repelling or relocating 1,141 birds, 258 mammals, 498 amphibians, 172 reptiles, 2,764 fish and nearly 260,000 individuals of aquatic macroinvertebrates; clinical care of 42 individuals; rescue and relocation of 525 plants and propagation of 194 belonging to 5 endangered or endemic species, 102 tree ferns of 6 species, all in the closed category, 876 of 3 forest species, 2 of them in the closed category; relocation of 609 belonging to 3 species of the Heliconiaceae family and 970 vascular epiphytes, 812 of aerial habit and 155 of terrestrial habit, with 27 and 11 species, respectively. Thanks to the maintenance of rescued and relocated individuals, high survival rates were achieved, between 80 and 90 %. At the level of ferns 95.9 %, vascular epiphytes 92.3 % and heliconias 99.14 %.

Grupo EPM participates in consultative and participatory instances with the stakeholders of the river basins, as follows: EPM chairs the Rio Grande and Rio Chico River Basin Council, participates in the Porce, Guadalupe and middle Porce River Basin Council, as a participation mechanism in water governance for the basins contributing to the Porce II, Porce III and Troneras reservoirs; likewise, it participates in the Nare River Basin Council.

CHEC chairs the Chinchiná river basin council, participates in the Campoalegre river basin council and other direct to the Cauca and in the Risaralda river basin council; Aguas Regionales participates in the León river basin council, Turbo-Currulao river basin council, Aurra river basin council and La Sopetrana stream; EPM supports municipal, rural and township environmental committees in the area of influence of its power generation plants.

Among EPM's actions in 2023 with other stakeholders, the following agreements stand out:

EPM-Corporación Cuenca Verde for the protection and improvement of the watersheds that supply the water supply system in the Aburrá Valley, the Riogrande II and La Fe reservoirs, and for the generation of energy in the Tasajera hydroelectric plant, by strengthening water governance and the integrated management of water and biodiversity. The first payment to 55 beneficiaries under the strategy of payments for environmental services, the holding of 20 collective community meetings with community action boards in the supply basins, and the visit to 729 properties located in these basins are noteworthy.

EPM-Corantioquia, to "join efforts, resources, capacities, knowledge and will to formulate the Plan for the development and management of the Guadalupe and Medio Porce river basin", in which the diagnostic phase was concluded and actions of the prospective and zoning phase were initiated.

EPM-Corporación Parque Arví, for the protection and ecological restoration of micro-watersheds and to carry out actions of the Integral Forest Management Plan (PIMF). The maintenance of 24.88 hectares (ha) restored and the development of 85 environmental education activities stand out.

EPM-Corpourabá, for the protection and conservation of the Serranía de Abibe. The conservation of 918.34 ha, active restoration of 141 ha and passive restoration of 70 ha.

EPM-Municipality of Envigado, to develop actions for the conservation and strengthening of strategic ecosystems and the Local System of Protected Areas Silape de Envigado and for the protection of fauna, social management and improvement of vegetation cover in areas of interest to EPM. Through this agreement, the main critical points of wildlife run over in the municipality were identified, 8 arboreal wildlife crossings and one subway crossing were installed, and 1,076 native trees were planted.

EPM-Corporación Parque Arví, for the protection and ecological restoration of micro-watersheds and to carry out actions of the Integral Forest Management Plan (PIMF). The maintenance of 24.88 restored hectares and the development of 85 environmental education activities stand out.

EPM-Cornare, for ecological restoration, payment for environmental services and sustainable productive projects in protected areas.

EPM-University of Antioquia: BIO agreement for research applied to water and biodiversity that contribute to the generation and appropriation of knowledge. Highlights include the first biodiversity characterization in the Playas and Guatapé reservoirs protection area, the development of studies of otters at the trophic ecology, individualization and distribution and diet, and gray marmosets using molecular techniques. In ichthyofauna, the Library of Life project was developed (341 individuals of 138

The Organization carried out awareness and education programs for the protection and care of natural resources and the efficient use of water, academic workshops for the generation and social appropriation of knowledge of applied studies on water and biodiversity, and educational initiatives for good practices in the use of public services, aimed at different stakeholders in the areas of influence of the projects and operations of Grupo EPM's companies. Some of these are:

- **IV Symposium on Water Resources and Biodiversity,** with the purpose of disseminating the results of 23 scientific researches developed in the different lines of management, with 291 people attending in person and 20,700 connections via streaming.
- **Symposium "Experiences on the human-wildlife conflict in Colombia"**, aimed at bringing together the experiences of environmental authorities, NGOs, public and private companies, universities and other institutionsthat work for the conservation of wildlife and the impacts that this conflict has had, especially with felines.
- **Virtual forum on water security.** EPM continues to contribute to the visibility of the water fund framework for the Riogrande and La Fe reservoirs focusing on projects in hydrosedimentological and water quality modeling, landscape ecology in the watersheds, and advances in the programmatic components of the Pomca and environmental education.
- **Environmental education EPM Generation.** At the training level, 2 diploma courses were conducted through the different lines, one in water and biodiversity management, where 147 people were certified, and another in environmental health project management with 30 community leaders and 13 sessions held. Four community initiatives on solid waste management were formulated in the four corridors of the area of influence of Porce II, Porce III and Guadalupe. At the power generation plants, 10 awareness-raising sessions were held during the environmental weeks, in which 783 people participated.

  In these spaces, different environmental awareness activities were carried out focused on efficient use, saving and care of water, waste water management, waste management, sustainability and management systems (quality, assets and environmental). These activities were aimed at contractors and related personnel working at the different power plant facilities.

- **Environmental education EPM Transmission and Distribution.** The following were carried out 42 trainings on fauna and flora in which 1,025 participants were people in the Company. In the works execution contracts, 313 hours were spent in environmental and social training processes for all employees, with about 90 different topics and 10,533 attendances in total.
- **Emvarias environmental education.** Environmental education activities were carried out, in which different topics were considered aimed at the operating personnel of La Pradera landfill, SP Ingenieros, Ecometropoli, Junta de Acción Comunal La Pradera, Asociación de veredas afectadas por el relleno sanitario La Pradera -AVA RSLP-, Interventoría Diespu and TICSA, as well as talks on the conservation of fauna and flora in some of the rural schools in the area of influence of the landfill.
- **Integrated Water Resource Management Program:** the role of power generation reservoirs in the climate strategy, management, and management of water reservoirs and their ecosystemic functions. EPM participated in Costa Rica in a course for the articulation and transfer of knowledge and to evaluate the development and progress in terms of regulation and guidelines on water resources and their preservation.
- **Bioclimatic nurseries**, Afinia obtained the registration of the Montería and San Martín nurseries with the Colombian Agricultural Institute (ICA). which guarantees the phytosanitary quality of the plant material used in restoration and reforestation actions.

Culture and awareness for the care of the environment

- **"Jaguares" program** for the promotion and education of young people for the protection, care and rational use of natural resources, particularly in natural forests and their ecosystems; program developed by Cornare and supported by EPM.
- **"I take care of water, I take care of life"**, an EPM initiative aimed at promoting and educating on efficient water use behavior and evaluation of water and sewerage services in the 10 municipalities of Valle de Aburrá and Rionegro. It reached 69 sectors and contributed to the training of 83 community leaders.

- **"Súmate al parche"**, an initiative of Aguas Regionales with more than 10 live programs on Facebook to inform, raise awareness, educate, and to discuss issues related to the provision of public water and sewage services.
- **Environmental education is everyone's responsibility"**, an initiative of Aguas de Malambo to raise awareness and train its clients and users in environmental culture through community leaders and associations.

In the topic *Quality and safety of products and services, Education and communication to customers*, users and the community, there is information related to the **Cuidamundos and Por ti, estamos ahí (We are there for you)** programs EPM raises awareness about the care of natural resources, the use and saving of water and promotes the legal, safe and efficient use of public utilities.

Main river basins supplying Grupo EPM's reservoirs and supply systems

The main watersheds supplying systems and reservoirs for hydroelectric power generation and water supply are presented, in which initiatives for conservation, protection, restoration, maintenance and improvement of environmental conditions are developed, through their own actions and with other stakeholders who live and hold activities in the watersheds. Studies by governmental entities such as the National Water Study (ENA) 2018, watershed management plans (Pomca) and water resource management plans (PORH), are the main sources of reference for the identification of risks associated with water.

EPM and some domestic subsidiaries of the Group are supplied and discharged in watersheds reported with high, medium or low water vulnerability categories according to what is reported by technical institutes (such as IDEAM Colombia) and/or environmental authorities; however, the accounting of supply and discharge in sources with water stress for the Group's operating areas is not available, since their declaration is the responsibility of the environmental authorities. Likewise, a detailed analysis has not been performed using the information available in public and credible tools for the evaluation of areas with water stress referenced in the GRI standards, such as Aqueduct Water Risk Atlas of the World Resources Institute and Water Risk Filter of WWF.

Main supplying river basins systems and reservoirs of the Grupo EPM

Company	Drinking Water Treatment Plants	Watershed	Reservoir	Main tributaries	Location in an area with water stress Water Vulnerability Index (WVI)	Usage
EPM	Manantiales Plant La Tasajera and Niquia Power Plants	Río Grande	Ríogrande II	Rio Chico - Rio Grande	ENA 2018 IVH for average year: average IVH for dry year: average	Multiple use: *Water supply *Power generation
	Villa Hermosa and La Montaña Plants	Piedras Blancas	Piedras Blancas	Piedras Blancas creek - Chorrillos creek	Aburrá River POMCA IVH for average year: average IVH for dry year: average	Water supply
	San Antonio and San Cristobal Plants	San Antonio de Prado San Cristóbal	N.A	Doña María La Iguaná	Aburrá River POMCA IVH for average year: low IVH for dry year: average	
	Caldas and Barbosa Plants	La Valeria La Lopez	N.A	La Valeria La Lopez	Aburrá River POMCA IVH for average year: average IVH for dry year: average	
	Aguas Frías and La Cascada Plants	Aguas Frías Santa Elena	NA	La Picacha and Santa Elena streams	POMCA Río Aburrá IVH for medium year: low IVH for dry year: low	
	Ayurá Plant	La Fe	La Fe	Las Palmas, Espíritu Santo, Potreros streams and Pantanillo River	POMCA Rionegro IIVH for medium year: average IVH for dry year: average	
	Palmitas Plant	Palmitas	NA	Chachafruto and Los Azules streams	No	
	Río Negro WTP	Río Negro	NA	Rio Negro	POMCA Rionegro IVH for average year: High IVH for dry year: High	
		Abreo and Malpaso streams	Abreo Malpaso Reservoir	Abreo and Malpaso streams	POMCA Rionegro IVH for average year: High IVH for dry year: High	

Main supplying river basins systems and reservoirs of the Grupo EPM

Company	Drinking Water Treatment Plants	Watershed	Reservoir	Main tributaries	Location in an area with water stress Water Vulnerability Index (WVI)	Usage
Aguas Regionales	Turbo WTP	Turbo River - Currulao	NA	Turbo River Currulao River	POMCA Medium IVH in normal conditions High IVH in dry season	Water supply
	PTAP Apartadó	Leon River		Apartadó River		
	Carepa DWTP	Leon River		Carepa River		
	PTAP Chigorodó	Leon River	NA	Chigorodó River	POMCA Average IVH under normal conditions Average IVH during dry season	
	Santa Fe de Antioquia WTP	Cauca River	NA	La Pena Creek	ENA 2018 Low IVH under normal conditions Average IVH in dry year	
	Olaya DWTP	Cauca River	NA	La Barbuda Creek	ENA 2018 Average IVH in dry season Low IVH under normal conditions	
	Sucre DWTP			La Tahamí Creek		
	Sopetrán WWTP			La Sopetrana Creek	PORH Average IVH under normal conditions Average IVH during dry season	
	San Jeronimo WTP	Aurra River	NA	La Muñoz Creek	PORH Aurra River IVH low in normal conditions IVH medium in dry season	
	Mutatá WWTP	Leon River	NA	Mutatá River	PORH Average IVH under normal conditions Average IVH during dry season	
				Sabaleta Creek		

Main supplying river basins systems and reservoirs of the Grupo EPM

Company	Drinking Water Treatment Plants	Watershed	Reservoir	Main tributaries	Location in an area with water stress Water Vulnerability Index (WVI)	Usage
Aguas de Malambo	PTAP Tesoro	Magdalena River	NA	Cauca River	ENA 2018 IVH for average year: average IVH for dry year: average	Water supply
	El Concorde WTP					
CHEC	Ínsula and La Esmeralda Power Plants	Chinchiná River	Cameguadua	Chinchiná and Campo Alegre rivers and downstream for the La Estrella stream chain.	ENA 2018 IVH for average year: medium IVH for dry year: high	Power generation
	San Francisco	San Francisco River	San Francisco	San Francisco River	ENA 2018 Otun River and others direct to the Cauca IVH middle year: low IVH dry year: high	
EPM	Troneras, Guadalupe III y IV	Tenche River	Miraflores	Tenche River	ENA 2018 IVH for average year: average IVH for dry year: average	
	Troneras, Guadalupe III y IV	Guadalupe River	Trunks	Nechí, Pajarito, Dolores, Concepción, Tenche and Guadalupe Rivers		
	Central Mocorongo	Rio Grande	Quebradona	Rio Grande		
	Guatapé	Nare River	Peñol - Guatapé	Rios Pantanillo - Black - Nare		
	Playas	Guatape River	Playas	Nare and Guatapé Rivers		
	Porce II	Porce River	Porce II	Porce River		
	Porce III		Porce III	Guadalupe and Porce Rivers		

Main hydrographic basins supplying Grupo EPM's systems and reservoirs

Company	Drinking Water Treatment Plants	Watershed	Reservoir	Main tributaries	Location in an area with water stress Water Vulnerability Index (WVI)	Usage
ESSA	Palmas	Lebrija River	Boundaries	Lebrija River	ENA 2018 IVH for average year: medium IVH for dry year: high	Power generation
	La Cascada	Fonce River	Water edge catchment	Quebrada los Macos Quebrada la Chorrera Quebrada la Chapa Quebrada la Sonora Quebrada Pajales Quebrada la Potes Quebrada el Muerto		
HET	Bonyic	Teribe River	Bonyic	Bonyic Creek	The IVH has not been established for the region	
Others						
EMVARIAS	NA	Rio Porce	NA	La Piñuela Creek San carlos Creek	ENA 2018 IVH dry year: Medium IVH medium year: Medium	Solid waste management

Note: The referenced water sources have the category of Fresh Water, dissolved solids <1000 mg/L.

Areas owned by the Group's companies - Land uses

By 2023, 813.65 km^2 of operational properties owned by Grupo EPM are registered, which are made up as follows: 598.25 km^2 (72.7 %) by natural forest vegetation cover in different successional stages;60.81 km^2 (7.47 %) by forest plantations; 134.16 km^2 (16.48 %) by reservoirs for drinking water supply and power generation;13.89 km^2 (1.7 %) correspond to infrastructure protection areas (constructed area) and the rest to unclassified areas. The contribution of EPM-Ituango Project (283.98 km^2) and EPM-VP Electricity generation (209.19 km^2) stands out, which corresponds to 82.4 % of the natural cover.

In the last year, Grupo EPM increased the natural forest vegetation cover in its operational properties, an aspect that contributes substantially to the protection and conservation of water and biodiversity in its territories.

Areas and land use (km²) - Grupo EPM, 2023

Company/Business	Reservoirs	Area built	Coverage natural	Plantations-forestry	Areas without classify	Total land operations	Ubicación geográfica
Aguas Nacionales EPM - VP Water and Sanitation		0.3	0.12			0.42	Antioquia, Colombia
CHEC - Energy Transmission and Distribution	0.96	1.11	68.33			70.40	Caldas, Colombia
Emvarias - VP Water and Sanitation		0.73	3.63	0.03	0.69	5.08	Antioquia, Colombia
ENSA - VP Energy Transmission and Distribution		0.04	0.03			0.07	
EPM - VP Water and Sanitation	1.57	0.28	13.51	14.44	0.83	30.63	Antioquia, Colombia
EPM - VP Power Generation	110.14	6.76	209.19	46.35	5.02	377.50	Antioquia, Colombia
EPM - VP Ituango Project	21.21	3.83	283.98			309.02	Antioquia, Colombia
ESSA- VP Energy Transmission and Distribution		0.03				0.03	
HET - VP Power Generation	0.27	0.76	19.46			20.50	Bocas del Toro/ Panamá
Total properties by type of coverage	**134.16**	**13.89**	**598.25**	**60.81**	**6.54**	**813.65**	

Source: *Templates areas and uses Grupo EPMs (Aguas Nacionales, Chec, Emvarias, EPM and HET). Year 2023.*

* Water bodies: includes reservoirs for drinking water supply and power generation, as well as double drainage network present in the layer of operational properties in the geographic information system.

Protected areas, adjacent and others

Grupo EPM continues to contribute to the conservation of biodiversity and ecosystem services, with 850.64 km² of its operational properties, of which 371.12 km² (43.6 %) are classified as declared protected areas, 90.75 km² (10.66 %) are located adjacent to protected areas and 388.77 km² (45.7 %) are located in areas considered as ecosystems with high biological diversity. This information is based on our own studies and territorial management tools. Between 2021 and 2023, the accumulated total is 1,403.80 km² of operational properties in one of these categories, most of which are declared protected areas (747.94 km²).

Operational properties in protected areas, adjacent or with high biodiversity (km²)-Grupo EPM 2023

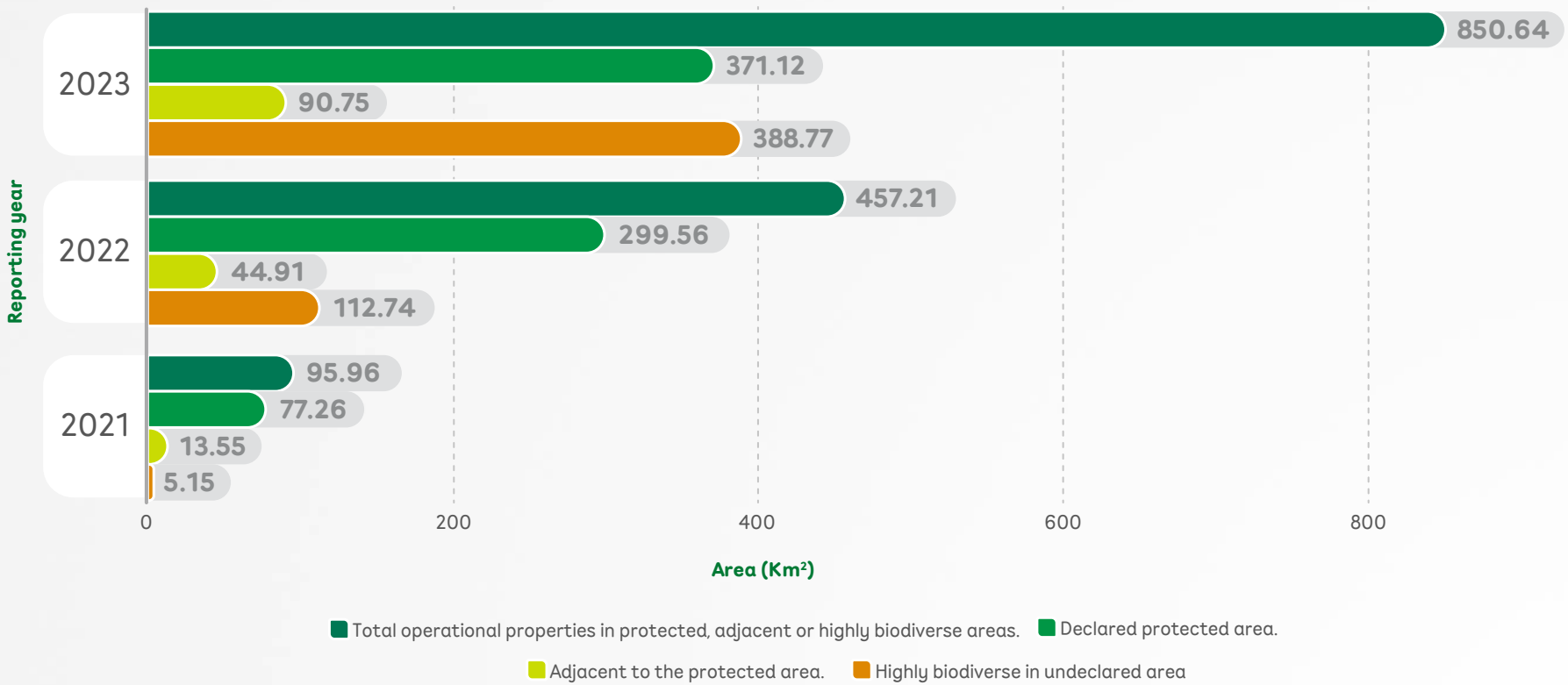
Business	Area protected declared	Adjacent to the protected	With high biodiversity in an undeclared	Total area of operational properties in protected, adjacent or high biodiversity	Reference
CHEC- Energy Transmission and Distribution	52.20	11.68	3.13	67.01	CHEC forests, Los Nevados National Natural Park buffer zone.
Emvarias - VP Water and Sanitation	0.42		2.29	2.71	Biological corridors of the La Jagua stream and the Aburrá river.
EPM - VP Water and Sanitation	26.95	2.69		29.63	Nare Forest Reserve.
EPM - VP Power Generation	184.92	30.86	152.48	368.26	Playas Protected Forest Reserve and some municipal forest reserves. Peñol-Guatapé Reservoir DRMI, Cacica Noria DRMI. Humid to very humid tropical forests, premontane to montane.
EPM - VP Ituango Project	94.65	45.32	218.90	358.87	Priority conservation area PHI, Cauca River riparian zone, DMRI Peque, Complementary Conservation Strategy (ECC PHI) and Regional District of integrated management of the dry forest of western Antioquia.
HET - VP Power Generation	11.98	0.20	11.98	24.16	Palo Seco Protected Forest Reserve.
Grand total	**371.12**	**90.74**	**388.78**	**850.64**	

Source: *Templates areas and uses Grupo EPM (CHEC, Emvarias, EPM and HET). Year 2023*

DRMI: regional integrated management district.

Grupo EPM continued working with environmental authorities, territorial entities, communities and other stakeholders within the territories to expand and strengthen the system of protected areas and strategic ecosystems. Thus, in the last three years the total areas of the group's operational properties that are part of protected areas, amortization zones and that have high biodiversity value have increased. Hidroituango continues to implement the Complementary Conservation Strategy (ECC) in ecosystems of high biodiversity.

Protected, adjacent or high biodiversity areas (Km²)



Conservation of endangered species

In 2023, Grupo EPM continued with the registration of threatened species of flora and fauna (species that are susceptible to extinction) present in its own properties and operating areas of subsidiaries in Colombia, El Salvador, Guatemala and Panama. The reports are made based on the lists of endangered species of the International Union for Conservation of Nature (IUCN), the applicable regulations in each country (including regional and national bans) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

As in previous years, these species continue to be recorded through the results of various studies, monitoring and research that demonstrate their state of sensitivity and the need for their protection. It is worth noting that the variation in the number of species from one year to another is closely related to the results of these studies. Depending on the characteristics of the study, monitoring or research carried out, one group may become much more representative; for example, in 2022 the number of epiphytes increased, while in 2023 the group of birds was more representative.

For 2023, Grupo EPM reported 541 threatened species, of which flora accounted for 50.46 % (273). The most representative group was trees and shrubs with 213 species, followed by epiphytes with 45 and ferns with 15. Fauna contributed 49.7 % (269), where birds were the group with the highest number of species (183). The other groups reported the following data: 32 mammals, 29 amphibians, 12 reptiles and 13 fish.

By 2023, EPM and its 8 national subsidiaries reported 252 threatened species for Colombia. For their part, the subsidiaries HET, ESSA and ENSA recorded 226 for Panama, while the subsidiary Eegsa reported 83 for Guatemala and the subsidiary Delsur 5 for El Salvador. The lists include species characteristic of the neotropics, some of which are endemic or migratory, rare and have in common their susceptibility to extinction. The results highlight the importance of Grupo EPM's operational centers for the conservation of these endangered species, thanks to the variability and supply of habitat, refuge and resources for these species, as they are found in 14 types of ecosystems (natural, mountain, humid tropical and dry forests) in which coverages related to successional advancement stand out as secondary vegetation and where the greatest number of reports were made; water bodies (rivers, swamps, lakes, lagoons) and reservoirs; wetlands, mangroves, forest plantations, urban areas and mostly altered areas). The variability of ecosystems is due to the conditions of the areas where the properties are acquired and the development of compensation activities such as active and passive ecological restoration and tree planting, taking into account that in these activities the ecosystemic equivalence is always preserved and highlighting that these are due to factors established by the competent authorities, which can reach a ratio of 1:10 for each hectare affected, depending on the type of ecosystem to be affected and at the discretion of the environmental authority.

Species report by biological group

Species report by biological group of Grupo EPM - Year 2023

Company-business	Reported Species by Biological Group							
	Amphibians	Birds	Mammals	Reptiles	Fish	Flora	Epiphytic flora.	Total species
Aguas de Malambo - VP Water and Sanitation					1			**1**
Aguas Nacionales EPM - VP Water and Sanitation	1	28	1	2				**32**
Aguas Regionales EPM - VP Water and Sanitation		1	2	1				**4**
Emvarias - VP Water and Sanitation	8	2	3		1	24	6	**44**
CENS - VP Power Transmission and Distribution		1				2	11	**14**
ESSA - VP Energy Transmission and Distribution	5	21	2	3		2	16	**49**
Eegsa - VP Transmission and Distribution Energy	4	44		3		18	14	**83**
ENSA - VP Energy Transmission and Distribution		69	5	3		110		**186**
Delsur - VP Transmission and Distribution Energy		4		1				**5**
HET - VP Power Generation		3	9			28		**40**
EPM - VP Power Generation	11	45	17	3	7	36		**119**
CHEC - VP Power Generation	1							**1**
EPM - VP Ituango Project		9	6	1	10	15		**41**
Total threatened species:	**29**	**183**	**32**	**12**	**13**	**228**	**45**	**542**

Categories: report for threatened species in Critically Endangered (CR), Endangered (EN), Vulnerable (VU) and Near Threatened (NT) categories. Threatened status (IUCN: https://www.iucnredlist.org/; CITES Appendices I and II: http://checklist.cites.org/; Colombia: Resolution 1912 of 2017; Panama: Resolution DM-0657 of 2016).

The categories of national and regional closures apply to Colombia according to Inderena and regional autonomous corporations.

Flora grouped the largest number of species with 273 (50.46 % of threatened species). Of these, 212 (77.6 % of threatened flora species) correspond to trees and shrubs, 45 (16.4 %) to vascular and non-vascular epiphytes and 15 (5.5 %) to ferns. The following timber species are critically threatened: Aiouea lehmannii (laurel), Cariniana pyriformis (abarco), Swietenia macrophylla (mahogany), Aniba perutilis (cumin), and Andea antioquiensis Van der Werff (laurel), Sapranthus viridiflorus G.E. Schatz and the orchid Trizeuxis falcata.

In wildlife, 269 species were recorded (49.7 % of threatened species), of which birds are the most representative group with 183 (68 % of threatened fauna species). Some of their most representative families are included in CITES Appendices I and II due to their high traffic (for example, trochilidae (hummingbirds and hermits), accipitridae (hawks, eagles and harriers), falconidae (hawks), among others). Thryophilus nicefori (paisa cockatoo) is a critically endangered species.

Next, in order of representativeness, are mammals with 32 threatened species (11.89 % of threatened fauna species). Two species are among the 10 most emblematic at-risk species in Colombia: Saguinus oedipus (cotton-top tamarin) and Panthera onca (jaguar). The following species are also in the critical threat category: Tapirus bairdii (IUCN), Ateles geoffroyi, and Odocoileus virginianus (white-tailed deer).

Also noteworthy is the presence of the feline assemblage (a group of which little is known because they are shy animals, with cryptic habits and difficult to study by direct observation due to factors such as their low population densities and the large size of their territories), corresponding to the 6 species reported for Colombia: Leopardus pardalis (ocelot), Leopardus wiedii (margay), Leopardus tigrinus (ocelot), Herpailurus yagouaroundi (jaguarundi), Panthera onca (jaguar) and Puma concolor (puma), species of much concern in our country due to conflict with humans, who attribute the death of livestock to them.

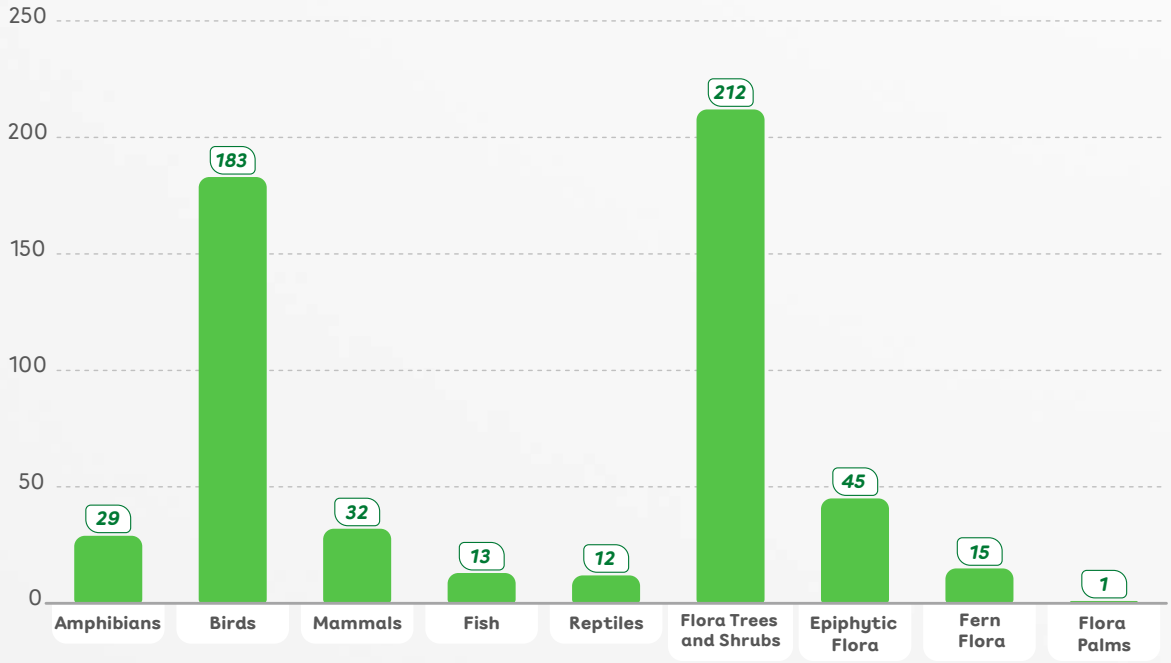
Amphibians, with 29 species, represent 10.78 % of the threatened fauna species. The presence of Pristimantis acutirostris (frog), a species that is not only endemic to Colombia, but also has a restricted distribution, stands out.

Reptiles were represented by 12 species, which corresponds to 4.46 % of the threatened species. Chelonoidis carbonarius (morrocoy turtle) is reported as a critically endangered species in this group. This is a group that is highly threatened by the destruction of illegal trafficking as pets and egg

consumption, repulsion and fear caused by animals such as snakes. In general, fauna faces illegal trafficking, the introduction of exotic species, the expansion of the agricultural border, infectious diseases, the loss, transformation and fragmentation of habitats, and climate change.

As for the ichthyofauna, 13 species were recorded, representing 4.83 % of the total number of threatened species. Within this faunal group, the presence of Pimelodus grosskopfii (capaz), a critically endangered species, stands out. Other sensitive species reported this year are: Brycon henni (sabaleta), Brycon moorei (dorada), Characidium phoxocephalum (mazorco), Curimata mivartii (vizcaína), Genycharax tarpon (boquiancho), Ichthyoelephas longirostris (pataló), Megaleporinus muyscorum (eel), Prochilodus magdalenae (bocachico), Pseudoplatystoma fasciatum (striped catfish). The main threat is water pollution.

Number of species per biological group



In the last three years, Grupo EPM has consolidated 1,039 threatened species in its operational areas, 65.56 % of which are flora, with a large representation of epiphytes (52 % of the flora and 34 % of the total flora

and fauna species). Reports from 2022 (333 species) have a high incidence. The next representative group is trees and shrubs, which have accumulated 27 % of the reports for the last 3 years. With respect to fauna, there is an accumulated 34.4 %, with bird fauna as the most representative group due to the number of species (65.3 % of the fauna and 22.5 % of the total number of flora and fauna species).

Although in the last 3 years the number of threatened species has increased, in general the number of species reported by biological group has been stable, except in 2022 when 333 epiphytes were reported and in 2023 when the number of birds doubled compared to 2022. As in previous years, the determinant of the report becomes whether or not the information is collected; for example, this year ENSA carried out the Voluntary Environmental Audit PAMA Colón A and EPM carried out monitoring in plants such as Playas, La Sierra and Peñol-Guatapé.

EPM Group, registry of threatened species between 2021-2023

Species	2021	2022	2023	Accumulat
Amphibians	16	16	29	47
Birds	84	92	183	234
Mammals	24	25	32	42
Fish	14	14	13	19
Reptiles	8	10	12	19
Subtotal fauna	**146**	**157**	**269**	**358**
Trees and shrubs	58	57	212	283
Epiphytes	9	333	45	355
Tree fern	20	20	15	42
Palms	1	4	1	4
Zamia	1	1		1
Subtotal flora	**89**	**415**	**273**	**681**
Total groups	**235**	**572**	**542**	**1,039**

See Annex *with list of endangered species*

GRI standard content and proprietary indicators

EPM-01	Conservation areas
EPM-10	Water protection
Content GRI 303-1	Interaction with water as a shared resource
Content GRI 304-4	Species on the IUCN Red List and on national conservation lists whose habitats are in areas affected by the operations.
Content GRI 303-3	Water extraction
EU13	Comparison of biodiversity between compensated habitats and affected areas.

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas del Oriente
- Aguas Nacionales EPM
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Empresa de Energía del Quindío - EDEQ
- Electrificadora de Santander - ESSA
- Centrales Eléctricas del Norte de Santander - CENS
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Elektra Noreste - ENSA
- Hidroecológica del Teribe - HET
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia - Malambo, Atlántico
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Risaralda
- Colombia – Santander
- Colombia - Norte de Santander

- Guatemala
- Panama
- El Salvador

Business

- Water
- Sanitation
- Electricity
- Gas
- Waste

Back to content

Sustainability Report

2023

Use of water and effluents

Grupo·epm

Use of water and effluents

The main source of supply of the Grupo EPM for the provision of its services corresponds to the flows granted by the environmental authority from surface sources. To a lesser extent, there are the aqueduct and other sources (underground, sea/ocean, and rainwater). Its projects and operations consider the development of initiatives to optimize use and recirculation in processes and risk management due to scarcity. Effluents from production and domestic activities are treated and discharged to water sources and soil in compliance with environmental regulations.

Management in 2023

Grupo EPM used 19.5 million m^3 of water for productive activities, cooling and domestic use, of which 16.7 million (85 %) were used by EPM. The main sources of supply were surface and marine.

97.8 % of the water was used for power generation, followed by 2.1 % for drinking water supply.

Grupo EPM optimized the use of the natural resource water, recirculating 41 million m^3, 86 % of which was used for energy generation and 10 % for water supply.

Water use and effluent management by 2023

Grupo EPM developed projects and initiatives for the efficient use and exploitation of water and effluent management, improving the quality of life of the community and the environmental conditions of the territories where it operates. Some of these are:

- **EPM's Sanitation and Wastewater Management Plan (PSMV):** is the set of programs, projects and activities, with theirrespective schedules and investments necessary to make progress in the cleanup and treatment of wastewater discharges and their environmental issues and contribute to the decontamination of the Aburrá-Medellín

river and its tributary streams by collecting, transporting and treating wastewater from customers and users through a complete sewage system: secondary networks, collectors, interceptors and treatment plants. In 2023, the operation of the San Fernando, Aguas Claras and El Escobero plants continued, which represents improvements in the sanitation of water sources and public health, works were executed in the basins of the La Iguaná and La García streams, in the eastern interceptor and the Interceptor Sur project, as well as design activities for the interceptor in the municipalities of Copacabana and Girardota. More information is provided in the *Wastewater Management and Commercialization section* of the EPM 2023 Management Report.

- **Gap closure:** its objective is to improve the quality of life and the environment of the communities through the construction of sewers in areas of difficult access in municipalities of the Aburrá Valley. EPM executed projects in the following streams, included in the PSMV: El Sapero, La Doctora, Caño Granizal, La Chorrera, La Valeria and La Bermejala, and wastewater collection in the Mandalay and La Chuscala sectors in the municipality of Caldas.

- **Comprehensive management of unaccounted-for water in drinking water supply:** actions related to improving operational efficiency; includes monitoring and management of technical and commercial losses modernization of infrastructure, improvement of micro-measurement, registration, relations, and communication with clients and users.

Water loss management is measured with the loss per billed user index (IPUF). Further information is provided in the topic *Quality and safety of products and services*, Loss management.

- **Recirculation of water: d**uring 2023 EPM recirculated 35.1 million m^3 of water in the power generation process and 4 million m^3 in the water supply and wastewater management of administrative buildings and customer service offices.
- **Programs for the efficient use and saving of water (Pueaa) and programs for the efficient and rational use of water (Pueyra):** were implemented in EPM facilities and subsidiaries of Grupo EPM to reduce or maintain water consumption, storage and use of rainwater, maintenance and modernization of infrastructure and plumbing installations, monitoring and management of losses, analysis and management of information and awareness of consumption habits. With the community interest group, a training workshop was held with leaders, experiences and neighborhood workshops, door-to-door delivery of leaflets, the "Cuidamundos" mission with the educational community, and the celebration of water day.
- **Effluent management:** EPM's facilities and subsidiaries of the group carried out adequate management of domestic wastewater. The company's own sewage systems through connection to municipal sewage networks and the implementation of individual treatment systems such as septic tanks and infiltration systems, carrying out inspection, maintenance, monitoring, and characterization of physicochemical parameters in accordance with applicable regulations. Water discharges from hydroelectric and thermal power generation and discharges from drinking water supply, wastewater treatment, and solid waste management are managed in accordance with the environmental authority.
- **Strategy for linkage to the Norte de Santander Department Water Fund:** in 2023 a voluntary contribution was signed between CENS and companies such as Veolia, Geoaseo, Alianza Biocuenca, Secretariat of Environment of the Department of Cesar, SENA, Chamber of Commerce, Corpocesar, community and others to achieve alliances for the conservation of urban ecosystems of interest. This voluntary contribution expresses the interest of establishing joint actions for the protection and conservation of the ecosystem called Aguil urban tropical dry forest in the municipality of Aguachica, Cesar, as an area that provides ecosystem services of water regulation, habitat for animal and plant species, and recreation.

- **Integrated watershed management:** the EPM Energy Generation business carried out actions for the conservation of the water resource, biodiversity and ecosystems through the conservation of 7,903 hectares, mainly associated with the purchase of land that is part of the 1 % compulsory investment for the Porce II and Porce III hydroelectric power plants.
- **Water quality monitoring in Incienso and Antigua substations:** EPM Guatemala carried out monitoring in 2023, where the results showed that the parameters analyzed in comparison with Governmental Agreement 236-2006 "Regulations for the Discharge and Reuse of Wastewater and Sludge Disposal" are within the established limits.
- **EPM Guatemala,** ventured into the provision and sale of real-time water pump control and monitoring services, promoting saving energy consumption, reducing water losses and monitoring the operation.

In the *Water conservation and biodiversity action*, there is information on some initiatives of culture and awareness for the care of the environment.

In the area of *Access and Affordability,* Housing Rehabilitation, EPM's Conexiones por la Vida (Connections for Life) program, implemented to provide water and sewage services to benefit the communities and improve the environmental conditions of the surroundings, was expanded.

In the topic *Quality and safety of products and services*, Education and communication to customers, users and the community, there is information related to the programs Cuidamundos and Por ti, estamos ahí, through which EPM raises awareness on the care of natural resources, the use and saving of water and promotes the legal, safe and efficient use of public services.

Water risk management

Grupo EPM incorporated the risks associated with water resources and biodiversity and has chosen to change and adopt integrated management practices to promote the sustainable development of the territories where it is present with initiatives aligned with the National Risk Management Policy associated with water resources, which considers two important elements: excess (events such as torrential floods, floods and landslides) and water deficit (problems of availability of the resource), which affect water quality and generate damages in the distribution systems to the different users.

EPM carried out the cleaning, collection, transportation and final disposal of waste generated in the supplying and receiving basins that are part of the aqueduct and sewerage system. Other entities such as Emvarias, the Secretary of Health, the National Army, the National Police, community leaders of the area, the Management of Townships, the Secretary of Security and Coexistence and the Secretary of the Environment of the Mayor's Office of Medellín participated in these activities. The main activities were carried out in the La Iguaná, Malpaso, La Seca, Doña María, Santa Elena and La Rosa streams, where 474 m^3 of construction and demolition waste, 896 m^3 of bulk waste and 592 m^3 of ordinary waste were managed. In addition, 60 educational activities were carried out, 21 operational activities were carried out and 3,568 people were impacted.

Regarding the risk management and discharge management plan of the wastewater treatment plant - PTAR Aguas Claras, its operation was carried out under high quality standards; during 2023 it fully complied with Resolution 0631 of 2015 and in all months efficiencies above 80 % were obtained for BOD, COD and TSS.

Regarding the risks of the La Pradera landfill leachate treatment plant, operated by Emvarias, during 2023 the company complied with the obligations associated with the environmental license; monthly monitoring of groundwater and runoff, as well as the discharge from the plant to the Porce River, was carried out, showing the correct continuity of the system. In addition, surface water was monitored every six months. These records ensured that the water resources inside the landfill were not contaminated by operational activities, and the limits established for discharges were complied with.

EPM has a hydrometeorological information system that supports the planning, construction, and operation of infrastructure for the provision of drinking water and generation of electricity. The system consists of 200 hydroclimatic stations installed in the basins and tributaries of all its reservoirs and projects in the departments of Antioquia and La Guajira. Information on various hydro-climatic variables is captured in real time and transmitted to information systems for monitoring, analysis and hydro-meteorological modeling, which are inputs for defining strategies, goals and operational objectives.

For the management of water-related risks, actions are carried out by the company itself and with other stakeholders that live and develop activities in the watersheds, taking into account information from government entities, environmental authorities, and the company's own information related to vulnerability indexes for supply and quality indicators. In Colombia, regulations prioritize the use of water resources for human consumption over any other use, so the risks to water supply associated with competition with other sectors are low.

Some of the initiatives related to the integrated management of water resources and biodiversity are indicated in the action *Water conservation and biodiversity*.

Water supply

Water supply Grupo EPM (Thousands m³)*

2023	19,522,715	↓ -17 %
2022	23,486,867	↑ 13 %
2021	20,871,462	NA

* 1 Megaliter= 1,000 m³

Superficial Grupo EPM

2023	19,462,378	↓ -17 %
2022	23,476,925	↑ 13 %
2021	20,858,194	NA

Aqueduct Grupo EPM

2023	931	↑ 5 %
2022	883	↓ -76 %
2021	3,728	NA

Other sources Grupo EPM

2023	59,407	↑ 556 %
2022	9,059	↓ -5 %
2021	9,540	NA

* Includes: Ground, Sea/Ocean, Tank Car, Atmospheric (rain) and Bottled Water.

Superficial EPM

2023	16,734,876	↓ -21 %
2022	21,164,515	↑ 17 %
2021	18,049,455	NA

EPM Aqueduct

2023	450	↑ 1 %
2022	445	↓ -6 %
2021	474	NA

Other sources EPM*

2023	4	↓ -20 %
2022	5	→ 0 %
2021	5	NA

The figures for 2021 and 2022 were adjusted due to inconsistencies that were corrected.

* Other sources include: Groundwater, Sea/Ocean, Tank Car, Atmospheric (rain) and Bottled Water.

In 2023, 99.7 % of Grupo EPM companies were supplied from surface sources, using and taking advantage of the concessions issued by the environmental authorities. For EPM, this supply corresponded to 85.7 % of the group's total.

For Grupo EPM and EPM, a decrease of 17.1 % of surface sources was obtained due to the optimization and rationalization of the use of the resource required for the provision of services, mainly in hydroelectric power generation and water supply, and for EPM it represented a decrease of 20.9 %.

A minimal proportion of the water supply is provided by aqueduct, basically for the operation of the administrative infrastructure required to provide services, such as administrative buildings, offices, substations, customer service offices, hydroelectric generation plants, gas stations, tanks and pumping stations.

Sea water supply, the main source in the "other" category, is used to supply drinking water in the Antofagasta region, Chile, by the subsidiary Adasa, which operates the following infrastructure: Norte desalination plant, Cerro Topater filter plant, Salar del Carmen filter plant and Tocopilla desalination plant. Desalination is an alternative to address water scarcity, reduce the pressure on mountain supply sources and contribute to climate change adaptation.

EPM's La Cruzada, Carepa, Nueva Esperanza and Magdalena Medio power substations used 332 m^3 of rainwater, due to favorable rainfall conditions in the areas where they are located; the resource has been used by implementing collection and storage systems for cleaning and sanitation purposes, reducing the use of other supply sources.

In the year 2023, water consumption in EPM's energy transmission and distribution facilities decreased by 14 % with respect to 2022; the substations reflect the highest percentage of decrease. In general, this is explained by the completion of civil works in several substations, leak corrections, and mainly by the separation of the meter from the control building (CRC) of the Colombia substation located in the municipality of Medellín.

Water consumption at the **Aguas Claras WWTP** is mainly for water treatment processes of incoming wastewater. The water is used for equipment, seals, pumps and odor control equipment, among others. Considering that the treated flow rate has been relatively similar over the last few years, the correlation with water use for treatment remains stable.

For the company **Aguas de Oriente**, the supply does not present significant variations; the water catchment for drinking water treatment is in accordance with the water concession granted by Cornare.

More than 90 % of the water consumption reported by the Gas business is reflected in the facilities of the La Alpujarra thermal district. In 2023, consumption increased because it had to generate more thermal energy than usual, since this generation is directly proportional to the consumption of electricity and water.

Water consumption and use

Water use Grupo EPM (Thousands m³)*

2023	19,522,715	↓ -17 %
2022	23,486,867	↑ 13 %
2021	20,871,462	NA

* 1 Megaliter= 1,000 m3

Productive Grupo EPM

2023	19,500,257	↓ -17 %
2022	23,391,115	↑ 13 %
2021	20,733,878	NA

Cooling Grupo EPM

2023	21,714	↓ -77 %
2022	95,074	↓ -30 %
2021	136,171	NA

Domestic Grupo EPM

2023	744	↑ 10 %
2022	678	↓ -52 %
2021	1,414	NA

Productive EPM

2023	16,713,118	↓ -21 %
2022	21,069,443	↑ 18 %
2021	17,913,327	NA

EPM Cooling

2023	21,713	↓ -77 %
2022	95,066	↓ -30 %
2021	136,164	NA

Domestic EPM

2023	499	↑ 9 %
2022	456	↑ 3 %
2021	442	NA

The figures for 2021 and 2022 were adjusted due to inconsistencies that were corrected.

Note: Surface and aqueduct water sources have the category of freshwater dissolved solids <1,000 mg/l and water sources categorized as other water have the category of total dissolved solids > 1,000 mg/l.

The data shown were consolidated from the record of information entered into the IDSOS application by the liaisons responsible for each of the companies of Grupo EPM. The input methodology consists of monthly reporting of general data such as year, month, company, business, reporting level, unit, type/category, infrastructure name, reporting officer and specific data on water consumption and use such as type of use, type of source, subscribed service number (only in the case of aqueduct), source name, concession (m^3 /sec) and consumption m /period.[3]

Productive use

Productive use, thousands m³/year

Activity	Grupo EPM	EPM
Generate energy	**19,074,152**	**16,390,211**
Potabilization	422,536	322,630
Cooling	21,714	21,713
Industrial	3,133	49
Domestic	744	499
Wastewater treatment	437	228

In 2023, Grupo EPM used 99.8 % of the total water for its production processes and EPM used 85.6 %, in both cases mainly for power generation and drinking water supply.

For Grupo EPM and EPM, the 17 % decrease in the type of productive use was due to an optimization of consumption and sustainable use for the provision of services.

The decrease in the productive use of water in 2023 corresponds to the lower hydroelectric generation for Grupo EPM. On the contrary, the use for activities associated to thermal generation in general terms increased associated to the higher generation of Termodorada and the San Francisco plant operated by CHEC, although for EPM's La Sierra thermal plant there was a decrease in water for cooling due to the lower generation with La Sierra Unit 3 (combined cycle) where it returns to the Magdalena River without significant impacts.

The total amount of water consumed in the facilities of EPM's Energy Transmission and Distribution Vice-Presidency is for domestic use.

Regarding domestic use, there was an increase in consumption for the 2023 period, mainly associated with camps at EPM's Porce and Guadalupe power plants. Specifically at the El Tablón headquarters due to the modernization of the cable car, vacation loans and educational activities. Also at CHEC's La Esmeralda casino.

In the offices of the Gas business, we worked on the optimization of the resource by raising awareness of the rational use of water among the employees who work there.

In the year 2023, some 20 tank decompressor stations were installed to collect rainwater. This proposal seeks to make better use of this resource and reduce the consumption of drinking water.

Water use at CENS is domestic and is used for sanitary facilities, for workers' consumption, washing of cleaning utensils and watering of gardens, among others. Regarding water use by infrastructure, it was found that the highest consumption is in the administrative offices, mainly in Sevilla; in second place, the San Mateo substation; and in third place, the customer service offices.

In the case of CHEC, the largest amount of water was destined for productive use for the generation of hydraulic and thermal energy, in a proportional relationship with the availability of the plants; domestic water consumption in some substations increased due to the different works and projects that were carried out in them.

In EPM Guatemala there was a 14 % reduction in water use overall. Most employees work in hybrid mode, which has helped to improve consumption controls.

With respect to the variation in ESSA's historical water supply history, in 2023, activities continued with the replacement and modernization of existing infrastructure. In addition, the scope of water consumption data reporting was further expanded.

The main use of water from the network consumed at the Aguas Claras WWTP, operated by Aguas Nacionales, is the wastewater treatment process. There was a slight increase in the consumption and use of water that does not represent variations with respect to historical consumption.

Aguas de Malambo carried out actions to minimize water losses, such as repairing leaks in plants and networks and reducing the flow captured, thus optimizing consumption.

Grupo EPM companies have programs for efficient water use and savings maintain water consumption, manage losses, raise awareness and promote responsible consumption habits, which are updated in accordance with applicable regulations.

Recirculated water

Recirculated water EPM, thousands of m³

Process	2021	2022	2023	Variation 2023-2022
Hydroelectric generation plants	33,118	35,995	35,098	↓ -2 %
Thermal generation plants	9	7	5	↓ -27 %
Water supply	2,401	3,230	4,102	↑ 27 %
Administrative buildings and customer service offices	30	32	17	↓ -45 %
Total	**35,558**	**39,264**	**39,223**	**↓ 0%**

The highest value of recirculated water in EPM was in power generation with 89.5 % and then in water supply with 10.5 %.

The only facilities that reported recirculated water in the generation process were the La Sierra thermal plant and the Guatapé and Playas power plants, with minimal variations between periods.

Water recirculation in the hydroelectric power plants had a reduction of 2 % and the indicator remained stable compared to the previous year. As for the La Sierra thermal power plant, the 27 % decrease is due to lower generation in 2023.

In the drinking water treatment process, water recirculation depends mainly on the quality of the water collected. The increase is because in the drinking water treatment plants a greater amount of water was used for washing the physical structures, the filter washing process was optimized and there was a greater production of drinking water.

The wastewater treatment processes at the Aguas Claras require water for different equipment. In this sense, Aguas Nacionales has implemented the efficient use of water by prioritizing reuse in the process on the

consumption of the aqueduct network. The wastewater treated at the Aguas Claras WWTP is used in the treatment processes in an exercise of circularity and good environmental practices.

In general, the Transmission and Distribution business does not recirculate water, but rainwater is used for cleaning, sanitation and garden irrigation in some subsidiaries.

At ESSA, water meters were installed at the Isla VI, El Condor, Puerto Wilches and Barranca substations to quantify and report recirculated water consumption. When analyzing the data measured in 2023, a negative variation was observed that could be related to the increase in temperatures or the prolongation of dry seasons in the area.

Effluents: origin of discharges

Origin of discharges Grupo EPM (Thousands

2023	**214,449**	↓ -26 %
2022	291,404	↓ -16 %
2021	346,805	NA

Productive Grupo EPM

2023	**179,706**	↓ -5 %
2022	190,151	↑ 0 %
2021	190,111	NA

Cooling Grupo EPM

2023	**21,700**	↓ -75 %
2022	85,193	↓ -37 %
2021	136,118	NA

Domestic Grupo EPM

2023	**13,043**	↓ -19 %
2022	16,060	↓ -22 %
2021	20,575	NA

Productive EPM

2023	**54,238**	↓ -6 %
2022	57,976	↓ -3 %
2021	60,075	NA

PM Cooling

2023	**21,700**	↓ -75 %
2022	85,193	↓ -37 %
2021	136,118	NA

Domestic EPM

2023	**1,445**	↑ 372 %
2022	306	↓ -4 %
2021	320	NA

The figures for 2021 and 2022 were adjusted due to inconsistencies that were corrected.

Knowing where the water used in the life cycle comes from and where it goes allows for more efficient management of this resource and compliance with national legislation.

In Grupo EPM, the effluents and discharges resulting from the provision of water supply and hydroelectric power generation services (which are the largest in volume) are treated and disposed of in accordance with the provisions of environmental regulations, carrying out an integrated management of water resources.

83.8 % of Grupo EPM's discharge is of a productive (industrial) type, made up of discharges from wastewater treatment plants (WWTP) of customers and users and drinking water treatment plants, hydroelectric power plants and to a lesser extent from thermal power plants. In 2023, 179 million m^3 of productive origin with better quality parameters were discharged into the receiving sources, of which 30.2 % corresponded to EPM.

As for the origin associated with cooling, 100 %, equivalent to 21.7 million m^3 , were discharged at the La Sierra thermoelectric power plant; this type of discharge corresponds to 10.1 % of the group and the decrease of 75.0 % compared to the previous year is due to lower energy generation.

In 2023 Aguas del Oriente began operating the wastewater pumping station in the Villa Elena sector, where two upflow anaerobic filters (FAFAS) managed by the company previously operated; the wastewater collected there is sent to the El Retiro wastewater treatment plant (PTAR).

Regional Water discharges increased due to the demand for potable water production, since due to the large amount of sludge sedimentation in the sedimentation units and filters, constant backwashing is required, as is the case of the Apartadó, Turbo, Chigorodó, Santa Fe, Olaya and Sucre systems, which had higher consumption compared to the previous year.

Aguas Nacionales, as operator of the Aguas Claras WWTP, has historically maintained high flow values that are relevant for the sanitation of the Medellín (Aburrá) River; however, the reduction in treated flow is explained by the change in seasonality compared to previous years, as well as by the maintenance work on the sewerage network implemented by EPM since the end of last year.

All effluents in the Transmission and Distribution business are of domestic origin, since it does not use water as an input for any of its processes and its facilities only perform operational and administrative functions.

For the Energy Transmission and Distribution business, domestic water discharges in 2023 compared to 2022 decreased by 14 %, which is consistent with the decrease in water consumed in the facilities. The highest percentage of decrease is located in the substation type facilities, specifically in the Colombia substation due to the separation of the meter from the control building (CRC) carried out in March 2023.

All of CHEC's discharges are of domestic origin and most of its facilities are connected to the sewer system; therefore, the value reported corresponds to the discharge of water consumed in the facilities.

ESSA presented a slight variation in the generation of domestic effluents, due to the increase in water consumption during the replacement and modernization of existing infrastructure.

In 2023, the effluent from CENS infrastructure increased by 115 % with respect to 2022. The increase in the flow of water discharged corresponds to the increase in personnel and employees in local areas, including plant workers, contractors, apprentices and customers served in the offices.

EPM Guatemala's water consumption is of domestic origin, and the ordinary water discharged to the sewage system comes from its own well or from municipal sources (water from third parties). Compared to the previous year, water consumption in facilities was reduced by 14 % and water discharged by 7 %.

Discharges from the Energy Generation business decreased due to the lower generation of the La Sierra thermal power plant in 2023. For the Playas power plant, a new system was registered that did not affect the overall decrease trend.

Effluents: destination and receiving source

Receiving source of discharges-Grupo EPM (Thousands m³)		
2023	214,465	↓ -26 %
2022	291,404	↓ -16 %
2021	346,805	NA

Superficial Grupo EPM		
2023	205,841	↓ -28 %
2022	284,849	↓ -16 %
2021	338,891	NA

Soil Grupo EPM		
2023	156	↓ -42 %
2022	268	↑ 75 %
2021	153	NA

Sewerage Grupo EPM		
2023	5,144	↑ 56 %
2022	3,298	↓ -32 %
2021	4,871	NA

Other sources Grupo EPM		
2023	3,325	↑ 11 %
2022	2,990	↑ 3 %
2021	2,889	NA

Superficial EPM		
2023	72,779	↓ -48 %
2022	140,756	↓ -27 %
2021	192,172	NA

EPM Soil		
2023	13	↑ 2 %
2022	12	↓ -34 %
2021	19	NA

Sewerage EPM		
2023	4,590	↑ 70 %
2022	2,706	↓ -37 %
2021	4,323	NA

Other sources EPM		
2023	0	NA
2022	0	NA
2021	0	NA

The figures for 2021 and 2022 were adjusted due to inconsistencies that were corrected.

Note: * Other sources include receiving sources: Infiltration fields, groundwater and sea/ocean.

The data shown were consolidated from the record of information entered into the IDSOS application by the liaisons responsible for each of the companies of Grupo EPM. The input methodology consists of monthly reporting of general data such as year, month, company, business, reporting level, unit, type/category, infrastructure name, reporting officer and specific data on discharge such as type of discharge, type of treatment system, type of receiving source, receiving source name, quantity discharged m³ /period, BOD (mg/L) and TSS (mg/L).

By 2023, Grupo EPM realized the total discharge of freshwater (total dissolved solids ≤ 1,000 mg/l) to surface sources, soil and sewage in an amount of 211,140 thousand m^3 while discharges of other water (total dissolved solids > 1,000 mg/l) was 3,325 thousand m^3.

89.0 % of the group's discharges into surface sources were produced from the wastewater treatment plants of customers and users, with secondary or tertiary systems that improve the conditions of the water before it is discharged, favoring the receiving sources; of these, 27.8 % corresponded to EPM.

10.5 % of the water discharged into surface sources by the Group came from the cooling process of the thermal power generation plants, without altering the conditions of the receiving sources.

85.1 % of the group's soil discharges come from the wastewater treatment plant (WWTP) of customers and users of the subsidiary Adasa. These discharges underwent secondary treatment before being discharged. The rest comes from facilities without access to the sewage systems of the place where they are located and have their own primary or secondary domestic wastewater treatment systems, prior to discharge in accordance with regulations.

EPM's drinking water treatment plants (DWTP) have sludge treatment systems prior to discharge and are connected to the sewage system that carries discharges to the WWTP, thus improving the environmental conditions of the water sources.

In the drinking water treatment plants (DWTP), Grupo EPM has implemented systems for the treatment and management of sludge derived from the drinking water treatment process, prior to discharge into the soil and surface water sources.

The Aguas Claras WWTP, operated by Aguas Nacionales, is a treatment system to remove the pollutant load coming from a large part of the Metropolitan Area of the Aburrá Valley. Treated water is discharged into the Medellín (Aburrá) River with more than 80 % of the load removal rate. During 2023, treatment efficiency standards were maintained at the WWTP.

In 100 % of the facilities of EPM's Energy Transmission and Distribution business, domestic wastewater generated in its facilities was adequately managed through connection to municipal sewage networks and the implementation of individual management systems (septic tanks, infiltration systems).

ESSA presented a slight variation in the discharge of domestic effluents to sewage systems, due to water consumption during the replacement and modernization of existing infrastructure.

Domestic wastewater discharges (DWA) from water consumption at the CENS headquarters or infrastructure come from the discharge of toilets, showers and sinks; from the kitchen areas and siphons or basins for washing toiletries, or from washing floors and walls and watering the garden, among others. They are discharged into the municipal public sewage system where each of the sites are located and are treated by the operator of this authorized public service, through the corresponding discharge management sanitation plans (PSMV, for its acronym in Spanish).

According to the technical studies of wastewater conducted at the work centers of EPM Guatemala where this control is in place, the discharge water is of ordinary type and there is no special type of water according to Governmental Agreement 236-2006, which defines the guidelines and general recommendations to mitigate the impacts caused by the discharge of wastewater. The use of cleaning protocols for hydraulic and sanitary facilities, manholes, and especially septic tanks, as well as the implementation of semiannual monitoring to determine the quality of the discharge water and its evolution over time, were emphasized.

All of CHEC's discharges are of domestic origin and most of the facilities are connected to the sewer system; there are currently 18 treatment systems that discharge to surface water sources.

Discharges to soil from the Power Generation business apply only to EPM, since ESSA converted the discharge systems from soil to water. For the 2023 period, EPM reported 13 systems to the ground, and this slight increase was mainly due to systems of the Eastern Operations Unit that managed to gauging and additionally to a new system reported associated with the Riogrande reservoir gate.

Water discharges

Hydroelectric power generation Discharge of water, million m³

Company	2021	2022	2023	Variation 2023-2022
Grupo EPM	20,819	23,579	25,362	↑ 8 %
EPM	18,051	20,763	21,816	↑ 5 %

Note: * Effluent source data from VP Generation EPM, ADASA, CENS and ESSA.

The discharge of water for hydroelectric power generation corresponded to the same volume of water used for this productive process. Discharges did not alter the receiving sources; on the contrary, they generally help to improve some parameters. Discharges of Grupo EPM and EPM increased with respect to the previous year due to the increase in hydroelectric power generation in 2023.

GRI standard content and proprietary indicators

Content GRI 303-1	*Interaction with water as a shared resource*
Content GRI 303-3	*Water extraction*
Content GRI 303-4	*Water discharge*
Content GRI 303-5	*Water consumption*

Scope and coverage

Companies

- Public Companies of Medellín - EPM
- Aguas Regionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Hidroecológica del Teribe - HET
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa
- Afinia
- Elektra Noreste - ENSA

Geography

- Colombia – Antioquia
- Colombia - Malambo, Atlántico
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Risaralda
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Caribe

- Chile
- El Salvador
- Guatemala
- Panama

Business

- Water
- Sanitation
- Electricity
- Gas
- Waste

Back to content

Sustainability Report

2023

Management of impacts related to water and biodiversity

Grupo·epm

Management of impacts related to water and biodiversity

Prior to the development of its different projects, works and activities, Grupo EPM performs the environmental impact assessment in order to identify, qualify, economically value and determine the actions required to prevent, mitigate, correct, control or compensate the possible negative environmental impacts and enhance the positive ones. To this end, it establishes environmental management plans (EMP) and environmental management measures (EMP) to manage both the impacts that are generated towards the environment, as well as the unforeseen ones and those that the environment generates in projects, works or activities. The environmental studies carried out are the environmental restrictions analysis (ARA) in the feasibility phase of the projects, the environmental diagnosis of alternatives (DAA) and the environmental impact assessment (EIA) in the case of projects that require an environmental license, as well as the environmental management measures (MMA) for projects that are not framed in this control instrument. Environmental impact management is implemented from the early stages of construction and during the operation and decommissioning of infrastructure.

Management in 2023

During 2023, Grupo EPM contributed to the conservation of 273.24 km^2 of forest cover and natural regeneration and continued with restoration and active ecological rehabilitation actions in 17.34 km^2 . Likewise, for the management of impacts on water resources and biodiversity, it advanced compensation actions through, the company has made 99.43 % of the compensation goal and 0.87 km^2 for the present report. Additionally, it planted 70,903 individuals within the framework of other compensations, rescued and relocated 16,329 epiphytic plants and continued improving management measures to avoid wildlife accidents in power transmission and distribution networks.

In Grupo EPM, the impacts generated on water and biodiversity occur during the provision of residential public utilities, either by the construction of new infrastructure projects, execution of works and maintenance and modernization activities or operation. Some of these are changes in terrestrial and aquatic ecosystems, in the characteristics of water resources and soil, in the composition and structure of terrestrial and aquatic flora and fauna, and changes in noise levels and unpleasant odors.

Positive impacts on water and biodiversity are also identified, such as the protection and conservation of natural forests, the increase in vegetation cover for forest consolidation and biological connectivity, which provide habitat and refuge for flora and fauna species; conservation strategies for endangered species; and sanitation of water sources that improve the environmental conditions of watersheds.

The environment generates impacts on the water sources that supply reservoirs and systems for power generation and drinking water supply. Some of these impacts are: dumping of domestic and industrial wastewater, inadequate waste disposal, erosion processes, water resource quality affected by inadequate use of agrochemicals and fertilizers in agricultural, livestock, and mining activities, as well as eutrophication processes.

In order to manage impacts on reservoirs for energy generation and water supply, in 2023 we continued implementing programs such as: monitoring and follow-up of aquatic ecosystems, monitoring and follow-up of water quality and hydrobiological communities with ultrasound equipment, management of floating solid waste, management of invasive aquatic plants, and specialized water and biodiversity studies with universities.

Other actions carried out in 2023 to manage these impacts are indicated in the action Water conservation and biodiversity.

With the wastewater and solid waste management services, Grupo EPM contributes to the environmental improvement of the environment. In order to improve the provision of these services and mitigate the related impacts, operational improvement measures are implemented as well as controls and monitoring in accordance with regulations. Some of these actions were:

- By 2023 the group companies identified a greater number of positive impacts with the management advanced, but also negative impacts related to the alteration of vegetation cover, terrestrial and aquatic flora and fauna communities, flight corridors, aquatic and terrestrial ecosystems, soil quality and sound pressure. Therefore, we continued to implement actions to conserve sensitive habitats in our areas of operation through monitoring activities on our own land, and we acquired new areas in addition to protected areas or strategic ecosystems; in addition, we implemented management measures and developed voluntary actions to protect biodiversity.

- At its wastewater treatment plants, EPM continues to implement actions for odor control by reducing the impact on neighboring communities. At the San Fernando WWTP the biodigesters work efficiently and at the Aguas Claras WWTP the treatment system was able to remove more than 80 % of the BOD, COD and TSS load.
- EPM continued with the operation of the El Escobero WWTP, with which it advances in the sanitation of the San Nicolás valley and in particular of the water sources in the area of influence of the La Fe reservoir, with positive effects on the quality of natural water for the provision of drinking water.

- Emvarias carried out the treatment of discharges prior to their discharge into the surface source, coming from the leachates of the landfill. La Pradera sanitary sewage and domestic wastewater; the former with tertiary ultrafiltration treatment and the latter with secondary treatment through a septic tank; the percentage of continuity of the leachate treatment system remains above 94 %.
- EPM Guatemala carried out the quantification of the forest mass subject to impact due to transmission line maintenance activities Mixco-San Lucas in the protected area "Reserva Forestal Protectora de Manantiales, Cordillera Alux (RFPMCA)", pruning 357 trees and harvesting a total of 114.02 cubic meters of different species.

The table Impacts related to discharges and spills shows the potential impacts of effluents from Grupo EPM facilities and the management carried out during 2023.

Compensation and restoration

Within the management of impacts, Grupo EPM also implements active, passive and functional ecological restoration strategies through interaction with different stakeholders in the territory for greater sustainability of the activities.

By the year 2023 there will be an area of 273.24 km^2 in natural forests and 934.70 km^2 in vegetation cover representative of progress in natural regeneration.

As compensation activities, in 2023, 364.51 km^2 were restored, of which 17.76 km^2 were restored through active restoration with planting of native species, 285.92 km with passive restoration and 60.84 km with forest plantations. With a behavior similar to previous years, VP Generación Energía and the Hidroituango project continue to make the largest contributions. Thus, with the additions made this year, in the last three years, 930.18 km^2 have been restored, of which 37.04 were intervened through active ecological restoration, 750.99 passive and 142.18 functional. It is worth noting that the competent environmental authorities are permanently monitoring compliance of these compensations.

Restored areas and protection of forests (km^2)- Grupo EPM- 2023

Companies	Active Restoration	Passive Restoration	Functional Restoration	Total Restored Area	Natural Forest
Aguas Nacionales EPM - VP Water & Sanitation	0.04	0.09		0.12	
CENS - VP Power Transmission and Distribution	0.31			0.31	
CHEC - Energy Transmission and Distribution	1.15	14.63		15.78	52.53
EEGSA - VP Transmission and Distribution Energy	0.22			0.22	
Emvarias - VP Water and Sanitation	0.64	2.90		3.54	2.71
ENSA - VP Energy Transmission and Distribution	0.00	0.24	0.13	0.37	
EPM - VP Water and Sanitation	0.34	8.52	14.36	23.22	4.58
EPM - VP Power Generation	10.75	89.75	46.35	146.84	108.69
EPM - VP Ituango Project	4.31	169.80		174.11	85.04
Total areas restored/ Forests (km^2)	**17.76**	**285.92**	**60.84**	**364.51**	**253.55**

Source: *2023 Land Areas and Uses (Aguas Nacionales, CHEC, Emvarias and EPM).*

The restoration was classified according to the following criteria:
*Active restoration: implementation of actions for restoration, rehabilitation and/or recovery of areas through the planting of seedlings of native or mixed species (native and exotic).
*Passive restoration: areas restored through activities that promote the advance of natural regeneration.
*Functional restoration: implementation of area recovery through the planting of exotic species seedlings.

Grupo EPM carried out compensations through the purchase of new areas and ecological rehabilitation in 8.32 km^2 (both in own and third party areas) with an accumulated of 188.34 km^2 compensated, which corresponds to 100 % of the total compensation goal. The increase in accumulated compensation in relation to previous years is due to the fact that, for this year, all the compensation areas acquired for the Hidroituango project are reported (177.9 km^2).

Impacted and Compensated Areas (km²)- Grupo EPM- 2023

Companies	Area Impacted	Goal of Compensation	Compensation Reporting Period	Compensation Accumulated	% Progress
Aguas Nacionales EPM - VP Water and Sanitation	0.11	0.00	0.01	0.12	N/A
CENS - VP Power Transmission and Distribution	0.00	0.00	0.00	0.00	0 %
EEGSA - VP Transmission and Distribution Energy	2.47	0.09	0.03	0.23	33 %
EMVARIAS - VP Water and Sanitation	0.57	2.29	0.67	1.46	64 %
EPM - VP Energy Transmission and Distribution	1.24	7.79	7.42	7.52	95 %
EPM - VP Ituango Project	54.60	174.62	0.20	177.90	100 %
ENSA - VP Energy Transmission and Distribution	0.00	0.05	0.00	0.04	80 %
ESSA - Energy Transmission and Distribution	1.44	3.56	0.00	0.00	0 %
HET - VP Power Generation	0.84	1.79	0.00	1.07	60 %
Grand total	**61.27**	**190.19**	**8.33**	**188.34**	

Source: *2023 Land Areas and Uses spreadsheets (Aguas Nacionales, CENS, EEGSA, EMVARIAS, EPM, ENSA, ESSA and HET).*

Grupo EPM carried out other **strategies associated with compensation**, such as the establishment and maintenance of 70,903 trees, number which, as in the previous year, HET had the highest representation with the report of 63,471 and Hidroituango which compensated 6,000 individuals due to the area affected by the continuous operation of the spillway. The rescue and relocation of 9,054 epiphytes by the Transmission and Distribution business and 5,909 by Emvarias stand out.

Impacts related to discharges and spills

In its different projects, works and activities, **Grupo EPM performs the evaluation of direct and indirect impacts, both positive and negative**, using existing methodologies in the state of the art, including the analysis of variables such as extension, duration, reversibility, among others. The above, to identify, qualify and determine the actions required to prevent, mitigate, control, compensate and correct the possible negative environmental and social impacts and enhance the positive ones. The environmental studies performed are the analysis of environmental restrictions (ARA) in the feasibility phase of the projects, the environmental management measures (MMA), the environmental diagnosis of alternatives (DAA) and the environmental impact assessment (EIA) in accordance with the regulations. This impact management is implemented from the early stages of construction and during the operation of the infrastructure.

Grupo EPM companies manage and control discharges and discharges in accordance with the applicable regulations and carry out discharges in accordance with the authorization of the environmental authorities. In these basins the integral management of water resources is carried out for its care and improvement of environmental conditions. Monitoring was performed for the priority risk substances detailed in Resolution 631 of 2015 "Whereby the parameters and maximum permissible limit values are established for point discharges to surface water bodies and public sewage systems and other provisions are issued". The control measures were implemented by measuring the concentration of substances discharged into water bodies that affect water quality.

Impacts associated with effluents - Grupo EPM 2023

Discharges from power generation plants and discharges from WWTPs, WWTPs and others

Company	Installation	Surface source of discharge	Location in an area with water stress Water Vulnerability Index (IVH)	Possible positive or negative impacts	Impact management
EPM	Aguas Claras WWTP	Aburrá River	burrá River POMCA IVH for medium year: average IVH for dry year: average	Unpleasant odors derived from the treatment of wastewater from customers and users. Alteration in the quality of surface water resources due to the treatment of customers' and users' wastewater.	Odor measurement and control systems. Treatment and monitoring of discharges derived from the treatment of wastewater from customers and users in accordance with Resolution 0631 of 2015..
	San Fernando WWTP	Aburrá River	Aburrá River POMCA IVH for medium year: average IVH for dry year: average		
	El Retiro WWTP	Aburrá River	POMCA Rionegro IVH for medium year: average IVH for dry year: average		
	Manantiales WTP	Medellín River until June 2022 Sewerage-PTAR Aguas Claras July 2022	Aburrá River POMCA IVH for medium year: average IVH for dry year: average	There are no impacts because all discharges are treated and the pollutant load is less than that of the receiving sources; the discharge complies with the SST regulations of Resolution 631 of 2015.	All WWTPs have a sludge treatment system prior to discharge.
	PTAP Caldas	La Valeria Creek	Aburrá River POMCA IVH for medium year: average IVH for dry year: average		
	Ayurá DWTP La Cascada WTP La Montaña WTP San Cristobal WTP Barbosa WTP Villa Hermosa WTP San Antonio WTP Aguas Frías WTP Palmitas WTP	Sewer	NA		

At the WWTPs, follow-up and monitoring is performed in accordance with the parameters established in Resolution 0631 of 2015 and Resolution 1541 of 2013. At the WWTPs, TSS monitoring is performed in accordance with the provisions of Resolution 0631 of 2015.
The power generation plants follow up and monitor physicochemical parameters in accordance with the environmental authority's guidelines. The effluents are classified as fresh water, dissolved solids <1,000 mg/L.

Impacts associated with effluents - Grupo EPM 2023

Discharges from power generation plants and discharges from WWTPs, WWTPs and others.

Company	Installation	Surface source of discharge	Location in an area with water stress Water Vulnerability Index (IVH)	Possible positive or negative impacts	Impact management
EPM	CH Tasajera	Porce River	ENA 2018 IVH Average year: average IVH Dry year: average	The discharge does not generate significant impacts on the surface source; on the contrary, there is an improvement in the concentration of dissolved oxygen as follows: before discharge 1.04 mg/l and after discharge 3.81 mg/l.	Follow-up and monitoring of physicochemical parameters as indicated by the environmental authority.
	Large hydroelectric plants Porce III, Porce II, Riogrande, Guatapé, Playas, Troneras.	Porce River	ENA 2018 IVH Average year: average IVH Dry year: average	Decrease in the concentration of some nutrients and other parameters before and after the reservoir. This impact is positive to the extent that the concentrations of the contributing basins lead to eutrophication in the systems and therefore the reservoirs function as tertiary wastewater treatment.	
	La Sierra Thermoelectric Power Plant	Magdalena River	ENA 2018 IVH Average year: low IVH Dry year:average	No significant impacts, temperature monitoring is performed..	

At the power generation plants, physicochemical parameters are monitored and tracked in accordance with the environmental authority's guidelines. The effluents are classified as fresh water, dissolved solids <1,000 mg/L.

Impacts associated with effluents - Grupo EPM 2023

Discharges from WWTP, WWTP and others.

Company	Installation	Surface source of discharge	Location in an area with water stress Water Vulnerability Index (IVH)	Possible positive or negative impacts	Impact management
Regional Waters	Turbo WTP	Turbo River	POMCA Medium IVH in normal conditions High IVH in dry season	Possible alterations in the quality of the receiving source due to discharges derived from the drinking water treatment process.	Characterization of sludge derived from the drinking water treatment process and discharges. Drying beds at Mutatá WTP and San Jerónimo WTP.
	PTAP Apartadó	Apartadó River			
	Carepa DWTP	Carepa River			
	PTAP Chigorodó	Chigorodó River			
	Mutatá WWTP	Mutatá River	POMCA Average IVH in normal conditions Average IVH during dry season		
	Santa Fe de Antioquia WTP	Discharges from the WWTP go to the oxidation lagoon of the Santa Fe de Antioquia WWTP.	ENA 2018 IVH low in normal conditions IVH medium in dry year		
	Olaya DWTP	Quebrada La Barbuda - Cauca River	ENA 2018 IVH low in normal conditions IVH medium in dry year		
	Sucre WTP	La Tahamí River	ENA 2018 IVH low in normal conditions IVH medium in dry year		
	Sopetrán WWTP	Sopetrana - Cauca River	PORH Q. La Sopetrana Average IVH in normal conditions Average IVH in dry year		
	San Jeronimo WTP	Quebrada La Muñoz - Cauca River	PORH Río Aurra IVH low in normal conditions IVH medium in dry year		

At WWTPs, follow-up and monitoring is performed in accordance with Resolution 0631 of 2015 and Resolution 1541 of 2013. At WWTPs, monitoring is performed in accordance with Decree 1076 of 2015 and Resolution 0631 of 2015.
The effluents are freshwater category, dissolved solids <1,000 mg/L.

Impacts associated with effluents - Grupo EPM 2023

Discharges from WWTP, WWTP and others.

Company	Installation	Surface source of discharge	Location in an area with water stress Water Vulnerability Index (IVH)	Possible positive or negative impacts	Impact management
Regional Waters	Las Yuquitas oxidation ponds Dsitrito de Turbo	Caño Higinio - Sea of Urabá	NA	Unpleasant odors derived from the treatment of wastewater from customers and users.	Odor monitoring with dynamic olfactometry. Planting of living barriers around lagoons
	Santa Fe de Antioquia WWTP	La Maquea - Cauca River	ENA 2018 Low IVH under normal conditions Average IVH in dry year	Unpleasant odors derived from the treatment of wastewater from customers and users. Possible alteration of the quality of the receiving surface source due to discharge from the treatment of wastewater from clients and users.	Measurement of odors Use of biodegradable chemicals to reduce odor generation. Treatment and monitoring of discharges derived from wastewater treatment of customers and users in accordance with Resolution 0631 of 2016.

At WWTPs, follow-up and monitoring is performed in accordance with Resolution 0631 of 2015 and Resolution 1541 of 2013. At WWTPs, monitoring is performed in accordance with Decree 1076 of 2015 and Resolution 0631 of 2015.
The effluents are freshwater category, dissolved solids <1,000 mg/L.
.

Impacts associated with effluents - Grupo EPM 2023

Discharges from WWTP, WWTP and others.

Company	Installation	Surface source of discharge	Location in an area with water stress Water Vulnerability Index (IVH)	Possible positive or negative impacts	Impact management
Aguas de Malambo	PTAP Tesoro - Sludge Plant	Malambo Swamp	ENA 2018 IVH average year Very high	Possible alteration of the water quality of the receiving source due to sediment contribution from the water discharged from the washing and maintenance of the plant.	Recirculation of water from filter backwashing Sludge dewatering by drying bed.
	Concorde WTP				Sludge dewatering by filter press.
	EBAR			Alteration of the water quality of the receiving source due to discharged wastewater Unpleasant odors due to the treatment of wastewater from client users Affecting the quality of life of the population associated with the marsh Collection of all the municipality's wastewater discharge points in a single place.	Joint operation of the La Milagrosa WWTP between the municipality of Malambo and Aguas de Malambo as of November 2022 and in the process of stabilization for proper wastewater management and to reduce the pollutant load discharged into the swamp.

At WWTPs, follow-up and monitoring is performed in accordance with Resolution 0631 of 2015 and Resolution 1541 of 2013. At WWTPs, monitoring is performed in accordance with Decree 1076 of 2015 and Resolution 0631 of 2015.
The effluents have the category of Fresh Water, dissolved solids <1,000 mg/L.

Impacts associated with effluents - Grupo EPM 2023

Discharges from generation plants and discharges from WWTPs and others.

Company	Installation	Surface source of discharge	Location in an area with water stress Water Vulnerability Index (IVH)	Possible positive or negative impacts	Impact management	Indicate priority substances of concern
Aguas del Oriente	Fafa los salados	Pantanillo River	POMCA Rionegro IVH for medium year: average IVH for dry year: average	Possible alterations in the quality of the receiving source due to the treatment of wastewater from customers and users.	Maintenance, characterization, diagnosis.	The discharge complies with the recommended values for settleable solids, fats and oils and grease and suspended solids in terms of permissible limits according to Resolution 631 of 2015.
	Fafa Villa Elena I	Pantanillo River				The temperature and pH range found at the sampling points are within acceptable limits according to Resolution 631 of 2015.
	Fafa Villa Elena II	Pantanillo River				
EMVARIAS	Planta de tratamiento de lixiviados	Porce River	ENA 2018 IVH Average year: Average I VH Dry year: Average	Alteration in the quality of surface water resources.	The leachate treatment plant mitigates the impact that would be caused by the direct discharge of leachate into the river.	Characterization of discharges in accordance with the provisions of Resolution 0631 of 2015.

At WWTPs, follow-up and monitoring is performed in accordance with Resolution 0631 of 2015 and Resolution 1541 of 2013. At WWTPs, monitoring is performed in accordance with Decree 1076 of 2015 and Resolution 0631 of 2015.
The effluents have the category of Fresh Water, dissolved solids <1,000 mg/L.

Impacts associated with effluents - Grupo EPM 2023

Discharges from generation plants and discharges from WWTPs and others.

Company	Installation	Surface source of discharge	Location in an area with water stress Water Vulnerability Index (IVH)	Possible positive or negative impacts	Impact management	Indicate priority substances of concern
Essa	Central Palmas	Not reported	ENA 2018 Average year: average Dry year: high	Improvement of physicochemical characteristics of the water sources where turbined waters are discharged by the removal of floating solids. Possible changes in the hydrobiological properties of the stretch where the water is collected and returned to its natural course.	Accepted methodologies, standardized or recommended by the competent environmental authority, qualitative and quantitative interaction tables (matrices) are chosen. Controlled outflows. Continuous sediment flushing. Fish compensation. Treatment of domestic wastewater.	Follow-up and monitoring of physicochemical parameters as indicated by the environmental authority.
	La Cascada Power Plant	Fonce River	ENA 2018 Average year: low Dry year: average			
CHEC	Sancancio	Chinchiná River	ENA 2018 IVH Medium year: medium IVH Dry year: high	There is no evidence of negative impacts from discharges of turbined water. Alteration in surface water quality due to discharge from the WWTP of domestic wastewater from the Ìnsula plant.	Environmental management plan endorsed by the National Environmental Licensing Authority. Subprogram: domestic wastewater management. Optimization of the WWTP with the start-up of the wetland, with characterization results complying with regulations.	Follow-up and monitoring of physicochemical parameters as indicated by the environmental authority.
	Intermediate					
	Municipal					
	Guacaica					
	Ínsula	Campoalegre River	ENA 2018 IVH Medium year: low IVH Dry year: high			
	Esmeralda	Cauca River	ENA 2018 IVH Average year: average IVH Dry year: high			
	San Francisco					

Follow-up and monitoring of physicochemical parameters is performed at power generation plants in accordance with the indications of the environmental authority. At WWTPs, follow-up and monitoring is performed in accordance with Resolution 0631 of 2015 and Resolution 1541 of 2013.
The WWTPs are monitored in accordance with Decree 1076 of 2015 and Resolution 0631 of 2015. Effluents are categorized as fresh water, dissolved solids <1,000 mg/L.

GRI standard content and proprietary indicators

Content GRI 303-2	***Management of impacts related to water discharge***
Content GRI 303-4	***Water discharge***
Content GRI 304-2	***Significant impacts of activities, products and services in biodiversity***

Scope and coverage

Companies

- *Public Companies of Medellín - EPM*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Elektra Noreste - ENSA*
- *Hidroecológica del Teribe - HET*
- *Electrificadora de Santander - ESSA*
- *Centrales Eléctricas del Norte de Santander - CENS*
- *EPM Guatemala*
- *Aguas Regionales EPM*
- *Aguas de Malambo*
- *Empresas Varias de Medellín - Emvarias*
- *Aguas del Oriente*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia - Norte de Santander*
- *Colombia – Santander*
- *Colombia - Malambo, Atlántico*
- *Guatemala*
- *Panama*

Business

- *Water*
- *Sanitation*
- *Electricity*

‹ Back to content

Sustainability Report

2023

Employee wellbeing and adaptability

Grupo·epm

Table of contents

Material issues

p.

Employee wellbeing and adaptability 657

- Employee wellness and benefits 663
- Quality of life 670
- Employee performance 676
- Training and development 681
- Retirees and pensioners 688
- Trade union organizations 693
- Employee headcount 698
- Occupational health and safety 709
- Personnel selection 716

Employee wellbeing and adaptability

It brings together the balance between work, personal and family life, health and safety at work, competitive and equitable salary and non-economic remuneration, as well as the ability to adapt both collaborators and the Organization to new challenges in the processes, organization, technologies, culture and information, as demanded by the strategy.

The disruption caused by the COVID-19 pandemic made it even more obvious that in a volatile, uncertain, complex and ambiguous world, adaptability and especially resilience become a strategic asset for competitiveness.

Approaches

Adaptability: responsiveness of collaborators, including management, to complex and crisis situations in order to come out on top; and the Organization's ability to act in changing and therefore continuously revisable scenarios, as well as the strengthening of co-inspiration and co-creation discussions for the materialization of common projects.

Personal and professional growth: practices, policies, processes, models and actions that contribute to personal and professional development.

Clarity and organization: practices, policies, processes, models and actions that contribute to personal and professional development.

Sustainable Development Goals

Related stakeholders

- *Customers and users*
- *State*
- *Owner*
- *People of Grupo EPM*
- *Investors*
- *Partners*

Contents of GRI standards and corporate indicators

Content GRI 2-7	*Employees*
Content GRI 2-30	*Collective bargaining agreements*
Content GRI 3-3	*Management of material issues*
Content GRI 401-1	*New employee hires and staff turnover*
Content GRI 401-2	*Benefits for full-time employees not provided to part-time or temporary employees*
Content GRI 401-3	*Parental leave*

Contents of GRI standards and corporate indicators

Content GRI 403-2	Types of accidents and accident frequency rates, occupational diseases, lost days, absenteeism and number of deaths due to occupational accidents or occupational diseases
Content GRI 403-3	Workers with a high incidence or high risk of diseases related to their activities
Content GRI 403-4	Health and safety issues addressed in formal agreements with labor unions
Content GRI 404-1	Average hours of training per year per employee
Content GRI 404-2	Programs to improve employee skills and transition assistance programs
Content GRI 404-3	Percentage of employees receiving regular performance and professional development evaluations
Content GRI 405-1	Diversity in governing bodies and employees
EU14	Programs and processes to ensure the availability of skilled manpower
EU15	Percentage of employees eligible to retire in the next 5 and 10 years, broken down by category and region
EU16	Policies and requirements concerning the health and safety of workers, contractors and subcontractors
EU17	Workdays of employees of contractors and subcontractors involved in construction, operation and maintenance activities
EU18	Percentage of contractors and subcontractors that have undergone relevant health and safety training
EPM-31	Measurement of quality of life - Psychosocial risk

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Hidroecológica del Teribe - HET
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Risaralda
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - El Caribe

- El Salvador
- Guatemala
- México
- Panamá

Business

- Water
- Sanitation
- Electricity
- Gas
- Waste

‹ Back to content

Sustainability Report

2023

Employee wellness and benefits

Grupo·epm

Employee wellness and benefits

Grupo EPM promotes the quality of life of its employees and their families *through monetary and non-monetary benefits, with programs and activities to balance their family and work life. In this way, the Organization promotes spaces for support, recreation, sports, social and cultural development, so as to consolidate the sense of belonging and strengthen the corporate culture for the fulfillment of organizational objectives.*

Management in 2023

The **monetary benefits** represented by educational aids, training courses and health aids, among others, and non-monetary benefits such as corporate events, recreational, sports and cultural activities, which are granted to the employees of EPM and the Group's companies, contribute to the development and strengthening of their well-being and that of their family group.

During 2023, there was an increase of 16.5% with respect to 2022, in the use of benefits and the request for monetary contributions by EPM employees and their beneficiaries, and 31.4% more in cash. This increase is explained by the increase in the amounts for health assistance and the increase in the coverage percentage for cultural and sports training courses included in the agreements, which were formalized in 2023.

Benefits delivered

epm®

COP
50,447
million

Grupo·epm

COP
99,242
million

During 2023, programs and activities were carried out to contribute to the well-being of employees, such as EPM Contigo, a program that seeks to connect people, based on their emotions and needs, with a close company that values and appreciates their contribution to the organizational purpose. This program is comprised of four lines of action:

- **I take care of my mind, body and heart:** activities related to the care of emotional, physical and psychosocial aspects
- **I learn new ways of working:** initiatives that challenge the normality and dynamics of remote work
- **I connect with life:** promotion of activities to balance work, personal and family life
- **I connect with my company:** promotion of emotional connection between employees and the company and strengthening of the conversational capital

Activities, programs and talks aimed at strengthening work-life balance were furthered promoted.

Persons benefited and value of work welfare programs Grupo EPM (COP million)

Company	2021		2022		2023	
	# of People	Value	# of People	Value	# of People	Value
EPM	19,717	33,503	42,811	38,396	**40,955**	**50,447**
Aguas Regionales	249	599	252	724	**274**	**842**
Aguas Nacionales	245	241	248	144	**251**	**169**
Aguas de Oriente	0	0	0	0	**18**	**N.D.**
Aguas de Malambo	82	50	74	54	**83**	**111**
Emvarias	3,461	1,842	4,614	2,471	**4,037**	**2,200**
CHEC	3,046	10,621	3,026	14,582	**2,938**	**9,674**
ESSA	4,960	635	4,444	982	**4,990**	**1,158**
CENS	663	3,115	655	3,963	**664**	**5,106**

Persons benefited and value of work welfare programs Grupo EPM (COP million)

Company	2021		2022		2023	
	# of People	Value	# of People	Value	# of People	Value
EDEQ	1,128	1,080	1,096	1,192	**500**	**1,288**
Afinia	1,299	9,890	1,233	12,134	**1,276**	**14,951**
ENSA	585	5,511	613	7,150	**602**	**6,332**
Delsur	348	4,053	354	7,162	**394**	**5,639**
EPM Guatemala	786	3,778	808	4,833	**799**	**3,614**
Adasa	489	3,359	517	5,842	**568**	**5,273**
Ticsa	563	853	663	1,429	**1,152**	**1,930**
Total	**37,621**	**79,130**	**61,408**	**101,058**	**59,541**	**108,734**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

The number of people who benefited is equal to the sum of those who attended the different programs; the same person may have attended different events.

In most of the Group's companies, welfare activities and programs and benefit plans covered the family group of employees, thus fostering integration, family unity and a sense of belonging to the organizations.

Employees who used benefits - Grupo EPM (%)

Company	2021	2022	2023
EPM	90 %	92 %	**94,1 %**
Aguas Regionales	100 %	100 %	**100 %**
Aguas Nacionales	100 %	95 %	**95 %**
Aguas de oriente	N.A.	N.A.	**100 %**
Aguas de Malambo	79 %	100 %	**100 %**

Employees who used benefits - Grupo EPM (%)

Company	2021	2022	2023
Emvarias	100 %	100 %	**100 %**
CHEC	99 %	99 %	**99 %**
ESSA	100 %	100 %	**100 %**
CENS	100 %	100 %	**100 %**
EDEQ	100 %	100 %	**100 %**
Afinia	100 %	100 %	**100 %**
ENSA	100 %	100 %	**100 %**
HET	N.A.	N.A.	**95 %**
Delsur	100 %	100 %	**100 %**
EPM Guatemala	100 %	100 %	**100 %**
Adasa	100 %	100 %	**100 %**
Ticsa	100 %	100 %	**100 %**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Permits and licenses

Permits and licenses EPM

Item	Women			Men		
	2021	2022	2023	2021	2022	2023
Extra-legal leave for childbirth or miscarriage	0	0	**0**	90	102	**99**
Statutory leaves	50	67	**38**	78	99	**93**
Returned from maternity leave	94	47	**63**	N.A.	N.A.	**N.A.**
Returned from paternity leave	N.A.	N.A.	**N.A.**	51	78	**96**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Permits and licenses Grupo EPM

Item	Women			Men		
	2021	2022	2023	2021	2022	2023
Extra-legal leave for childbirth or miscarriage	25	15	**8**	123	136	**131**
Statutory leaves	119	136	**104**	153	232	**206**
Returned from maternity leave	156	103	**124**	N.A.	N.A.	**N.A.**
Returned from paternity leave	N.A.	N.A.	**N.A.**	117	187	**189**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

In 2023, 99 paternity leaves were granted. In the case of male personnel, EPM grants four additional days of paternity leave in addition to the statutory leave.

Ninety-six percent of staff on maternity or paternity leave still work in the Organization one year after returning to work.

2023, capital injections were made to the housing funds, as agreed in the collective bargaining agreements, as follows: COP 15 billion to Sintraemsdes and COP 10 billion to Sinpro; this increased the availability of housing loan approvals.

Contents of GRI standards and corporate indicators

Content GRI 401-2	***Benefits for full-time employees not provided to part-time or temporary employees***
Content GRI 401-3	***Parental leave***
Content GRI 404-2	***Programs to improve employee skills and transition assistance programs***

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Hidroecológica del Teribe - HET
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Risaralda
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - El Caribe

- Chile
- El Salvador
- Guatemala
- México
- Panamá

Business

- Water
- Sanitation
- Electricity
- Gas
- Waste

Back to content

Sustainability Report 2023

Quality of life

Grupo·epm

Quality of life

Different actions are carried out to mitigate occupational risks, control accidents and prevent illnesses.

*The **measurement of quality of life and psychosocial risk,** as part of the Occupational Health and Safety Management System (OHSMS), continues to serve as a tool to provide information to focus efforts in the management of safe and healthy work environments.*

In 2022 the Ministry of Labor updated the regulations on psychosocial risk by means of Resolution 2764, which adopted the Battery of Instruments for the evaluation of Psychosocial Risk Factors, the General Technical Guide for the promotion, prevention and intervention of psychosocial factors and their effects on the working population and their specific protocols, and issued other provisions. This change implied that the measurement will continue to be done every two years when the risk levels are low and the protocols that apply to the organization, such as bereavement, labor harassment, acute stress, post-traumatic stress, among others, must be implemented.

Management in 2023

In 2023, Quality of Life was not measured, since the standard indicates that, if the risk level is low, it can be evaluated every two years.

During 2023, we provided support to work teams aimed at strengthening psychosocial risk management and the promotion of safe and healthy work environments according to the 2022 measurement.

Different **training, awareness and psycho-education activities** were carried out, striving to care for the quality of life of employees and their families and promoting mental health care in the EPM Contigo program.

- The following are **some of the activities carrier out:**
- 255 individual psychosocial counseling sessions.

- "Mental Health and Wellness Week" in which 3,700 people and 18 partners participated with different initiatives such as conferences, sports and experiential learning activities. Activities were also carried out to strengthen the "Apoyo de Compañeros" initiative, which was transformed into "Gente EPM ciudando Gente EPM," which provided spaces for employees to share their experiences and knowledge on topics of interest related to mental health. A stand was set up at the "Tú Cuentas" conferences held at the Company's headquarters.
- We promoted spaces for training in mental health, stress management, prevention of psychoactive substance abuse and other topics related to psychosocial risk management, with the participation of 4,366 employees.
- Nine meetings were held for emotional support in times of grief (Manos Cálidas) with the participation of 388 attendees.

Mental Health and Wellness Week

From the Quality of Life program

# of participants

3,700

Individual Psychosocial Counseling

From the Quality of Life program

# of advice sessions

255

Training Sessions

# of attendees

4,366

% Employees surveyed - Quality of life - Grupo EPM (Colombia)

Company	2021	2022	2023
EPM	N.A.	80.94 %	**N.A.**
Aguas del Oriente	N.A.	95 %	**N.A.**
Aguas Nacionales	N.A.	83 %	**N.A.**
Aguas Regionales	N.A.	0 %	**98.8 %**
CHEC	N.A.	85.1 %	**N.A.**
ESSA	N.A.	81 %	**N.A.**
CENS	N.A.	0 %	**87 %**
EDEQ	N.A.	96 %	**N.A.**
Afinia	N.A.	82 %	**N.A.**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Quality of Life Survey Results - Grupo EPM (Colombia)

Company	2021	2022	2023
EPM	N.A.	66.89	**N.A.**
Aguas del Oriente	N.A.	50	**N.A.**
Aguas Nacionales	N.A.	50	**N.A.**
Aguas Regionales	N.A.	N.A.	**23.5**
CHEC	N.A.	68.1	**N.A.**
ESSA	N.A.	67.33	**N.A.**
CENS	N.A.	N.A.	**67.4**
EDEQ	N.A.	66	**N.A.**
Afinia	N.A.	25.6	**N.A.**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Note: Applies only to companies in Colombia. CENS was not measured in 2022 because it did not manage to implement the application; the management was based on the 2020 measurement.

The measurement scale ranges from 0 to 100, where 100 is low or no risk and 0 is high or very high.

Quality of Life Survey Results - EPM (%)

Item	2021	2022	2023
Role clarity	N.A.	51.21 %	N.A.
Social relations at work	N.A.	57.91 %	N.A.
Leadership	N.A.	49.96 %	N.A.

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

In 2022, EPM registered a low level of in-workplace, off-workplace and total psychosocial risk.

All vice presidencies showed results above 50% in the low risk level and no in-workplace risk, with the exception of the Risk Vice-Presidency, which scored 48.33%, and therefore undertook intervention actions.

The four components (Control, Leadership, Demands, Rewards) showed very similar results in the last two measurements. Rewards went from 67.08% to 65.51%.

The components control and autonomy, with 48.92%, development opportunity, with 48.82% and leadership characteristics, with 49.96%, are below 50% at the low and no risk level.

2,217 employees, equal to 27%, reported a high – very high level of risk in stress-related responses.

As part of EPM Contigo, we provided support to the work environment through ECOS (Conscious and Healthy Environments methodology) for individual and collective strengthening, focusing on population groups with higher levels of risk.

Quality of life - Grupo EPM

Item	2021	2022	2023
Employees surveyed	0	10,114	1,048

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Note: Applies only to companies in Colombia.

Contents of GRI standards and corporate indicators

EPM-31 *Measurement of quality of life and psychosocial risk*

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Central Hidroeléctrica de Caldas - CHEC
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Electrificadora de Santander - ESSA
- Afinia
- Aguas Nacionales EPM
- Aguas Regionales
- Aguas del Oriente

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Risaralda
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - El Caribe

Business

- Water
- Sanitation
- Electricity
- Gas

Back to content

Sustainability Report

2023

Employee performance

Grupo·epm

Employee performance

Performance management *in EPM evolves to leverage the achievement of the strategic direction, with its elements of organizational purpose, strategic focuses, organizational capabilities system and strategic, tactical and operational planning.*

The individual and collective contributions of individuals and teams, the result and impact indicators, the key results with their respective metrics and indicators are established through talks, all this in order to achieve objectives that are mostly interdependent between areas and strengthen daily development through feedback, recognition and collaborative construction.

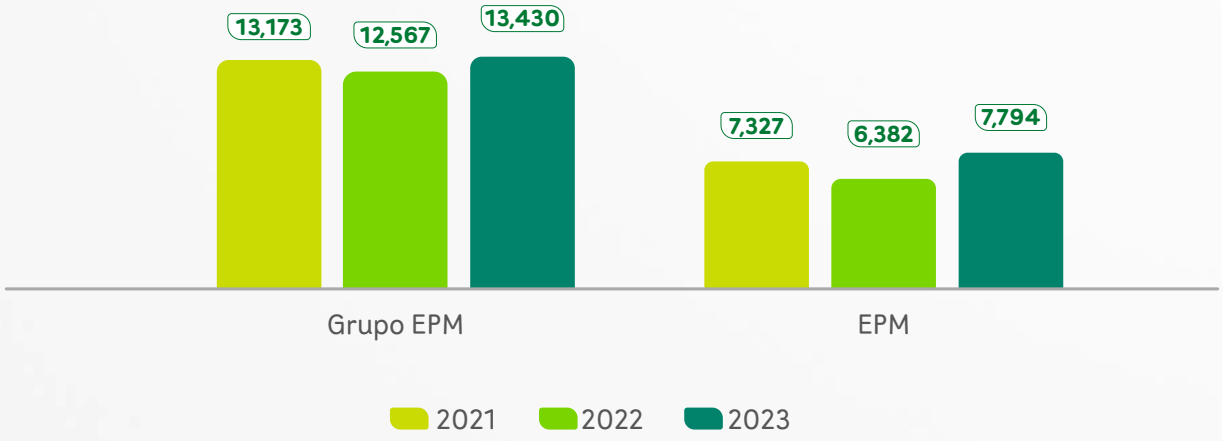
Performance management leverages cultural evolution and promotes the common good, collaborative work, conversation for networking and co-responsibility; thus, it is connected with planning and continuous monitoring processes.

Management in 2023

The performance model was implemented for all employees of EPM, ESSA, CHEC and for a pilot population of CENS and EDEQ, which led to the coordination of planning, monitoring and improvement processes for performance management and human development.

The new skill model was stabilized through talks for feedback and recognition.

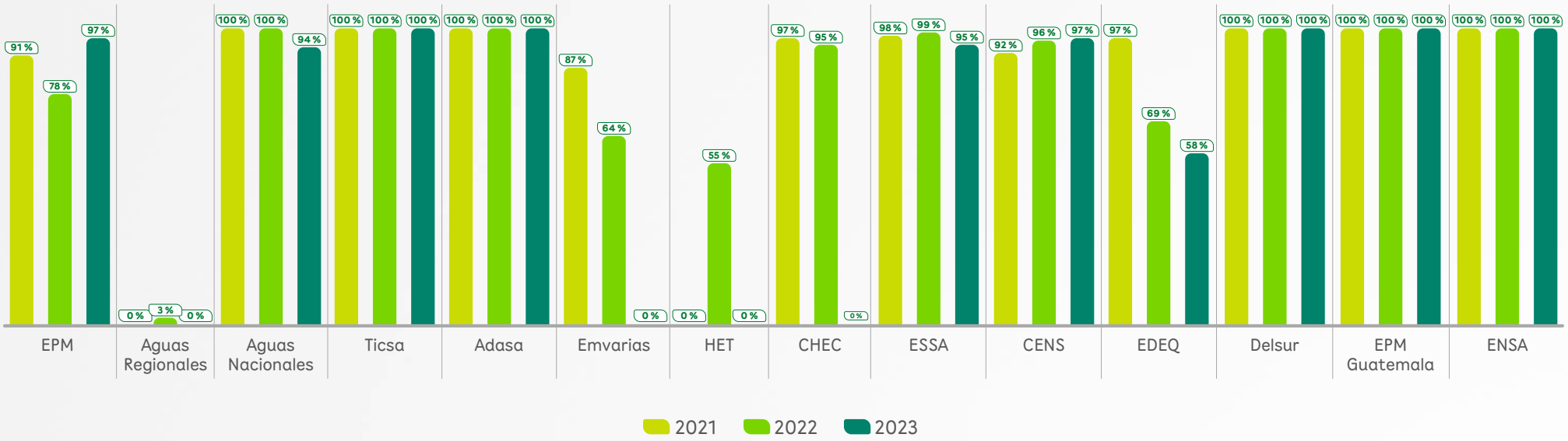
Number of employees with performance evaluations in EPM and Grupo EPM



The benefits of the performance model were shared with the affiliates in Colombia that do not yet participate and they were invited to join as of the 2023 annual cycle. Some international affiliates have their own performance and development process, so benchmarking sessions were held to raise awareness on the model and to adapt it to the skill model.

In EPM, the results of the performance process did not take into account people with: medical leaves (that did not allow them to work for at least 90 days during the year); permanent union leaves, leaves of absence, suspensions or commissions.

Percentage of employees with performance evaluation in EPM and Grupo EPM



Contents of GRI standards and corporate indicators

Content GRI 404-3 — ***Percentage of employees receiving regular performance and professional development evaluations***

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Aguas Nacionales EPM*
- *Aguas del Oriente*
- *Aguas Regionales EPM*
- *Empresas Varias de Medellín - Emvarias*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Electrificadora de Santander - ESSA*
- *Empresa de Energía del Quindío - EDEQ*
- *Centrales Eléctricas del Norte de Santander - CENS*
- *Aguas de Antofagasta - Adasa*
- *Elektra Noreste - ENSA*
- *EPM Chile*
- *EPM Guatemala*
- *Distribuidora de Electricidad del Sur - Delsur*
- *Hidroecológica del Teribe - HET*
- *Tecnología Intercontinental -Ticsa*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Quindío*
- *Colombia – Risaralda*
- *Colombia – Santander*
- *Colombia - Norte de Santander*

- *Guatemala*
- *Chile*
- *México*
- *El Salvador*
- *Panamá*

Business

- *Water*
- *Sanitation*
- *Electricity*
- *Gas*

Back to content

Sustainability Report 2023

Training and development

Grupo·epm

Training and development

*In Grupo EPM, **development management** is aimed at consolidating organizational capabilities and developing or strengthening people's skills within the framework of the elements of the Human Development Model, which is based on co-responsibility.*

***Development management** is carried out through an approach that includes: exposure (70%): learning by doing; support (20%): learning with others, through formal and informal talks and feedback from superiors and tutors; guided training (10%): learning from others, through formal and informal programs of self-education, training, coaching and knowledge refreshment that combine being, knowledge and know-how, which boost the EPM University and its schools.*

Magement in 2023

The **Cultural Evolution Plan** was implemented in all drivers: conscious leadership, conversational capital, ways of working, health and well-being, ethical management, Diversity, Equity and Inclusion (DEI) and change management.

At the **EPM University Leadership School**, training programs were carried out for directors, managers, operation leaders and project leaders, and the training of other audiences was continued through the spaces reserved in the other schools

of the EPM University. Specifically, the actions planned by the Gender Equity program achieved a greater balance in the participation of men and women in training events.

Throughout 2023, several trainings were carried out associated with skills and knowledge mapped as critical, key and general, sufficient and insufficient; required for the proper development of organizational processes.

The Succession Mechanism was implemented, one of the actions defined to mitigate the materialization of risk 5 "Difficulties in the management of human talent for the performance of the activities required in the business", aimed at mitigating the loss of critical or key knowledge from soon-to-retire personnel, and which makes the implementation of generational replacement plans viable; also, to reduce the concentration of knowledge that may affect the development of core activities of the Organization and to facilitate the implementation of knowledge transfer plans.

Training and development - Grupo EPM

Item	2021	2022	2023
Learning events held	2,544	3,278	**4,771**
Learning events held	44	72	**72**
Grants awarded	39	65	**57**
Approved travel abroad for training	28	60	**210**
Value of the organizational learning plan	31,553	67,338	**87,656**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

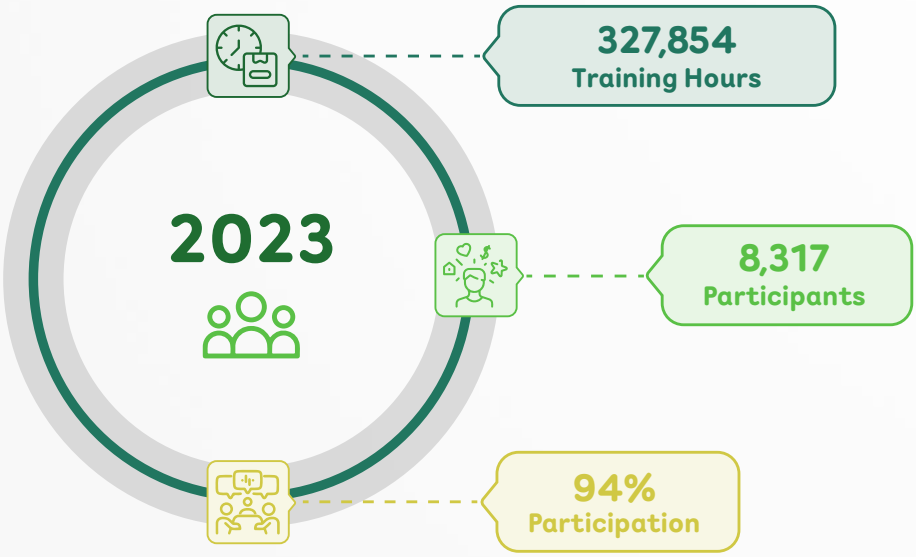
Note: The value of the Organizational Learning Plan is stated in COP million.

Training and development - EPM

Item	2021	2022	2023
Learning events held	577	706	**858**
Approved travel abroad for training	16	22	**61**
Value of the organizational learning plan	1,423	3,486	**4,251**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Note: The value of the Organizational Learning Plan is stated in COP million.



Training hours - average per employee - Grupo EPM

Company	2021	2022	2023
EPM	22	29	39
Aguas del Oriente	6	115	64
Aguas Regionales	2	2	1
Aguas Nacionales	6	1	1
Aguas de Malambo	1	1	0
Ticsa	4	5	5
Adasa	18	23	29
Emvarias	1,6	3	7
HET	35	54	12
CHEC	37	47	58
ESSA	51	61	64
CENS	45	30	19
Afinia	9	78	26
EDEQ	53	47	37
Delsur	51	45	48
EPM Guatemala	145	118	62
ENSA	31	30	23

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Training and development – EPM

Company		2021	2022	2023
Training hours	Managers	38	39	**57**
	Professionals	33	42	**50**
	Assistants, technicians and technologists	15	23	**36**
	Support	11	9	**22**
Training hours - average per employee		**22**	**29**	**39**
Learning events held		577	706	**858**
Approved postgraduate studies		0	0	**9**
Grants awarded		0	0	**0**
Approved travel abroad for training		16	22	**61**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Programs related to the EPM University schools were strengthened: Leadership, Corporate and Technical Business, and especially, the Digital and Innovation School, with the execution of skill building programs: Digital DNA and transformative innovation.

There is a qualification path for positions, which includes: corporate orientation, specific orientation and recurrent training and retraining as applicable.

The knowledge map that identifies and classifies knowledge and expert employees was updated and strengthened in order to take advantage of it internally and capitalize on EPM's know-how. Progress was made in the holding of training events to develop and/or strengthen the knowledge identified as critical and insufficient.

Progress was made in the incorporation of Upskilling and Reskilling practices as a strategy to build skills and consolidate new knowledge to meet the requirements of the constantly changing environment, based on learning as a basis for adaptation and evolution.

During the period, 294 employees close to their pension age were identified, of which 26 were identified as having key and/or critical knowledge, and therefore activities were carried out to ensure the transfer of knowledge. This is a practice that has been carried out in EPM for several years and that generates value for its stakeholders, which is why it continues to be performed and is a focus of development management.

In addition, a pilot program was designed and implemented to apply the Succession Mechanism for critical operational safety positions and, thus, ensure the transfer of knowledge in the businesses and mitigate the risk associated with the exit of human talent.

Budget execution (%) in performance management - Grupo EPM

Company	2021	2022	2023
EPM	64 %	83 %	**94 %**
Aguas del Oriente	30 %	50 %	**80 %**
Aguas Regionales	14 %	61 %	**30 %**
Aguas Nacionales	N.A.	46 %	**64 %**
Aguas de Malambo	80 %	85 %	**100 %**
Ticsa	96 %	100 %	**100 %**
Adasa	77 %	103 %	**106 %**
Emvarias	83 %	49 %	**66 %**
HET	100 %	100 %	**100 %**
CHEC	82 %	100 %	**100 %**
ESSA	84 %	124 %	**181 %**
CENS	100 %	100 %	**100 %**
EDEQ	95 %	169 %	**164 %**
Afinia	68 %	29 %	**52 %**
Delsur	100 %	100 %	**100 %**
EPM Guatemala	54 %	61 %	**73 %**
ENSA	100 %	100 %	**100 %**

The Group's affiliates focused their development plans on strengthening skills, technical knowledge, occupational health and safety training, new work dynamics, diversity management, cultural evolution, leadership, among others; some of the affiliates emphasized the training of their groups of delegates to participate in the negotiations of labor agreements with workers' unions to facilitate reaching agreements between the

claims of some and the possibilities of others; other companies focused on strengthening the conversational skills of their employees. Priority was given jointly to the consolidation of organizational capabilities and operational excellence and to the development of people's adaptability and innovation.

Contents of GRI standards and corporate indicators

Content GRI 404-1	***Average hours of training per year per employee***
Content GRI 404-2	***Programs to improve employee skills and transition assistance programs***

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Aguas Regionales EPM*
- *Aguas Nacionales EPM*
- *Aguas del Oriente*
- *Aguas de Malambo*
- *Empresas Varias de Medellín - Emvarias*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Electrificadora de Santander - ESSA*
- *Empresa de Energía del Quindío - EDEQ*
- *Centrales Eléctricas del Norte de Santander - CENS*
- *Afinia*
- *EPM Guatemala*
- *EPM Chile*
- *Elektra Noreste - ENSA*
- *Tecnología Intercontinental -Ticsa*
- *Aguas de Antofagasta - Adasa*
- *Hidroecológica del Teribe - HET*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Quindío*
- *Colombia – Santander*
- *Colombia - Norte de Santander*
- *Colombia - El Caribe*
- *Colombia - Malambo, Atlántico*

- *Chile*
- *El Salvador*
- *Panamá*
- *México*
- *Guatemala*

Business

- *Electricity*
- *Gas*
- *Water*
- *Sanitation*
- *Waste*

‹ Back to content

Sustainability Report

2023

Retirees and pensioners

Grupo·epm

Retirees and pensioners

The business group implements different strategies to foster close relationships with this subgroup of interest, including social outreach activities that include psychological and spiritual counseling, as well as full adulthood (program for retirees, pensioners and pre-pensioners).

Management in 2023

The link with retirees and pensioners is permanently strengthened by performing innovative activities that contribute to the improvement of their quality of life, well-being, personal growth and the optimization of their free time, through educational, cultural and recreational alternatives that promote healthy lifestyle habits.

For the year 2023, through the **retirees and pensioners program**, activities such as yoga, dance, painting, vegetable gardens and crops, workshops with the EPM Library-Foundation and talks on mental health were offered. 3,081 people participated in these activities. At the end of the year, the annual meeting of Retirees and Pensioners was held with 311 participants.

In 2023, the implementation of the **Vital program** was aimed at facilitating the participants' transition to their new personal reality in order to reduce the impact on their different spheres (social, spiritual, emotional, intellectual and physical).

For the development of the Vital program, a population of 1,025 employees was invited; different talks, workshops and internal affairs plenary sessions were held with the participation of 888 people.

- **Population 1** (2023-2024): personnel less than 2 years away from retirement, with 76 attendees.
- **Population 2** (2027):): personnel less than 5 years away from retirement, with 110 attendees.
- **Population 3** (2033): personnel less than 11 years away from retirement, with 56 assistants.

Retirees and pensioners - Grupo EPM

Item	2021	2022	2023
Pensioners in the year	1,008	1,249	**1,302**
Direct retirees - accumulated	3,591	3,760	**3,633**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Pensioners and retirees - EPM

Item	2021	2022	2023
Pensioners in the year	152	219	**283**
Direct retirees - accumulated	1,946	1,874	**1,777**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Taking as a premise "For EPM, the welfare of all the Company's employees is fundamental" and in order to ensure the adequate recognition of the benefits provided by the social security pension system, employees were supported in the procedures resulting from the contingencies of disability (common and work-related illnesses or accidents) and old age, to ensure the benefits awarded by the social security system.

This support included pension counseling, analysis and reconstruction of work histories, pension regime transfers, processing of applications for economic benefits, validation of pension conditions, applicable regime, benefits to which they are entitled, verification of the amount and parameters of pension settlement, resources and exhaustion of governmental channels. The same guidance was offered to employees in procedures resulting from the contingencies of common and work-related illnesses or accidents.

In 2023, the high motivation for resignation for the enjoyment of pension in the cases of the soon-to-retire population under the age of forced retirement is outstanding, due to the recognition of the pension retirement bonus agreed in the collective bargaining agreement between EPM and Sintraemsdes on April 28, 2023 and the non-bargaining agreement agreed with Sinpro on October 31, 2023, which enabled the renewal of the workforce and generational replacement.

EPM personnel soon to retire

Item	2023 a 2027 (5 years)	%	2023 a 2032 (10 years)	%
Advisors	N.A.	N.A.	1	0.01
Managers	76	0.9	133	1.6
Professionals	514	6.2	966	11.6
Support	305	3.7	535	6.4
Technologists, technicians and assistants	667	8	1,057	12.7
Total	**1,562**	**18.8**	**2,692**	**32.3**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Note: : Reference staff as of 12/31/2023, 8,302 people.

This analysis is based on the minimum age required to qualify for an old-age pension under the defined benefit average premium plan or the state-guaranteed minimum pension under the individual savings solidarity plan.

The personnel soon to retire was reported based on the number of people who would meet the age requirements for pension in Colombia; women 57 years old and men 62 years old.

Contents of GRI standards and corporate indicators

EU15 *Percentage of employees eligible to retire in the next 5 and 10 years, broken down by category and region.*

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Empresa de Energía del Quindío - EDEQ
- Central Hidroeléctrica de Caldas - CHEC
- Centrales Eléctricas del Norte de Santander - CENS
- Electrificadora de Santander - ESSA
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Elektra Noreste - ENSA

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Santander
- Colombia - Norte de Santander
- El Salvador
- Guatemala

Business

- Electricity
- Gas
- Water
- Sanitation

Back to content

Sustainability Report

2023

Trade union organizations

Grupo·epm

Trade union organizations

In Grupo EPM, respect for the right to union association and collective bargaining is guaranteed *for the 32 union organizations that are present in the Group, hence the union rights pf all workers are protected under the terms established by law.*

Based on the foregoing, the Group strictly complies with the regulatory provisions on freedom of association, and so there are 25 national and 7 international trade union organizations in the Group; similarly, 14 collective bargaining agreements have been signed in Colombia and 5 arbitration awards have been accommodated; figures that support the good relationship with the trade union organizations present in the business group.

Management in 2023

Constant relationship with the union organizations present in EPM, through approximately 60 meetings to address different topics of interest.

In addition, the Company attended the social dialogue proceedings convened by the Ministry of Labor, obtaining positive agreements for the parties. Furthermore, integration mechanisms were implemented at the level of the Business Group that made possible the standardization of criteria, best practices and performance of actions in collective labor matters; also, support was provided to the negotiations of the collective bargaining agreements of affiliates.

With the 2-year collective labor agreement (2023 - 2024), signed on April 28, 2023 between Sintraemsdes and EPM, the commitment to the welfare of workers and the sustainability of the Company was ratified. It is important to highlight that the collective welfare, the improvement of the workers' quality of life and the Company's sustainability were the main pillars, which allowed closing the agreement satisfactorily. With this agreement, the purpose of some benefits was modified, added and expanded in order to optimize their use for the greater enjoyment of employees and their families.

Membership to labor unions

Item	2021		2022		2023	
	Grupo EPM	EPM	Grupo EPM	EPM	Grupo EPM	EPM
Unions	33	6	33	6	**34**	**6**
Employees covered by agreements collective bargaining	14,875	8,392	14,866	8,162	**14,817**	**7,961**
Non-unionized	1,261	14	1,899	14	**2,364**	**15**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Support and legal advice was provided to the affiliates of Grupo EPM in the collective bargaining processes, as described below:

- Modification of the bylaws of the Colombian affiliates with respect to the duties of the boards of directors and managers in the negotiation process.
- Collective bargaining between CENS and Sintraelecol, after 18 years without negotiating, in which fixed-term employment agreement were established.
- Collective bargaining between ESSA and Sintraelecol, which made a new collective bargaining agreement with this union viable after 19 years without negotiating.
- Negotiation between Afinia and Sintraelecol, through which the collective bargaining agreements of the 5 union offices were validated.

Other indicators on trade union organizations - Grupo EPM and EPM

Item	2021		2022		2023	
	Grupo EPM	EPM	Grupo EPM	EPM	Grupo EPM	EPM
Agreements and arbitration awards	26	5	35	5	**34**	**5**
Complaints	16	1	28	2	**19**	**3**
Union officers' hours of leave	134,442	43,179	104,842	46,949	**111,260**	**50,405**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

As union guarantees, the Group's labor unions enjoy hourly and permanent union leave, privileges and per diems for the performance of their union duties, which are set forth in the respective collective bargaining agreements or arbitration awards, which have been granted under reasonableness and proportionality criteria in each negotiation.

Percentage of membership to labor unions Grupo EPM

Company	2021	2022	2023
EPM	90.90 %	92.5 %	**92 %**
Aguas Regionales	53.40 %	54.8 %	**100 %**
Aguas Nacionales	6.30 %	6.9 %	**N.A.**
Aguas de Malambo	69.50 %	63.5 %	**97.56 %**
Ticsa	N.A.	27 %	**22 %**
Adasa	93 %	90 %	**96 %**
Emvarias	93.60 %	93 %	**94 %**
CHEC	53.10 %	56.9 %	**53.82 %**
ESSA	98.7 %	98.8 %	**98.97 %**
CENS	89.7 %	95.9 %	**99.4 %**
EDEQ	86.1 %	88.96 %	**97 %**
Afinia	52 %	52 %	**58 %**
Delsur	100 %	100 %	**100 %**
EPM Guatemala	84 %	84 %	**84.1 %**
ENSA	65 %	67 %	**66 %**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Data related to union membership include people who are affiliated to at least one union, it does not consider members by extension.

Additionally, EPM and the Colombian affiliates of the corporate group were informed of the obligation incorporated by means of Resolution 3031 of August 30, 2023 issued by the Ministry of Labor, "Whereby employers are ordered to update the authorization to work overtime", which establishes that the overtime permit must be updated with the Ministry of Labor and must be processed every two years.

Contents of GRI standards and corporate indicators

2-30 *Collective bargaining agreements*

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Aguas Regionales EPM*
- *Aguas Nacionales EPM*
- *Aguas de Malambo*
- *Empresas Varias de Medellín - Emvarias*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Electrificadora de Santander - ESSA*
- *Empresa de Energía del Quindío - EDEQ*
- *Centrales Eléctricas del Norte de Santander - CENS*
- *Distribuidora de Electricidad del Sur - Delsur*
- *EPM Guatemala*
- *Tecnología Intercontinental -Ticsa*
- *Elektra Noreste - ENSA*
- *Aguas de Antofagasta - Adasa*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Quindío*
- *Colombia – Santander*
- *Colombia - Norte de Santander*
- *Colombia - Malambo, Atlántico*

- *Chile*
- *El Salvador*
- *Panamá*
- *México*
- *Guatemala*

Business

- *Electricity*
- *Gas*
- *Water*
- *Sanitation*

Back to content

Sustainability Report 2023

Employee headcount

Grupo·epm

Employee headcount

In Grupo EPM, staff is defined by structured occupational groups: managers, professionals, technologists, technicians, assistants and support staff. The report of attached employees includes the levels of positions, categories, types of positions and salaries existing in each of the affiliates

In the composition of staff, the number of male workers predominates over female workers, especially in the occupational groups of technologists, technicians, assistants and support workers, which account for approximately 55% of the population, 78% of whom are men and 22% are women. In professional level positions, which account for 41% of the population, the gap is smaller, where 61% are men and 39% are women.

The majority of the working population is between 30 and 50 years of age, maintaining a similar relationship to the concentration trend in Latin America, which is between 30 and 45 years of age. The average length of service of 10 years indicates a strong link with the companies, job stability and valuable experience.

Management in 2023

EPM ranked 8th amongst the most attractive companies to work for in Colombia, according to the study conducted by the Spanish firm Merco, on the 100 most attractive companies in the country for attracting and retaining talent. The Company has been ranked for 13 consecutive years in the top ten, taking first place in the sector ranking of companies providing residential public utilities (energy, gas, water and sanitation).

Employees by gender

Grupo·epm

17,297

29 % 5,018 | **71 %** 12,279

epm®

8,303

29.5 % 2,451 | **70.5 %** 5,852

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Note: Does not include apprentices and trainees..

Personnel by gender

Item	2021		2022		2023	
	Grupo EPM	EPM	Grupo EPM	EPM	Grupo EPM	EPM
Women	5,424	2,765	5,428	2,696	**5,589**	**2,739**
Men	12,260	6,051	12,285	5,918	**12,736**	**6,032**
Total	**17,684**	**8,816**	**17,713**	**8,614**	**18,325**	**8,771**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Note: Does not include apprentices and trainees..

Top-tier managers by gender

Item	2021		2022		2023	
	Grupo EPM	EPM	Grupo EPM	EPM	Grupo EPM	EPM
Women	70	6	41	6	**48**	**8**
Men	158	8	115	8	**79**	**6**
Total	**228**	**14**	**156**	**14**	**127**	**14**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

EPM, with 53.85% of women's participation in the Organization's top-tier decision-making levels, complied with the report of the gender quota law as of August 8, 2023.

The staff had an average internal mobility rate of 9.47%, compared to the total staff, which allowed personnel to grow in the Organization, with 60 promotions, 375 internal changes due to selection processes and 258 transfers between units.

A total of 888 selection processes were carried out, which enabled 466 new people to join the Organization.

At the end of 2023, EPM had 8,302 direct employees and 468 apprentices and trainees. A total of 40 positions were made available for people with disabilities, of which 27 were filled and 13 remained vacant.

Personnel by position and gender - Grupo EPM

Item		2021	2022	2023
Managers	Men	494	487	**456**
	Women	203	186	**179**
Managers		697	673	**635**
Professionals	Man	4,009	4,060	**4,304**
	Women	2,571	2,610	**2,777**
Professionals		6,580	6,670	**7,081**
Technologists - technicians - assistants	Men	5,090	5,023	**5,202**
	Women	1,989	1,905	**1,786**
Technologists - technicians - assistants		7,079	6,928	**6,988**
Support	Men	2,261	2,278	**2,317**
	Women	233	240	**276**
Support		2,494	2,518	**2,593**
Apprentices	Men	289	252	**311**
	Women	320	343	**447**
Apprentices		609	595	**758**
Student interns	Men	117	185	**146**
	Women	108	144	**124**
Student interns		225	329	**270**
Total		**17,684**	**17,713**	**18,325**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Personnel by position and gender – EPM

Item		2021	2022	2023
Managers	Men	157	155	**153**
	Women	59	64	**69**
Managers		216	219	**222**
Professionals	Man	2,023	1,959	**1,965**
	Women	1,459	1,422	**1,395**
Professionals		3,482	3,381	**3,360**
Technologists - technicians - assistants	Men	2,037	1,991	**2,083**
	Women	988	956	**943**
Technologists - technicians - assistants		3,025	2,947	**3,026**
Support	Men	1,655	1,608	**1,651**
	Women	28	27	**44**
Support		1,683	1,635	**1,695**
Apprentices	Men	153	174	**153**
	Women	216	195	**261**
Apprentices		369	369	**414**
Student interns	Men	26	31	**27**
	Women	15	32	**27**
Student interns		41	63	**54**
Total		**8,816**	**8,614**	**8,771**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Personnel by levels

Item	2021		2022		2023	
	Grupo EPM	EPM	Grupo EPM	EPM	Grupo EPM	EPM
Managers	697	216	673	219	**635**	**222**
Professionals	6,580	3,482	6,670	3,381	**7,081**	**3,360**
Technologists - technicians - assistants	7,079	3,025	6,928	2,947	**6,988**	**3,026**
Support	2,494	1,683	2,518	1,635	**2,593**	**1,695**
Total number of employees	**16,850**	**8,406**	**16,789**	**8,182**	**17,297**	**8,303**
Apprentices	609	369	595	369	**758**	**414**
Student interns	225	41	329	63	**270**	**54**
Total	**17,684**	**8,816**	**17,713**	**8,614**	**18,325**	**8,771**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

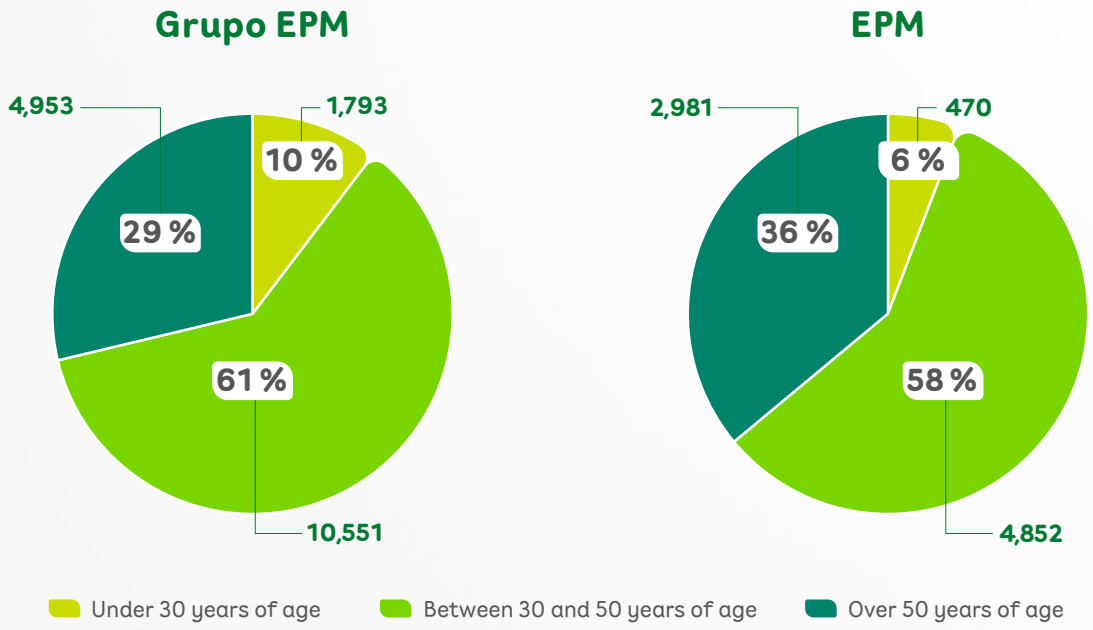
Staff increased by 1.8%, corresponding to 156 positions, of which 120 are employees and 36 are apprentices and trainees, due to the filling of vacant positions to ensure the proper execution of projects and the operation of the Organization's vital businesses.

Employee age distribution

Age range	2021		2022		2023	
	Grupo EPM	EPM	Grupo EPM	EPM	Grupo EPM	EPM
Under 30 years of age	1,862	586	1,636	404	**1,793**	**470**
Between 30 and 50 years of age	10,117	4,968	10,254	4,892	**10,551**	**4,852**
Over 50 years of age	4,872	2,852	4,899	2,886	**4,953**	**2,981**
Total	**16,851**	**8,406**	**16,789**	**8,182**	**17,297**	**8,303**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Employee age distribution - 2023



Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Diversity and gender equity are respected in the Organization, there is no discrimination. Experience and specialized knowledge in all age ranges are valued.

Percentage of employees by labor category and age group - EPM 2023

Item	Age ranges (years)			Total
	Under 30 years of age	Between 30 and 50 years of age	Over 50 years of age	
Managers	0 %	0.87 %	1.8 %	**2.67 %**
Professionals	1.67 %	26.18 %	12.61 %	**40.47 %**
Technologists - technicians - assistants	1.55 %	21.11 %	13.78 %	**36.44 %**
Support	2.43 %	10.27 %	7.71 %	**20.41 %**
Grand total	**5. 66 %**	**58.44 %**	**35.90 %**	**100 %**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Percentage of employees by labor category and gender - EPM 2023

Item	Gender		Total
	Female	Male	
Managers	0.83 %	1.84 %	**2.67 %**
Professionals	16.8 %	23.67 %	**40.47 %**
Technologists - technicians - assistants	11.36 %	25.09 %	**36.44 %**
Support	0.53 %	19.88 %	**20.41 %**
Total general	**29.52 %**	**70.48 %**	**100 %**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Average seniority (years) - Grupo EPM

Company	2021	2022	2023
EPM	12	13	**13**
Aguas del Oriente	5	2	**4**
Aguas Regionales	7	2	**7**
Aguas Nacionales	2	2	**3**
Aguas de Malambo	10	10	**12**
Ticsa	3	2	**2**
Adasa	9	8	**9**
Emvarias	17	17	**17**
HET	9	9	**7**
CHEC	15	15	**13**
ESSA	12	12	**12**
CENS	12	12	**13**
EDEQ	10	11	**11**
Afinia	11	11	**2**
Delsur	12	11	**11**
EPM Guatemala	7	11	**11**
ENSA	9	15	**9**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Average basic salary - EPM (COP million)

Item	2021	2022	2023
Managers	21	23	**26.6**
Professionals	7.9	8.8	**10.2**
Technologists - technicians - assistants	3.8	4.1	**4.7**
Support	2.4	2.7	**3.1**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

EPM has an equitable salary policy, without any distinction of gender, which applies to all positions in the Organization. Compensation is commensurate with the positions held and the functions performed.

Salaries are defined based on the valuation of positions, using a methodology of points and factors and equity, competitiveness and sustainability criteria. Remuneration is assigned based on the salary defined for the position.

The Company seeks to have salaries adjusted to the market median, based on the competitiveness analysis, using as benchmark the selected market with companies of similar characteristics.

Employees by country - Grupo EPM

Country	2021	2022	2023
Colombia	13,932	13,563	**14,193**
Panamá	604	636	**623**
El Salvador	348	354	**394**
Guatemala	786	808	**799**
México	663	878	**720**
Chile	517	550	**568**
Total	**16,850**	**16,789**	**17,297**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Note: Does not include apprentices or internships in 2023.

Contents of GRI standards and corporate indicators

Content GRI 2-7	Employees
Content GRI 401-1	New employee hires and staff turnover
Content GRI 405-1	Diversity in governing bodies and employees

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Hidroecológica del Teribe - HET
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Risarald
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - El Caribe

- Chile
- El Salvador
- Guatemala
- México
- Panamá

Business

- Water
- Sanitation
- Electricity
- Gas
- Waste

Back to content

Sustainability Report

2023

Occupational health and safety

Grupo·epm

Occupational health and safety

In accordance with Decree 1072 of 2015 and Resolution 0312 of 2019 issued by the Ministry of Labor, where the requirements for the implementation of the Occupational Safety and Health Management System are specified, EPM adopts these standards as systematic and transparent management tools to address the prevention of accidents and occupational diseases and also the protection and promotion of the health of its personnel in the provision of domestic utilities.

Management in 2023

With the purpose of complying with the regulations in force on occupational safety and health, in the internal audit of the Occupational Safety and Health Management System (Sgsst) for the year 2023, a result of 100% was obtained in the evaluation of the minimum standards established in Resolution 0312 of 2019 of the Ministry of Labor of Colombia. This result was obtained by complying with standards, requirements and procedures, applying them to EPM's Process Model and to the administrative structure departments underpinning the provision of public utilities.

EPM has the COPASST, which is made up of four representatives of the employer and four representatives of all employees with their respective alternates; this committee was elected in June 2022 and is valid until June 2024. The purpose of the COPASST is to promote and monitor the rules, regulations and other provisions related to occupational safety and health (OSH), for which it draws up an annual work plan; makes decisions by majority vote and meets monthly and extraordinarily when a fatal accident occurs..

- **OSH Management System:** in the different departments and processes of EPM, the Occupational Health and Safety Management System (OHSMS) has been implemented in accordance with the legal regulations in force, taking into account the essence of time in optimizing resources.

  EPM's management in 2023 achieved compliance with its occupational health and safety objectives in accordance with the strategies contemplated by senior management.

- **Change in the Incapacitating Injury Index (ILI):** this index for EPM had an increase with respect to 2022, so the goal for 2023 was not met, which was set at an ILI of 0.22, with 3 fatal work accidents, due to electrical risk, drowning and one sports accident, in the vice presidencies of Transmission and Distribution, Energy, Projects and Engineering and Generation, coupled with the extensions of previous years in days of medical leave in some special cases.

  The average frequency of work-related accidents was 0.34. For every 100 workers who worked per month. Three illnesses were classified as occupational diseases due to musculoskeletal and psychosocial risk.

  In 2023, we implemented controls focused on intervening in the sources that result in incidents, work-related accidents and occupational diseases, according to the prioritization obtained from the work and health conditions, in order to contribute to the improvement of the health and well-being of workers and the sustainability of processes.

  The first phase of the accident prevention program was implemented under the Vision Zero methodology in the Generation (100%), Projects (70%), Water and Sanitation (30%) businesses.

  67% of Eade's former employees were medically monitored for compliance with occupational health and safety requirements, as part of the plan for reinstatement as a result of a court order.

  We provided advice and support for collective bargaining and regular meetings with Sintraemdes on aspects related to occupational health and safety, especially for chemical and biological risk intervention measures.

- **Contractor management:** I: the inclusion of contractors is imbued in the policy and objectives of the Occupational Health and Safety Management System. Regulatory terms of reference have been established for participation in EPM's contracting schemes. In 2023, 408 meetings were held and support was provided to contractor personnel on health and safety issues, ending with a face-to-face meeting where the accident prevention strategy was shared under the Vision Zero methodology.

- **COPASST work plan:** 96% compliance was achieved in 2023.

Participation and consultation processes

- Communications matrix (OSHMS awareness-raising stage).
- Introduction and re-introduction to the OSHMS.
- Access to EPM's platform (My Blog intranet and enterprise architecture site).
- Space for conversations and interactive activities where participation is adequately encouraged through the definition of workshops or schemes to gather information that contributes to the system.

Direct communication channels such as telephone lines or e-mail.

Incapacitating Injury Index (ILI) - Outcome

Company	2021	2022	2023
EPM	0.68	0.40	**0.85**
Aguas Regionales	2.60	2.18	**1.67**
Adasa	N.A.	N.A.	**0.8**
Aguas Nacionales	0.34	0.31	**0.32**
Aguas de Malambo	1.08	0.11	**1.35**
Aguas de Oriente	N.A.	N.A.	**0.49**
Afinia	N.A.	N.A.	**0.01**
Emvarias	0.11	0.28	**0.17**
CHEC	1.45	0.48	**0.16**
ESSA	0.02	0.04	**0.16**
CENS	0.10	0.05	**0.18**
EDEQ	0.12	0.02	**0.14**
Delsur	0.00	0.01	**0.01**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

For affiliates in Colombia, the system was implemented under the guidelines of the Ministry of Labor in Resolution 0312 of 2019, through the monitoring and control of risk scenarios in each of the domestic companies of Grupo EPM.

At Afinia and Aguas Nacionales, pilots were commenced to implement the Vision Zero methodology as a tool to reduce accident rates.

With the aim of integrating occupational health and safety issues among all affiliates, the network of OSH leaders of the group's companies was formed to strengthen the management and recognition of sound safety, health and welfare practices, as well as the exchange of lessons learned from work-related accidents and occupational diseases to align the collaborative work in order to improve the performance of Grupo EPM's companies.

Occupational health and safety training - Grupo EPM

Item	2021	2022	2023
Hours	82,796	106,217	**151,128**
Training attendees	22,625	26,483	**25,935**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Note: Training corresponds to the number of employees of Grupo EPM who attended to training courses on occupational health and safety issues.

A total of 1,900 workers at heights were certified, equivalent to 100% of exposed personnel, in accordance with Resolution 4272/2021, and 900 workers in confined spaces were certified in accordance with Resolution 0491/2020.

In operating units, work plans were established based on the prioritization of the risk matrix, and updating minutes were incorporated with the participation of unit managers and process leaders.

During the period, more than 6,863 inspections were carried out, which allowed for the implementation of process improvement actions, reported accidents and incidents were investigated, epidemiological medical surveillance systems (EVS) were implemented where 2,966 occupational medical examinations were performed on operating personnel (100%) according to their exposure to risk factors, in order the meet the health needs and conditions of the Organization.

Contents of GRI standards and corporate indicators

403-1	*Occupational health and safety management system*
403-2	*Hazard identification, risk assessment and incident investigation*
403-3	*Occupational health services*
403-4	*Worker involvement, consultation and communication on occupational health and safety issues*
403-5	*Occupational health and safety training for workers*
EU16	*Policies and requirements concerning the health and safety of workers, contractors and subcontractors.*
EU18	*Percentage of contractors and subcontractors that have undergone relevant health and safety training*

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Aguas de Antofagasta – Adasa
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Afinia
- Centrales Eléctricas del Norte de Santander - CENS
- Distribuidora de Electricidad del Sur – Delsur

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - Atlántico
- Colombia – Risaralda
- Chile

Business

- Electricity
- Gas
- Water
- Sanitation
- Waste

‹ Back to content

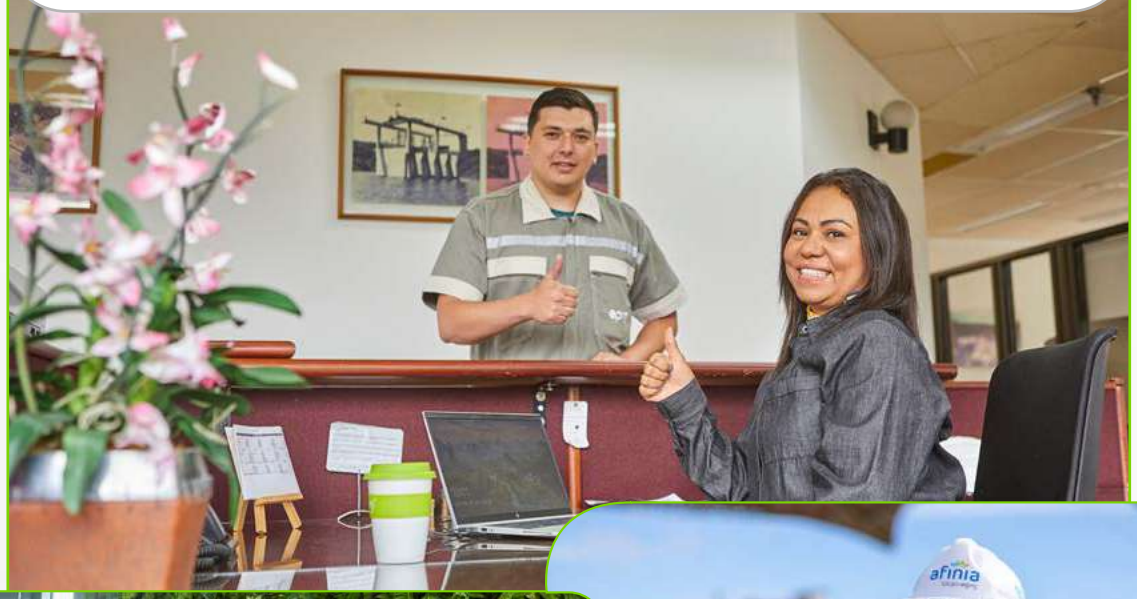
Sustainability Report 2023

Personnel selection

Grupo·epm

Personnel selection

*The **Human Talent Recruitment** process uses methodologies and techniques in its various stages to engage the suitable human talent that Grupo EPM requires to achieve its objectives. The application of principles of equal conditions for work, labor inclusion, gender equity, respect for diversity and other aspects defined by the Colombian regulations for giving labor opportunities to diverse populations is ensured. It includes recruitment activities, review and analysis of candidates' requirements, pre-selection and selection of people for fixed-term and permanent positions, as well as apprentices and trainees. The mechanisms for filling vacancies are: promotion, horizontal transfer, succession, internal competition and external competition.*



Management in 2023

In Grupo EPM, the **management of human talent recruitment** enabled the selection of suitable people through the mechanisms of promotion, succession, horizontal transfer, internal and external competition. Strict procedures and business rules were established in each company to ensure effective selection, maintaining the traceability and transparency of processes.

The Shared Services Center of EPMS hosts the selection service for EPM, Afinia, CHEC, CENS, EDEQ and ESSA. In 2023, 3,187 petitions, complaints and suggestions (PQRs) were received, of which 81.6% were related to EPM and the remaining 18.4% to affiliates.

In EPM, the following were recorded:

466 new recruits

53 promotion processes

375 changes resulting from selection processes

258 inter-unit transfers

Personnel selection - Grupo EPM

Item	2021	2022	2023
Selection Processes	3,683	2,883	**3,330**
Contract amendments	1,029	593	**936**
Related parties	2,641	1,519	**2,191**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

In 2023. Servicios Grupo EPM recruited 60,540 people to fill 2,050 vacancies in Colombia, of these 17,525 were made in processes of the affiliates Afinia, CHEC, CENS, EDEQ and ESSA and the rest for EPM.

The vacancies offered annually promote employment in Colombia and contribute to providing job opportunities where Grupo EPM has a presence, fostering the sustainable development of those territories.

Personnel selection - EPM

Item	2021	2022	2023
Selection Processes	1,440	1,264	**1,142**
Contract amendments	518	253	**428**
Related parties	891	199	**466**

Source: *Employee Experience and Organizational Solutions Vice-Presidency.*

Applicants enrolled in selection processes in EPM fulfilled the business rules based on internal and environmental requirements; rules related to the rights of various populations were incorporated and the use of digital methodologies and tools for virtual processes was strengthened.

The employer brand of Grupo EPM is very attractive in the market, which is evident by the number of people who participated in selection processes, compared to other companies in the sector.

Contents of GRI standards and corporate indicators

EU14 ***Programs and processes to ensure the availability of skilled manpower***

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Hidroecológica del Teribe - HET
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Risaralda
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - El Caribe

- El Salvador
- Guatemala
- México
- Panamá
- Chile

Business

- Water
- Sanitation
- Electricity
- Gas
- Waste

‹ Back to content

Sustainability Report

2023

Quality and safety of products and services

Grupo·epm

Table of contents

Material issues

P.

Quality and safety of products and services 721

- Quality and continuity of service 735
- Education and communication to customers and users 745
- Loss management 751
- Customer experience management 758
- Safety in the provision of the service 762
- Customer service 766

Quality and safety of products and services

It comprises technical and commercial characteristics inherent to the service to meet customer and user expectations and regulatory and control requirements. This includes service quality, continuity and safety, customer service and satisfaction, and infrastructure development and improvement.

*The **quality and safety of products and services** are basic for the competitiveness of Grupo EPM and the maintenance and strengthening of its reputational capital.*

Technology and innovation, optimization of processes and business management systems ensure the quality of services in terms of greater economic value and market share.

Approaches

Service features: the quality of the service is closely related to its continuity, i.e., users can enjoy the service on a permanent basis. Quality is related to the modernization of infrastructure for more efficient operations and the expansion of coverage in the territories. It also impacts the reputation of Grupo EPM in respect of tariffs and prices, if a quality service is not perceived. In terms of safety conditions, quality is associated with the provision of services that contemplate the protection and care of people and the avoidance of damages to third parties.

Customer and user service: timely service, through the relevant channels, for the different conditions of people, and responsiveness to requests, complaints, claims and suggestions and the supply of timely and clear information regarding changes or modifications in the provision of the service.

Main achievements in 2023

Program, project, initiative or action	Challenge		Company	Achievement		Compliance
Service quality and continuity	Achieve an aqueduct continuity index - ICTAC =	99.7 %	EPM	Index obtained:	99.84 %	Partial
		99.7%	Aguas del Oriente		99.91 %	Total
		98.36%	Aguas Regionales		93.74 %	Partial
		83.57 %	Aguas de Malambo		82.66 %	Total
	Achieve a water quality risk index - IRCA	< 5 %	EPM	Index obtained:	0.76 %	Total
			Aguas del Oriente		0 %	Total
			Aguas Regionales		0.48 %	Total
			Aguas de Malambo		0.38 %	Total
	Maintain 100% continuity in collection		Emvarias	Index obtained:	100 %	Total
	Maintain 100% continuity in sweeping and cleaning				101 %	Total

Main achievements in 2023

Program, project, initiative or action	Challenge		Company	Achievement		Compliance
Service quality and continuity	Achieve a Saifi index =	8	EPM	Index obtained:	7.78	Total
			CENS		6.9	Total
			EDEQ		4.2	Total
		17.14	CHEC		16.97	Total
		12.43	ESSA		9.96	Total
		7.48	Delsur		9.80	Not met
		6.93	ENSA		9.94	Not met
	Achieve a Saidi index =	9.14	EPM	Index obtained:	12.42	Not met
		22.42	CENS		27.33	Not met
		5.81	EDEQ		5.21	Total
		20.74	CHEC		26.56	Not met
		21.62	ESSA		19.84	Total
		14.67	Delsur		22.41	Not met
		12.15	ENSA		15.12	Not met

Main achievements in 2023

Program, project, initiative or action	Challenge			Company	Achievement		Compliance
Loss management	Achieve a loss per billed user index - IPUF of less than or equal to		6	EPM	Index obtained:	6.34	Not met
			14.56	Aguas de Malambo		16.9	Not met
			2.9	Aguas del Oriente		1.83	Total
			9.99	Aguas Regionales		10.68	Not met
	Achieve a network operator loss index - Iporr =		8.82 %	EPM	Index obtained:	8.9 %	Partial
			8.47%	CHEC		7.6 %	Total
			11.49 %	ESSA		12.86 %	Not met
			12.47 %	CENS		13.6 %	Not met
			8.45 %	EDEQ		7.84 %	Total
	Achieve a Gas loss index of less than or equal to		5.0 %	EPM	Index obtained:	5.25 %	Not met
Customer	Achieve a complaint index of less than or equal to	Consolidated	2.87	EPM	Index obtained:	3.16	Total
		Aqueduct	2.3			2.72	Not met
		Sewer	0.25			0.05	Total
		Energy	0.88			1.39	Total
		Gas	1.00			0.51	Total

Main achievements in 2023

Program, project, initiative or action	Challenge		Company	Achievement		Compliance
Customer service	Achieve a complaint index of less than or equal to	27	Aguas de Malambo	Index obtained:	9.12	Total
		3.4	Aguas Regionales		0.48	Total
		2.14	Aguas del Oriente		0.77	Total
		0.94	ESSA		1.22	Not met
		1	CENS		2.24	Not met
		0.9	CHEC		0.9	Total
		0.84	EDEQ		0.17	Total
		1.91	Emvarias		1.66	Total

Challenges in 2024

Program, project, initiative or action	Challenge		Company	Business	Geography
Quality and continuity of service	Achieve an index of continuity of the aqueduct - Ictac =	99.70%	EPM	Water and Sanitation	Colombia - Antioquia
		89.5 %	Aguas de Malambo		
		99.7 %	Aguas del Oriente		
		98.36 %	Aguas Regionales		
	Achieve a water quality risk index - IRCA <	5%	EPM	Water and Sanitation	Colombia - Antioquia
			Aguas del Oriente		
			Aguas Regionales		
					Colombia - Malambo
	Maintain 100% continuity in sweeping and cleaning		Emvarias	Solid Waste Management and Marketing	Colombia - Antioquia
	Maintain 100% continuity in collection		Emvarias		

Challenges in 2024

Program, project, initiative or action	Challenge		Company	Business	Geography
Quality and continuity of service	Achieve a Saidi index =	9.18	EPM	Energy - T&D	Colombia - Antioquia
		19.08	CHEC		Colombia - Caldas
		22.07	CENS		Colombia - Norte de Santander
		5.73	EDEQ		Colombia - Quindío
		22.43	ESSA		Colombia - Santander
		12.11	ENSA		Panamá
		14.7	Delsur		El Salvador
Service quality and continuity	Achieve a Saifi index =	8.09	EPM	Energy - T&D	Colombia - Antioquia
		7.92	EDEQ		Colombia - Quindío
		15.77	CHEC		Colombia - Caldas
		8	CENS		Colombia - Norte de Santander
		12.75	ESSA		Colombia - Santander
		6.91	ENSA		Panamá
		7.5	Delsur		El Salvador

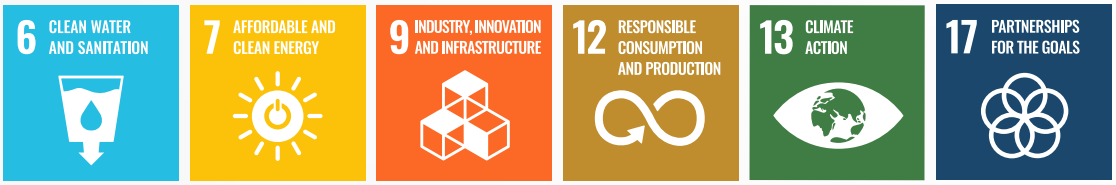
Challenges in 2024

Program, project, initiative or action	Challenge		Company	Business	Geography
Loss management	Achieve a loss per billed user index - IPUF of less than or equal to	6	EPM	Water and Sanitation	Colombia - Antioquia
		2.9	Aguas del Oriente		
		9.46	Aguas Regionales		
		10.8	Aguas de Malambo		Colombia - Malambo
	Achieve a network operator loss index - Iporr =	8.78%	EPM	Energy - T&D	Colombia - Antioquia
		10.97%	ESSA		Colombia - Santander
		12.17%	CENS		Colombia - Norte de Santander
		8.47 %	CHEC		Colombia - Caldas
		8.42%	EDEQ		Colombia - Quindío
	Achieve a Gas loss index of less than or equal to	4,6%	EPM	Energy - Gas	Colombia - Antioquia
Customer Service	Achieve a complaint index of less than or equal to	2.87		All businesses	
	Achieve an aqueduct complaint index of less than or equal to	2.07		Water and Sanitation	
	Achieve a sewage management complaint index of less than or equal to	0.25			

Challenges in 2024

Program, project, initiative or action	Challenge		Company	Business	Geography
Customer Service	Achieve an energy complaint index of less than or equal to	0.88	EPM	Energy - T&D	Colombia - Antioquia
	Achieve a Gas complaint index of less than or equal to	1		Energy - Gas	
	Achieve a complaint index of less than or equal to	2.14	Aguas del Oriente	Water and Sanitation	Colombia - Antioquia
		3.3	Aguas Regionales		
		27	Aguas de Malambo		Colombia - Malambo
		2.1	Emvarias	Solid Waste Management and Marketing	Colombia - Antioquia
		1.17	ESSA	Energy - T&S	Colombia - Santander
		1	CENS		Colombia - Norte de Santander
		0.84	EDEQ		Colombia - Quindío
		0.9	CHEC		Colombia - Caldas

Sustainable Development Goals



Associated stakeholders

- *Customers and users*
- *Community*

Contents of GRI standards and corporate indicators

Contents 2-27	*Compliance with laws and regulations*
Content GRI 3-3	*Management of material issues*
Content GRI 416-2	*Cases of non-compliance related to health and safety impacts of product and service categories*
Content GRI 417-3	*Cases of non-compliance related to marketing communications*
Content GRI 418-1	*Substantiated complaints regarding violations of customer privacy and loss of customer data*
EU25	*Number of injuries and fatalities involving company assets, including court rulings, settlements and legal cases pending illnesses*
EU28	*Average frequency of outages*
EU29	*Average duration of outages*
EPM-03	*Loss index*
EPM-04	*Service channels*
EPM-07	*Customer experience - NPS (Net Promoter Score)*
EPM-18	*Aqueduct continuity index - ICTAC*

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Empresa de Aguas del Oriente Antioqueño
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Risaralda
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - El Caribe

- El Salvador
- Guatemala
- Chile
- México
- Panamá

Business

- Water
- Sanitation
- Electricity
- Gas

Back to content

Sustainability Report

2023

Quality and continuity of service

Grupo·epm

Quality and continuity of service

*The **quality of service** comprises the technical and commercial characteristics inherent to the supply. It must meet the expectations of customers and users, in addition to meeting the requirements of regulatory and control entities.*

***Continuity** refers to the amount of time users can make use of the service.*

Management in 2023

Grupo EPM provided its customers with **water fit for human consumption** in all the territories where it has a presence.

As for the gas service, 100% of the quality and continuity indicators were met.

EPM has a high level of continuity of water service, at 99.84%. With actions such as the start-up of the Moflo - Operational Flexibility Module at the Manantiales plant, there will be a greater availability of service in the event of events such as the El Niño phenomenon, ensuring continuity and quality in the provision of service in the Aburrá Valley.

With respect to the affiliates of Aguas, the following is highlighted:

In Aguas Regionales, water supply projects were carried out such as the optimization of the catchment of the municipality of Santa Fe de Antioquia, the expansion of the PPAP of the municipality of Chigorodó from 100 l/s to 168 l/s, and the construction of the sludge management system in the municipality of Sopetrán. As for wastewater, the design of the El Llano wastewater treatment system in the municipality of Sopetrán is underlined.

In Aguas de Malambo, works were carried out with resources from conditional contributions, related to the expansion of storage capacity by 3,000 m3 in the El Tesoro tank; this work is expected to improve service provision in sectors such as El Carmen, Bellavista and the 8 neighborhoods that comprise the old town, among others.

In November, an agreement was also awarded for the construction of a 3,000 m3 storage tank at the Concord plant. Operations are expected to start during the next fiscal year, which will increase the continuity of service provision in this sector.

In Aguas de Oriente, the completion of works at the wastewater pumping station - EBAR - in the Villa Elena sector is noteworthy, benefiting 220 current homes and a total of 910 homes in the future, which, together with the pumping station, contributes to the quality of the sewage service in the municipality of El Retiro.

Adasa implemented projects that increased the supply of water from the unregulated market by 42 l/s, enabling it to meet the region's water demand for the mining industry. In addition, in December 2023, the supply works for the sale of water were completed, for the delivery of a flow of 200 l/s to the non-regulated market as of January 2024 by increasing the capacity of Arranque Lomas Bayas.

All the companies in the group have an annual IRCA of less than 5%, significantly lower than the legal reference value, which guarantees the supply of water suitable for human consumption throughout the year in accordance with Resolution 2115 of 2007.

The group's companies continue to rigorously apply a series of technical and operational measures, including infrastructure maintenance, the washing of water storage tanks and, when necessary, the renewal of water in distribution networks through the operation of hydrants and the intensification of water quality monitoring and follow-up to permanently verify the condition of the system.

As for energy, the Saidi indicator measures the average duration of outages perceived by users connected to EPM's energy distribution system. This user perception in 2023 improved from 13.14 to 12.42 compared to the previous year. This is equivalent to a reduction of -1.85 hours; however, it is not reflected in the regulatory indicator due to the impossibility of excluding events that went unresolved due to public order problems.

Some affiliates in Colombia showed an increase as a result of the inability to exclude high impact events due to force majeure or public order problems, as a consequence of the communication from the CREG with file number S2022002666 dated July 22, 2022, which restricts the exclusion of events that do not have a causal link, giving rise to incidents in the deviation of compliance with the goal. Others increased slightly, mainly due to unfavorable weather conditions during the year, which increased the number of failures. In Guatemala, on the other hand, the result obtained was due to favorable weather conditions and the resolution of some events that were recovered under three minutes. In Panama, with respect to the established target values, the SAIDI indicator resulted in 76% compliance with the limit value established as an annual target, as a result of different factors such as: trees or branches, atmospheric discharges, animals, instructions from the competent authority, vehicle collisions, connector damage, conductor/underground cable, etc. In El Salvador, there were adverse weather conditions and the regulator's rejection of some failures classified as force majeure.

Regarding the Saifi indicator, it measures the average number of times an outage occurs for users of EPM's energy distribution system. In the year 2023, with the investments and activities defined in the Quality project and with the actions implemented by the Operation and Quality processes, this indicator remained below 8 outages and went from 7.87 to 7.78.

Caidi represents the ratio between the system average outage duration index (SAIDI) and the system average outage frequency index (SAIFI). Its reading becomes difficult if both indicators show similar performance, concealing an improvement that can be perceived by users. It can be interpreted as the average time per outage to restore the service, and in the year 2023 an improvement of 4% was achieved, which is equivalent to almost 3 minutes of time per event.

EPM met 100% of the continuity and quality indicators for the gas service required by current Colombian regulations.

The availability of the system and the service was guaranteed in the event of public order situations (blockades, stoppages, etc.) and situations associated with the winter season (difficulties in access roads).

Continuity of the water supply and sanitation service (%)

Concept	2021	2022	2023
EPM	99.85 %	99.84 %	**99.84 %**
Aguas del Oriente	99.80 %	99.67 %	**99.91 %**
Aguas Regionales	92.81 %	94.13 %	**93.74 %**
Aguas de Malambo	73.83 %	76.64%	**82.66 %**
Ticsa	97.61 %	99.55 %	**99.72 %**
Adasa	99.41 %	99.48 %	**82 %**

Source: *Water and Sanitation Vice-Presidency.*

Note: Ticsa's value corresponds to continuity for sanitation.

Water Quality Risk Index (IRCA) - EPM (%)

City	2021	2022	2023
Medellín	0.56 %	1.08 %	**0.68 %**
Copacabana	0.53 %	1.62 %	**0.71 %**
Girardota	1.35 %	1.65 %	**0.68 %**
La Estrella	0.16 %	1.40 %	**0.72 %**
Caldas	0.95 %	1.20 %	**0.75 %**
Barbosa	0.52 %	0.75 %	**0.88 %**
Sabaneta	0.72 %	2.14 %	**0.96 %**
Envigado	0.43 %	1.21 %	**1.00 %**
Bello	0.46 %	0.83 %	**0.58 %**
Itagüí	0.52 %	1.02 %	**0.82 %**

Source: *Water and Sanitation Vice-Presidency.*

Water quality risk index (IRCA)- Aguas del Oriente (%)

City	2021	2022	2023
El Retiro	0.00 %	0.00 %	**0.04 %**

Source: *Water and Sanitation Vice-Presidency.*

Water Quality Risk Index (IRCA) - Aguas Regionales (%)

City	2021	2022	2023
Sopetrán	0.00 %	0.02 %	**0.00 %**
San Jerónimo	0.00 %	0.01 %	**0.00 %**
Santa Fé de Antioquia	0.14 %	0.10 %	**0.00 %**
Olaya	0.00 %	0.00 %	**0.00 %**
Apartadó	0.02 %	0.15 %	**0.04 %**
Turbo	0.15 %	0.20 %	**0.05 %**
Chigorodó	0.00 %	0.04 %	**0.00 %**
Carepa	0.02 %	0.10 %	**0.09 %**
Mutatá	0.00 %	0.00 %	**0.47 %**
El Reposo	0.02 %	0.15 %	**0.00 %**
Bajirá	0.00 %	0.00 %	**0.00 %**

Source: *Water and Sanitation Vice-Presidency.*

Water quality risk index (IRCA) - Aguas de Malambo (%)

City	2021	2022	2023
Malambo	0.05 %	0.18 %	**0.38 %**

Source: *Water and Sanitation Vice-Presidency.*

Average duration of system outages (Saidi) - (hours)

Company	2021	2022	2023
EPM	13.39	13.14	**12.42**
CHEC	24.11	22.17	**26.56**
ESSA	18.98	22.22	**19.84**
CENS	24.38	22.61	**27.33**
EDEQ	6.18	6.02	**5.21**
Afinia	89.32	74.00	**74.86**
Delsur	16.63	18.62	**22.41**
EPM Guatemala	4.45	6.84	**5.46**
ENSA	12.74	12.07	**15.12**

Source: *Energy Transmission and Distribution Vice-Presidency.*

Note: Saidi: it is calculated as the total outage time (in hours) that the average customer-user of the system was deprived of electricity supply in the period evaluated.

Average frequency of system outages (Saifi) - (quantity)

Company	2021	2022	2023
EPM	8.18	7.87	**7.78**
CHEC	19.80	18.14	**16.97**
ESSA	12.57	12.50	**9.96**
CENS	7.58	6.62	**6.90**
EDEQ	6.06	4.69	**4.20**
Afinia	72.09	52.20	**50.85**
Delsur	7.80	8.77	**9.80**
EPM Guatemala	3.63	5.05	**3.47**
ENSA	6.71	7.51	**9.94**

Source: *Energy Transmission and Distribution Vice-Presidency.*

Note: Saifi: number of times an average user of the system suffers an interruption of electricity service in the period evaluated.

Continuity of the gas service - EPM

Item	2021	2022	2023
Individual Line Pressure Index (IPLI)	100.00 %	100.00 %	**100.00 %**
Odorization Index (OI)	100.00 %	100.00 %	**100.00 %**
Equivalent Service Interruption Duration (DES)	0.00	0.00	**0.00**

Source: *Gas Vice-Presidency.*

Note: The Equivalent Service Interruption Duration (DES) is expressed in hours.

Contents of GRI standards and corporate indicators

EU28	***Average frequency of outages***
EU29	***Average duration of outages***
EPM-18	***Aqueduct continuity index - ICTAC***

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Empresa de Aguas del Oriente Antioqueño
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Risaralda
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - El Caribe
- Colombia - Malambo, Atlántico

- El Salvador
- Guatemala
- Chile
- México
- Panamá

Business

- Water
- Sanitation
- Electricity
- Gas

Back to content

Sustainability Report

2023

Education and communication to customers and users

Grupo·epm

Education and communication to customers and users

The relationship with customers and the community seeks to improve and strengthen the trust between users and the company and is managed through educational communication with strategies of awareness, information and training on basic aspects of the provision of residential public utilities. On the other hand, informative communication of scheduled and unscheduled outages is aimed at minimizing the inconvenience to customers and users, while commercial communication seeks to position Grupo EPM brand, its services and the different offers associated with affordability and access.

Management in 2023

Ties were established and **moments of togetherness** were created with more than 544,000 users of all segments directly in their territories in all subregions of the department of Antioquia.

With the different Customer and Community Education strategies, 221,347 activities were carried out in all subregions of Antioquia: training sessions, home visits, workshops, customer days, talks, network of leaders and contests, among others.

- **Por ti estamos ahí closeness program:** this immersion in the territories allows us to talk about the different topics associated with the provision of public utilities, in activities such as: home visits, talks, discussions, workshops, social gatherings and other educational events.

  Institutional presence in 48 territories in all subregions of Antioquia.

  Relations with community and institutional bodies in different territories.

  47 appearances in the media of the different territories (radio, social networks, TV).

  37,778 people in direct interactions.

  25,140 people estimated through media.

- **Cuidamundos EPM:** through the Cuidamundos program, interactions were held with children, young people and adults in the educational sector, encouraging care for the environment and the efficient and safe use of public services and natural resources, with the conviction that the relationship with users from childhood allows the strengthening of bonds of trust and sustainability.

  146 educational institutions in the Cuidamundos process in the municipalities of the area of interest of the Hidroituango project.

  51 institutions in the other subregions of Antioquia with awareness-raising and drawing contests.

  Awareness programs for 48,483 people.

  11,812 participants in contests.

- **Conexiones por la Vida:** this program seeks to deliver water and sewage services legally, with quality and continuously to families in the city of Medellín who do not have them. It also seeks to create bonds of trust with the leaders and communities in the territories, facilitate the technical development of works and empower the community to take ownership, care for and respect the new infrastructure, in addition to committing them to the efficient use of resources and the timely payment of the bill.

  Efficient consumption indicator: 11 m3, below the target consumption of 15 m3.

  Timely payment indicator of 93%, meeting the goal.

  Interaction, closeness and trust with more than 36,580 people who today consume water or sewage legally.

- **Cuido el agua cuido la vida:** since 2020, the Cuido el agua cuido la vida strategy has been developed, which seeks to promote in the communities of the Aburrá Valley the efficient use and care of water resources from the source through the identification, care and protection of the watersheds of the different territories by their communities and their leaders.

  50 sectors of the Aburrá Valley.

  90 leaders in training.

  8 educational institutions with recreational experiences.

  58,728 people benefited.

- **Ambiente para la Vida:** it is an ongoing relationship program established in 2019 with the communities downstream of the Hidroituango project, which was extended in 2022 to serve the 16 municipalities that are part of the project's area of interest. In this way, through the scope of community strengthening, relationship workshops, Agua para la Educación, environmental education and Cuidamundos, this dynamic was maintained during 2023.

  The process of training leaders through a diploma course with Universidad de Antioquia to strengthen their work, which allowed 75 leaders from San Andrés de Cuerquia, Toledo, Yarumal, Briceño and Pequeño to participate and receive their certificate, is noteworthy.

- **Lectura a tu medida y claridad en la factura:** it is a program that seeks to build trust in the meter reading process and its direct relationship with the units of measurement billed. Through an invitation made by the meter readers, customers learn how the reading process is carried out and how to follow up their consumption and later corroborate it with their bills.

  82,567 customers in Antioquia are familiar with the process of taking consumption readings with the Lectura a tu medida system.

  55 thousand additional customers received training and explanation of tariff and billing concepts.

- **Red de Líderes Amigos EPM and training meetings:** community leaders are considered essential players in EPM's relationship with its customers and communities; for this reason, the Customer and Community Education Unit carries out the "Red de Líderes Amigos" strategy, with nodes in the metropolitan area, Urabá, West, East and Lower region of Cauca in Antioquia.

  10 meetings with the participation of 178 leaders, who permanently share leadership experiences in the Red de Líderes Amigos.

  709 leaders participated in the training and certification meetings for leaders in the territories of the Por ti estamos ahí program.

- **Educational relationship with non-mass segments:** establishing relationship and education processes on public utilities issues with non-mass segments such as large customers, government and companies is also essential for EPM.

  Business segment: eight business outreach days were held with this segment, with talks and discussions on the valuation of public utilities, energy efficiency and their efficient, safe and legal use.

  Government segment: 24 activities were coordinated and executed with this segment, including government seminars with the municipal administrations of Medellín, Southwest and Northern Antioquia, and discussions on the valuation of services.

Large customer segment: 33 events were held with this segment, 26 with local customers and 7 with national customers. Digital campaigns, talks, lectures and plant visits were also carried out.

2,893 people and 60 companies or institutions benefited.

- **1989 Pilot:** during the year 2023 EPM implemented a pilot in order to evaluate the feasibility of the application of the benefit provided in law 1989 to reduce the costs of the headquarters of the community action boards associated with public utilities, in order to validate whether the activities developed by the community action organizations (OAC) contribute or not in the fight against illegality in the connections of public utilities provided by EPM in the communities. This pilot will end in February 2024.

  Of the twelve community action organizations that were initially started, eight have been completed by December 2023.

  We carried out 5,237 educational management activities benefiting 13,630 people.

- **Gatherings:** meetings to raise awareness on the value of public utilities using historical data based on images, anecdotes, etc. A total of 118 gatherings were held in territories in all subregions, benefiting more than 4,000 people.

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Aguas Regionales EPM*
- *Empresa de Aguas del Oriente Antioqueño*

Geography

- *Colombia – Antioquia*

Business

- *Water*
- *Sanitation*
- *Electricity*
- *Gas*

‹ Back to content

Sustainability Report

2023

Loss management

Grupo·epm

Loss management

Programs to reduce and control losses in the water supply service are aimed at reducing the waste of water resources through the control and prevention of leaks, commercial actions and social interventions to promote the responsible use of water by customers, users and the community in general.

In energy and gas utilities, the programs integrate education, offers for access, affordability and technologies to minimize the vulnerability of the infrastructure to fraudulent actions.

Management in 2023

The **losses per billed user index (IPUF) in EPM** is 6.34 m3 of water, 0.34 points above the regulatory target, with a change of 11% compared to the previous year.

The main actions that must continue to be implemented to reduce the level of water losses in the group's companies are related to network maintenance and specifically to activities such as: systematic search for leaks, timely repair of damages and investments in replacement, prioritizing the sectors to be intervened, as well as macro-measurement investments. With respect to the commercial losses component, actions such as: preventing fraud, cutting off service to subnormal sectors, changing and installing meters, etc., should continue.

These actions are defined according to the specifics of each territory where the Company is present and are subject to the capacity of each company and depending on the resources and investment plan.

In Colombia, the Iporr calculation methodology was modified by the entry into force of CREG Resolution 015 of 2018, and by changes in the calculation of energy balances. These changes in the methodology imply

the exclusion of energy rebilled per user [kWh] from the balances and the calculation of the Iporr. Rebilled energy is obtained from the remaining consumption under investigation and is billed in subsequent months, or from adjustments or rebilling of consumption that was over-billed or not billed during periods prior to the one to which the reported bill relates. As a result of this change, all consumption that is rebilled must be excluded from the loss index, increasing this index and having an impact on the energy balances of the network operator (RO); however, rebilled energy is not an actual loss.

Outside Colombia, it is equivalent to the regulated network operator loss ratio (Iporr). This index showed an increasing trend during the second half of 2023, a trend that had been projected for the indicator behavior for the year 2023 and is explained by billing adjustments made during the year 2022, which would have an impact on the behavior of the indicator during the year 2023. Similarly, the closing Iporr of 8.9% was higher than the target, due to the impact of the computer incident on prepaid energy customers during the first half of the year, which caused an estimated loss of 0.15 percentage points not included in the 2023 target. The Iporr has integrated the regulatory changes resulting from the entry into force as of January 2020 of CREG Resolutions 015 of 2018 and 036 of 2019 for the network operator (RO) EPM.

In Guatemala, as part of loss control and reduction management, the BI-Inspecciones application was implemented in 2022 in order to detect customers with fraudulent electricity consumption. This application includes analytical features such as artificial intelligence, neural networks and machine learning and allows further progress in the maintenance and reduction of energy loss levels.

In Panama, new techniques are being applied such as machine learning and the implementation of the logical neighborhood model.

Commercial energy losses in the regulated market (Iperc) are equivalent to the difference between energy purchased and energy sold and can be classified as non-technical or commercial losses (commonly called black losses) and there are usually many factors that exceed the management of energy traders, as it involves the entire business chain. Therefore, the efforts focused on reading errors, commercial border control, user fraud,

etc. To this end, different strategies were applied to address retrievals by means of machine learning, logical neighborhood models and new strategies were developed based on their results.

Losses in the Transmission business in Colombia (>220 kV voltage) are primarily technical losses and are the result of the 12-month average of the ratio between energy losses in kWh of the regulated market and the non-regulated market and the purchase of energy in kWh to serve those markets.

The indicator was reduced by 5% with respect to the previous year. A new unit was created in the Gas business dedicated exclusively to loss management and technical service.

The activities carried out through the new Gas Loss Management and Technical Services Unit were: detection of anomalies and in the performance of standardization operations, implementation of controls to billing information, control of non-technical irregularities (reactivation of criminal complaints and legal proceedings to attack fraud and review of metering variables), metrological control (calibrations of input nodes, review of meters of different segments), pilot of meters older than 20 years and review of processes, among others.

Unaccounted-for water index (ANC) - (%)

Company	2021	2022	2023
EPM	31.23 %	30.79 %	**33.34%**
Aguas del Oriente	19.50 %	18.20 %	**15.00%**
Aguas Regionales	40.70 %	42.72 %	**49.66%**
Aguas de Malambo	50.70 %	52.56 %	**52.16%**
Adasa	28.16 %	27.93 %	**26.63%**

Source: *Water and Sanitation Vice-Presidency.*

Water loss per billed water user index (IPUF) - (m^3)

Company	2021	2022	2023
EPM	5.84	5.70	**6.34**
Aguas del Oriente	2.26	2.37	**1.82**
Aguas Regionales	8.59	9.25	**10.68**
Aguas de Malambo	17.57	18.43	**16.9**
Adasa	7.35	7.34	**6.98**

Source: *Water and Sanitation Vice-Presidency.*

Regulated network operator loss index (Iporr) - (%)

Company	2021	2022	2023
EPM	8.89 %	8.24 %	**8.90 %**
CHEC	7.97 %	7.48 %	**7.60 %**
ESSA	12.70 %	12.12 %	**12.86 %**
CENS	13.17 %	12.73 %	**13.60 %**
EDEQ	8.31%	7.91 %	**7.84 %**
Afinia	27.73 %	26.15 %	**26.73 %**
Delsur	9.89 %	9.46 %	**8.49 %**
EPM Guatemala	4.66 %	4.58 %	**4.65 %**
ENSA	11.31 %	10.31 %	**10.26 %**

Source: *Energy Transmission and Distribution Vice-Presidency.*

Regulated market commercial loss index (Iperc) - (%)

Company	2021	2022	2023
EPM - T&D	13.01 %	11.92 %	**12.17 %**
CHEC	12.66 %	11.68 %	**11.70 %**
ESSA	16.90 %	15.81 %	**16.46 %**
CENS	15.52 %	16.32 %	**16.80 %**
EDEQ	10.52 %	10.22 %	**10.11 %**
Afinia	32.67%	30.49 %	**31.72 %**
Delsur	10.00 %	9.67 %	**8.64 %**
EPM Guatemala	5.96 %	5.88 %	**6.02 %**
ENSA	13.97 %	12.92 %	**12.72 %**

Source: *Energy Transmission and Distribution Vice-Presidency.*

National transmission system loss index (IPRSTN) - (%)

Company	2021	2022	2023
EPM	1.46 %	1.57 %	**1.61 %**

Source: *Energy Transmission and Distribution Vice-Presidency.*

Gas loss index - (%)

Company	2021	2022	2023
EPM	5.00 %	5.50 %	**5.25 %**

Source: *Gas Vice-Presidency.*

Contents of GRI standards and corporate indicators

EPM-03 *Loss index*

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Aguas Regionales EPM*
- *Aguas del Oriente*
- *Aguas de Malambo*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Electrificadora de Santander - ESSA*
- *Empresa de Energía del Quindío - EDEQ*
- *Centrales Eléctricas del Norte de Santander - CENS*
- *Afinia*
- *Distribuidora de Electricidad del Sur - Delsur*
- *EPM Guatemala*
- *Tecnología Intercontinental -Ticsa*
- *Elektra Noreste - ENSA*
- *Aguas de Antofagasta - Adasa*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Quindío*
- *Colombia – Risaralda*
- *Colombia – Santander*
- *Colombia - Norte de Santander*
- *Colombia - Malambo, Atlántico*
- *Colombia - El Caribe*

- *Chile*
- *El Salvador*
- *Guatemala*
- *México*
- *Panamá*

Business

- *Water*
- *Sanitation*
- *Electricity*
- *Gas*

Back to content

Sustainability Report

2023

Customer experience management

Grupo·epm

Customer experience management

For EPM, user customers are fundamental. *The Company is committed to a measurement model in which customers are the point of interest, in order to create an emotional bond. Under this model, it has been proposed to improve every moment experienced by customers in all interactions when using public services. The goal is to generate pleasant memories, positive impacts that will motivate their future utility decisions.*

Management in 2023

The result obtained by EPM in 2023 was 39 in the **NPS *(Net Promoter Score)*** indicator, an international indicator that measures how willing customers would be to recommend the brand based on the experience they had with the transaction carried out.

Transactional measurement qualifies the interactions or moments that customers experience in their relationship with the organization. This is done on a regular basis with quarterly analyses and follow-up. The indicator that accounts for this is the transactional NPS (Net Promoter Score), an international indicator that determines how willing customers are to recommend EPM based on the experiences they has had with the transactions carried out.

Transactional measurement makes it possible to identify root causes and, therefore, trigger the Experience Management model.

The result of the NPS indicator obtained for EPM in 2023 was 39. Twenty-two transactions were evaluated, including: petitions, complaints and claims (PQR) for energy, gas and water, energy damages, aqueduct, sewerage,

requests, requests for information or procedures, face-to-face and written complaints, among others. Clients expressed their transactional satisfaction with the attention and support provided and with the quality of the public service provided. They are dissatisfied with the delay and complexity of processes and procedures and the absence of solutions to some requests, especially requests made online.

In order to improve customer relations, taking into account that relationships are the reflection of all transactional experiences, EPM incorporated new techniques and factors in the measurement.

Relational measurement monitors six key strengths to help build relationships with customer users. The six key strengths are: fair treatment, certainty, control, status, belonging and enjoyment.

Based on this new challenge, EPM seeks to understand how customers recall the relationship they had with the Company and the emotions it creates.

Rational and emotional attitudes work together in a user's mind to build the relationship with brands. Therefore, the emotional connection with customers is taken into account, in order to strengthen the relationship and thus obtain positive results for the business.

The relational measurement, in addition to encompassing satisfaction, trust and permanence indicators, is evolving to provide an indicator of customer bonding or emotional attachment. It is also an input for feedback and the ongoing implementation of initiatives.

In 2023, the emotional attachment indicator was 48 (from 0 to 100). The results were particularly noteworthy in the large customer segment. Determining factors such as the availability of the service, the explicitness of the bill, the perception of rising service rates and executive service trigger dissatisfaction and lack of emotional attachment.

NPS indicator

Company	2023
EPM	39

Source: *Commercial Vice-Presidency.*

Contents of GRI standards and corporate indicators

EPM-07 *Customer Experience - NPS (Net Promoter Score)*

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*

Geography

- *Colombia – Antioquia*

Business

- *Water*
- *Sanitation*
- *Electricity*
- *Gas*

Back to content

Sustainability Report

2023

Safety in the provision of the service

Grupo·epm

Safety in the provision of the service

*In order to increase the efficiency levels of the entire organization, we apply a **strategic focus on optimizing operations**, which includes operational safety and quality standards for the delivery of services to customers and users. Plans are developed for risk prevention, mitigation and control, application of methods and technology with quality standards, as well as educational actions to ensure the implementation of good practices to protect the infrastructure and safety of employees, customers and the community.*

Management in 2023

Accidents in the provision of services Grupo EPM - (Quantity or number)

Item	2021	2022	2023
People burned by electrical accidents	90	115	**81**
Deaths due to accidents	51	66	**57**
Persons injured for other reasons	118	129	**198**
Total number of people involved in accidents	**259**	**307**	**336**

Source: *Executive Business Management Vice-Presidency.*

Incidents and claims for service provision - (Number or quantity)

Item		2021	2022	2023
Incidents or claims for damage or injuries to people	Received	70	56	**89**
	Settled in favor of the Company	40	40	**35**
	Settled in favor of the claimant	6	13	**14**
Incidents or claims for damage to property or belongings	Received	5,333	4,772	**5,806**
	Settled in favor of the Company	3,646	3,042	**4,771**
	Settled in favor of the claimant	1,150	1,436	**830**
Death incidents	Received	24	40	**29**
	Settled in favor of the Company	9	16	**9**
	Settled in favor of the claimant	1	14	**5**
Lawsuits or claims for loss of business	Received	0	34	**93**
	Settled in favor of the Company	0	19	**84**
	Settled in favor of the claimant	0	0	**22**
Actions filed by customers in connection with the service provision		86,015	37,589	**12,529**
Incidents of non-compliance with advertising regulations and commercial communication		0	10	**0**
Fines for non-compliance with regulations		46	56	**29**
Amount of fines for non-compliance with regulations		1,776	2,468	**9,822**

Source: *Office of the Secretary General, Executive Business Management Vice-Presidency, Business and Investment Management, Finance and Investment Vice-Presidency.*

Contents of GRI standards and corporate indicators

Content GRI 416-2	Cases of non-compliance related to health and safety impacts of product and service categories
Content GRI 417-3	Cases of non-compliance related to marketing communications
EU25	Number of injuries and fatalities involving company assets, including court rulings, settlements and legal cases pending illnesses

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Empresa de Aguas del Oriente Antioqueño
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- Empresa Eléctrica de Guatemala - Eegsa
- Tecnología Intercontinental -Ticsa
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - El Caribe
- Colombia - Malambo, Atlántico

- Chile
- El Salvador
- Guatemala
- México
- Panamá

Business

- Water
- Sanitation
- Electricity
- Gas

‹ Back to content

Sustainability Report 2023

Customer service

Grupo·epm

Customer service

*The purpose of Grupo EPM is to deliver a value **proposition for public utilities and a portfolio of solutions with an integral focus on the customer**, based on parameters such as timeliness, quality, coverage, innovation and service continuity, to leverage social development with equity, quality of life, competitiveness and sustainability.*

Management in 2023

In 2023, the **digital channel** if EPM had a 47% share of all service channels.

The **Ema chatbot,** more than a virtual assistant, is a digital customer service strategy that facilitates the self-management of different business processes; in addition, customers have access to the website, the application and other mobile devices located in the main offices.

During the year, ten million transactions were received through the customer service channels.

In the **face-to-face channel**, 939,645 transactions were handled, equivalent to 9% of the total number of transactions received in all channels. User customers have 12 points distributed in the main service offices, where they have at their disposal different self-management alternatives, including: 65 self-management modules, virtual service booths and telephone booths with a direct link to the service hotline and collection modules.

During the year, the **preferential customer service module for the corporate segment** was adapted to improve the value offer and contribute to the experience of this segment.

The La Sierra and San Roque **regional offices were physically adapted** due to the transfer of premises.

The **hotline** handled 4,217,711 calls, equivalent to 41% of the total number of transactions received in all channels. In addition, 2,040,688 outbound calls were made to announce scheduled service interruptions to customers and 9,036,045 text messages were sent out.

As for **written communications,** 280,087 transactions were processed, representing 3% of the total number of transactions received in all channels. In addition, 73,707 data updates were carried out, for an increase in the contact rate of more than 90%.

The **online channel** handled 4,805,839 transactions, equivalent to 47% of the total number of transactions received in all channels, making it the channel with the highest share of all. Since the pandemic, the use of digital media became very important, and EPM, through its digital strategy, has made improvements and enabled new transactions to facilitate the self-management by user customers of different processes of energy, gas, water, sewerage, among other value-added offers.

During 2023, no fines were received for failures to comply with regulations.

The Company has updated measures or protocols to comply with personal data protection regulations, with which guidelines are issued and actions are implemented to comply with the protection and processing of data and security in information systems:

- Privacy notice for the processing of personal data and compliance with the provisions of Law 1581 of 2012 and other regulations in force.
- Update of the schedule to Decree 1946 of 2013 of the General Management, by means of which EPM's personal data protection guidelines are approved.
- Business rules manuals for: use of IT resources, e-mail management, use of information and video surveillance.
- Decree 1866 of 2012 of the General Management, by means of which the guidelines associated with the information technology management processes in EPM are defined and adopted.
- General conditions for the contracting of goods and services by EPM, by means of which the third party assumes the obligation to protect the personal data to which it has access under the current agreement, as well as to comply with the obligations corresponding to it as data manager or data processor, in accordance with Law 1581 of 2012 and its regulatory decrees, as applicable.
- Habeas Data Procedure.
- Personal data protection mailbox.

- Information Security Policy and its guidelines, which was approved by the Board of Directors through minutes 1619 of December 13, 2016.
- Minutes of the international data conveyance agreement.
- Clauses in the model procurement document.
- Guideline 2017-LINGG-21: "Uniform Conditions Contract Guidelines for the provision of the residential public utility of Electric Energy in the Relationship process with clients/users."
- Guideline 2017-LINGG-22: "Uniform Conditions Contract Guidelines for the provision of the residential public utility of water supply and sewerage services in the Relationship process with clients/users."
- Implementation of the Demonstrated Responsibility Guide in relation to risk mapping, training and coaching, among others.
- Updating of the risk map for personal data processing.
- Instructions on processes that require authorization from the holder.
- Updating of the National Database Register.
- Official recognition of the Comprehensive Personal Data Management Program.
- Official recognition of minutes for the international conveyance of personal data, which is included in the model document.
- Playbook for security incident management.
- Information systems security: There is an information security and cybersecurity management system in place implemented as part of the "El Centinela" project, which was audited in 2020. According to the assessment tool of the Ministry of Information and Communication Technologies, the Company is at a "Managed" maturity level with a 99% implementation progress."

Transactions by EPM channel	2021	2022	2023
Written	168,157	178,590	**280,087**
Face-to-face	944,936	1,032,175	**939,645**
Telephone	5,526,055	7,187,369	**4,217,711**
Online	3,460,712	4,539,126	**4,805,839**

Source: *Commercial Vice-Presidency.*

Contents of GRI standards and corporate indicators

Content GRI 418-1 *Substantiated complaints regarding violations of customer privacy and loss of customer data*

EPM-04 *Service channels*

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*

Geography

- *Colombia – Antioquia*

Business

- *Water*
- *Sanitation*
- *Electricity*
- *Gas*

Back to content

Sustainability Report 2023

Climate change

Grupo·epm

Table of contents

Material issues

p.

Climate change 772

- Climate strategy management 780
- Climate change mitigation 798
- Adaptation to natural variability and climate change 806

Climate change

It refers to long-term changes in temperature and climate patterns. Human activities have been decisive especially due to fossil fuel burning, which has exacerbated climate variables, affecting ecosystems, infraestructure, and communities, specifically the most vulnerable population.

Facing the causes of climate change implies decarbonizing the economy and reducing the GHG (greenhouse gases) emissions, while facing the consequences and impacts requires adapting productive activities and increasing resilience.

However, climate change also creates opportunities.

Approaches

Reduction of GHG emissions: implement processes, projects and activities associated to the Grupo EPM's operations, through technological innovation and understanding the global trends in decarbonizing activities, to contribute to mitigate climate change.

Resilient infrastructure: construct and modernize the necessary infrastructure to provide the services that Grupo EPM offers, so it can adapt to variable events and climate change, thus guaranteeing service access, continuity, and quality.

Main achievements in 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Climate change mitigation	Self-generate 50% of the electricity required by Aguas Claras plant, by generating biogas.	Aguas Nacionales	The plant self-generated 84% of the required electrical energy. 48% of this energy came from the biogas produced in the anaerobic sludge digestion. This self-supply had two benefits in mitigating the GHG emissions: it reduced energy consumption of the national electric grid (that emits CO2, due to the thermal component) and it used the methane produced in the process.	Total
	Implement the solar panel Project in the Aguas de Malambo facilities (costs and lights supply of 100 kW).	Aguas de Malambo	It was impossible to begin the solar panels installation because some technical analyses were missing and because the contract formalization or inter-administrative agreement between the parties was needed.	Not achieved
	Inaugurate a new electric vehicle charging station (in the Acapulco toll, located in a road section of the Pacífico Tres concession, that develops road infrastructure in the Caldas, Risaralda and Antioquia departments.	CHEC	The Acapulco fast charging station was inaugurated in July and is operating normally. The station's remote communication (trials, communication system integration and readings) is advancing. CHEC acquired materials and equipment for building the charging station in the Fundadores shopping mall. It has 22kW and 7.4 kW chargers and is adjusted for parking two-wheeled electric vehicles. It will start operating on February of 2024. It has four public charging stations.	Total
	Achieve a 16% decrease in the emissions associated with the use of SF6 in the substations.	CENS	CENS recharged 1.65 kg of SF6 gas in the corrective and preventing equipment maintenance (only in the Ayacucho substation). This consumption represented a 61% decrease compared to the recharges performed in 2022.	Total

Main achievements in 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Climate change mitigation	Acquire two electric vehicles for the Company's fleet.	EPM Guatemala	EPM Guatemala bought two electric vehicles for its fleet: one for the distribution company (Eegsa) and another one for the transmission company (Trelec). At the end of 2023 it had eight electric cars.	**Total**
Climate change management	Estimate the 2022 GHG emission inventory (scopes 1 and 2) and create the annual GHG emission report.	EPM	EPM estimated the 2022 GHG emission inventory for Grupo EPM and it was published in the 2022 Sustainability Report. Look at the externally verified figures *chart GHG emission inventory scopes 1 and 2.* The emissions that originate from the natural gas consumption for thermal drying of sludge in the Aguas Claras plant were included for the first time.	**Total**
	Get an external verification to estimate the 2022 carbon footprint of Grupo EPM.	EPM	The external verification of the 2022 GHG emission inventory scopes 1 and 2, was performed by Icontec and included all the companies of Grupo EPM. The figures were monitored and tracked in a random sample between October and November. Icontec identified several improvement opportunities. Icontec delivered the GHG emission inventory verification report.	**Total**
	Verify the GHG emission reduction of the hydroelectric power plant Porce II (year 2022) and Hidroituango (six first months of operation), and of other priority projects and businesses.	EPM	EPM achieved the Cercarbono certification for the Porce III hydrolectric power plant until 2030. EPM compiled the necessary documentation and generated the monitoring reports for each one of these power plants. Icontec reviewed the documentation and carried out the appropriate interviews. The inspection of the machinery rooms was performed in December. See more information in the chart *2023 Projects for reducing GHG emissions.*.	**Total**

Challenges in 2024

Program, project, initiative or action	Challenges	Company	Business	Location
Adapting to climate change	Define the methodology for updating the hydrologic, hydraulic and climate methodology of the supplying drainage basins to implement them progressively according to the results obtained on the basins of interest.	EPM	Water and sanitation	Colombia - Antioquia
	Apply the climate risk distribution matrix in 7 projects that are in drafting stage and update it on 15 processes.	CENS	Energy transmission and distribution	Colombia – Norte de Santander
	Develop consultancy for performing a study about the energy system's vulnerability in face of climate change, to find an adaptive plan.	Delsur	Energy transmission and distribution	El Salvador
	Apply the climate risk matrix in 56 workplaces of the environmental management process.	ESSA	Energy transmission and distribution	Colombia - Santander
Climate change mitigation	Generate more tan 60% of the electricity that is required to operate the Aguas Claras power plant.	Aguas Nacionales	Water and sanitation	Colombia - Antioquia
	Install photovoltaic solar systems in the administrative facilities of Aguachica, Tibú and Pamplona.	CENS	Energy - Energy transmission and distribution	Colombia - Norte de Santander
	Replace 10 switches with SF6 content for another insulating media in the Insula and Irra substations.	CHEC	Energy - Energy transmission and distribution	Colombia - Manizales
	Acquire five electric vehicles for the corporate fleet to substitute combustion cars, install an electric charger in the Company, install four electric chargers, 500 kWp in solar panels and develop 41 energy efficiency power quality studies for customers.	EPM Guatemala	Energy - Energy transmission and distribution	Guatemala
	Inject 840,000 m^3 of biomethane to the existing natural gas networks that have been treated by the biogas project in the San Fernando plant and perform 1,500 conversions to natural gas by reconverting vehicles and hybrids systems.	EPM	Energy - Gas	Colombia - Antioquia

Sustainable Development Goals

Associated stakeholders

- *Colleagues*
- *Community*
- *State*

Contents of GRI standards and corporate indicators

Content GRI 3-3	*Management of material topics*
Content GRI 201-2	*Financial implications and other risks and opportunities due to climate change*
Content GRI 305-1	*Direct (Scope 1) GHG emissions*
Content GRI 305-2	*Energy indirect (Scope 2) GHG emissions*
Content GRI 305-3	*Other indirect (Scope 3) GHG emissions*
Content GRI 305-4	*GHG emissions intensity*
Content GRI 305-5	*Reduction of GHG emissions*
Content GRI 305-6	*Emissions of ozone-depleting substances (ODS)*
Content GRI 305-7	*Nitrogen oxides (NOx), sulfur oxides (SOx) and other significant air emissions*

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Hidroecológica del Teribe - HET
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Risaralda
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - El Caribe

- Chile
- El Salvador
- Guatemala
- México
- Panamá

Business

- Water
- Sanitation
- Electricity
- Gas
- Waste

Back to content

Sustainability Report

2023

Climate strategy management

Grupo·epm

Climate strategy management

Climate change implies challenges for humanity and world economy, especially for achieving sustainable human development. Therefore, it is important to address it and make a comprehensive analysis from enviromental, social, political, economic, technological, regulatory, and cultural perspectives to determine business positions.

By defining strategies with these scopes in mind, entities can face the challenge that business growth and development pose, considering climate impact.

Management in 2023

Grupo EPM strengthened the **sustainable mobility** ecosystem in the territories where it is present.

- At the end of 2023 there are 5,279 plug-in electric vehicles and 1,700 that are converted to natural gas that circulate mainly in the Aburrá Valley.

- EDEQ, allied with the Mayor's Office of Armenia, installed a charging station that operates with solar energy, is free and can simultaneously serve eight two-wheeled electric vehicles (motorcycles, bicycles, and scooters).
- EPM Guatemala installed two charging stations for electric vehicles (one of 40 kW and another one of 150 kW) for customers.

Grupo EPM contributed to the technology change on streetlights in different urban centers:

- EPM changed 46,404 high-intensity discharge sodium lamps, saving 10.13 GWh for the city of Medellín.

- EPM Guatemala replaced 4,153 mercury lamps and 3,749 sodium lamps for 7,902 LED lamps in the Antigua Guatemala, Fraijanes and Palín municipalities, saving 228.81 MWh per month.
- ENSA installed 16,040 LED lamps to substitute conventional ones.

EPM received technical support from the Ministry of Mines and Energy through the National University of Colombia to update and adjust the comprehensive business climate change management plan in the generation and electricity transmission businesses, given its participation in the Carbon Neutral Electric Sector Alliance.

EPM allocated the hiring process for building a free encapsulated substation of SF_6 , as insulating gas, that replaces this compound for a technology that is free of greenhouse gas emissions.

The Ministry of Mines and Energy of Colombia issued Legal Ruling 40619 on October of 2023, to adopt transitory measures to electricity exportation during the El Niño-Southern Oscillation. These measures forced the energy generation with liquid fuels.

Complying with this legal ruling meant EPM emitted 105,490.79 tCO_2e.

If this wouldn't have had a mandatory nature, GHG emission of scope 1 and 2 would have been 262,737.50 tCO_2e for EPM.

The energy transmission and distribution business for EPM advanced by installing 19 photovoltaic solar solutions for rural educational institutions in regions that were not interconnected. They will begin operating in 2024.

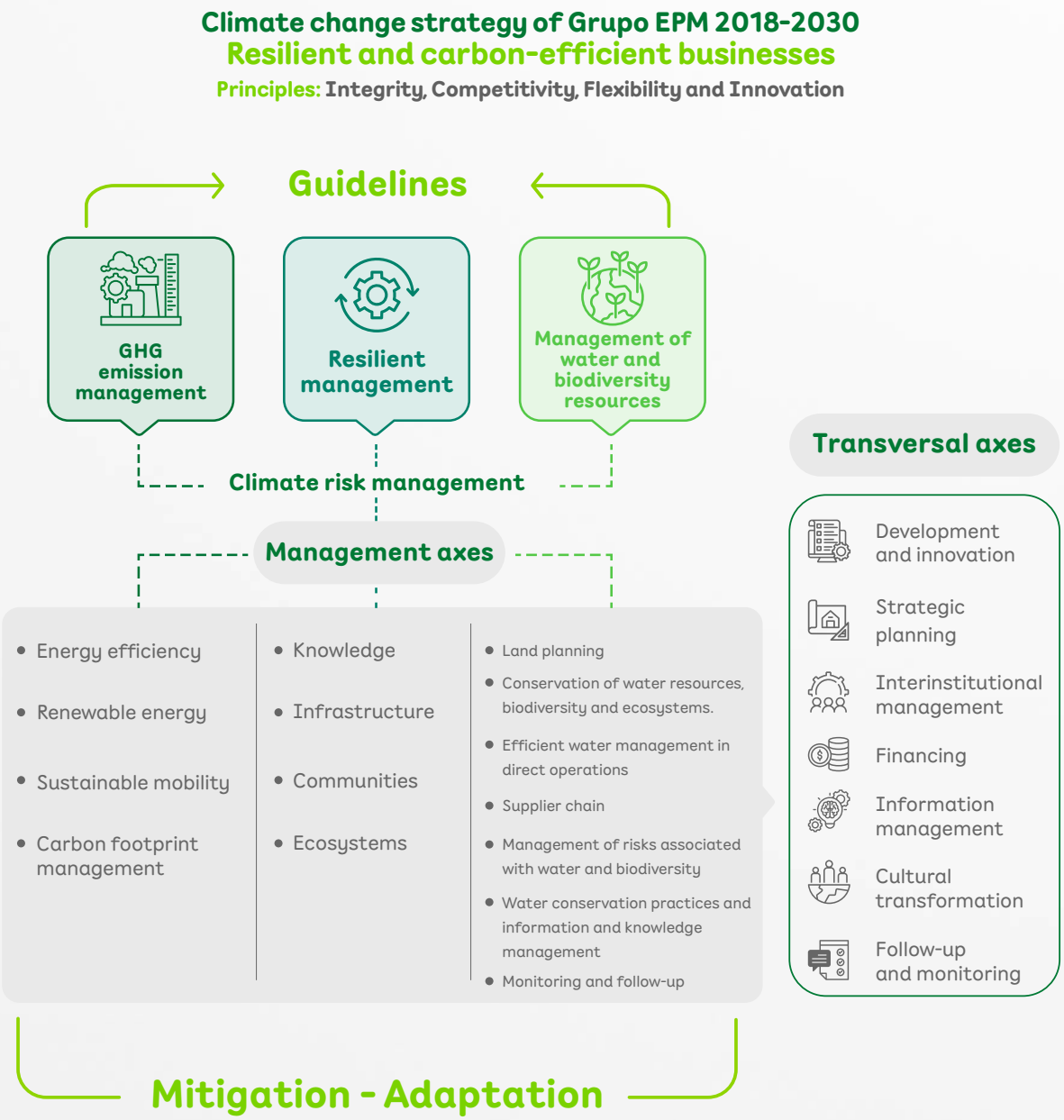
Climate change strategy Grupo EPM 2018-2030

Achieve resilient and carbon-efficient businesses when including the climate variable in the analysis and decision making, minimize the climate vulnerability in face of the climate risks and develop low GHG emission operations in each of the regions where Grupo EPM offers its services.

It has **three guidelines**:

- **GHG emission management:** quantify, control, and reduce GHG emissions in all the operations and businesses of Grupo EPM, until where it is technically and economically possible.

- **Resilient management:** permanently assess climate risks and include the necessary measures to prevent and control the impact of climate events on Grupo EPM.
- **Water and biodiversity management:** contribute to water and biodiversity conservation by comprehensively managing ecosystems and the risks that are associated with climate change and variability.



Greenhouse gas emission inventory

Grupo EPM estimates its carbon footprint according to the "Greenhouse gas protocol. Corporate accounting and reporting standard" and the documents of the Intergovernmental Panel on Climate Change "Guidelines for National Greenhouse Gas Inventories" (2006 and 2019 refinement). The 2023 GHG emission inventory (scope 1 and 2) of the Group was 1,839,486. tCO_2e and the one of EPM was 368,22 tCO_2e.

The reduction of 17.93 % in the GHG emissions of Grupo EPM and of 56.92 % in EPM's inventory, compared with 2022 is explained mainly with the decrease of La Sierra thermal power station's generation, which gave the national network 214.84 GWh in 2023, while in 2022 it generated 1,214.33 GWh. However, the proportion of fuels for energy production changed: in 2023 6.28 million m^3 of natural gas and 13.65 million gallons of diesel were used, compared to 282.36 million m^3 and 0.26 million gallons in 2022. Liquid fuel generates a larger amount of GHG emissions.

The inventory is calculated past due year. Grupo EPM is in the process of establishing GHG reduction goals.

Scope 1 includes direct emissions that come from sources that the Company owns or controls and that originate in activities such as the use of fossil fuels for generating energy and own vehicle operation, having reservoirs and gas leaks in distribution networks, among others. Besides the GHG emissions, 3,023.74 tCO_2e of biogenic emissions were produced in Grupo EPM (2,260.76 tCO_2 correspond to EPM), that come from using palm oil biodiesel and ethanol in the fossil fuels..

Scope 2 includes emissions that come from the electricity consumption of the interconnected system of each country and the ones associated with the energy loss in the distribution networks.

GHG emission inventory in scopres 1 and 2 (tCO_2e)

Grupo EPM	2019	2020	2021	2022	2023
Scope 1	267,862.00	2,093,724.27	1,952,083.43	1,861,568.01	**1,400,616.83**
Scope 2	644,157.00	753,208.20	788,269.41	379,807.67	**438,868.31**
Total	912,019.00	2,846,923.47	2,740,352.83	2,241,375.68	1,839,485.14

EPM	2019	2020	2021	2022	2023
Scope 1	236,298.57	933,787.30	825,989.94	783,877.81	**254,926.71**
Scope 2	162,298.28	220,896.48	148,302.94	70,838.14	**113,301.89**
Total	398,596.85	1,154,683.78	974,292.88	854,715.95	368,228.60

Source: *Idsos application.*

Note: The 2023 Group inventory includes the GHG emissions of: EPM, ESSA, CHEC, EDEQ, CENS, Afinia, ENSA, Delsur, EPM Guatemala, HET, Aguas de Malambo, Aguas Regionales EPM, Aguas Nacionales, Aguas del Oriente, Emvarias, Adasa and Ticsa.

The consolidation approach is operational control, that includes installations, processes, and operations that the organization controls.

Scope 1 includes CO_2, CH_4, N_2O, SF_6 and HFC. Scope 2 includes CO_2, CH_4 y N_2O, O, although emission factor of the national interconnected system (SIN) is expressed in tCO_2e. As of the date, the emissions of PFC or NF_3 haven't been identified in the Group's activities.

Only since 2022 have the refinements to the 2019 IPCC guidelines and the AR6 (Assessment Report) global warming potentials been used. The same applies for the CH_4 y N_2O differential emission factors, according to the fuel use on a fixed source (stationary) or mobile.

Base year is 2020 because it has complete and quality information, it included Afinia for the first time and the emissions from La Pradera landfill, operated by Emvarias.

For the first time, Ticsa emissions were included in the 2023 inventory. The 2022 figures were adjusted after an external verification carried out by Icontec.

The indirect GHG emissions of EPM that originate in the SIN's energy consumption (calculated according to the location) increased to 24,297.2 tCO_2e, while the ones of the Group were 71,910.66 tCO_2e. The gross value calculation of indirect GHG emissions, according to the market, is not applicable, since EPM does not buy energy through contracts that have renewable energy certificates nor is there a calculation of the emission factor of the residual electrical matrix in Colombia

To calculate the carbon footprint, the following information was used:

CO_2 and CH_4 emission factors in reservoirs: IPCC guidelines of 2006 for the national inventory of greenhouse gases. 2019 Refinement. Vol. 4. Chap. 7. Charts 7.9, 7.13 y 7.15.

Gas emission factors in refrigerating and air conditioning systems: 2019 Refinement. IPCC guidelines of 2006 for the national inventory of greenhouse gases. Chart 7.9. Volume 3. Chapter 7 Emissions from the fluorinated substitute for the substances that are depleting in the ozone layer.

Fuel emission factors: FECOC 2016. Unidad de Planeación Minero Energética (UPME), Ministry of Mines and Energy of Colombia.
Potentials for global warming: *https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf*

Emission factor of Colombia's electrical grid: 2023 preliminary data published by XM: *https://www.xm.com.co/noticias/6565-resultado-preliminar-calculo-del-factor-de-emision-para-el-inventario-de-gases-de*

Emission factors of the electric grid of each country (most recently published official information):

- Chile 2023: *http://energiaabierta.cl/visualizaciones/factor-de-emision-sic-sing/*
- El Salvador 2021: *https://www.studocu.com/latam/document/universidad-de-el-salvador/sistemas-de-seguridad-y-salud-ocupacional/fere-el-salvador-2021-direcion-de-energia-hidrocarburos-y-minas/65282286*
- Guatemala 2022: *https://mem.gob.gt/que-hacemos/area-energetica/publicaciones/estadisticas/balance-energetico/*
- México 2023: *https://www.gob.mx/cms/uploads/attachment/file/896217/aviso_fesen_2023.pdf*
- Panamá 2022: *https://www.energia.gob.pa/wp-content/uploads/2023/11/FACTOR-DE-EMISION-DEL-SIN-PANAM%C3%81-2022-V5-CR.pdf*

Detail of 2023 emissions scope 1 and 2 of Grupo EPM according to the activity

2023 emissions GrupoEPM

1,839,486.36 tCO_2e (100.00 %)

Relleno sanitario La Pradera 1,058,834.00 tCO_2e (57.56 %)	**Electricity losses in distribution networks** 366,957.65 tCO_2e (19.95 %)	**Fossil fuel consumption to generate electricity in thermal power stations** 169,539.55 tCO_2e (9.22 %)
Electrical energy consumption from the grid at facilities 71,910.66 tCO_2e (3.91 %)	**Emissions due to anaerobuc digestion of sludge in sewage treatment plants** 48,896.47 tCO_2e (2.66 %)	**Fossil fuel consumption in vehicles and fixed equipment** 27,196.50 tCO_2e (1.48 %)
Fugitive emissions in reservoirs 24,263.38 tCO_2e (1.32 %)	**Gas leaks in distribution networks** 20,169.65 tCO_2e (1.10 %)	**Natural gas consumption** 16,104.48 tCO_2e (0.88 %)
N_2O emissions in treatment plants 12,996.01 tCO_2e (0.71 %)	**Emissions for leachant tratment** 8,619.28 tCO_2e (0.47 %)	**SF_6 leaks in energy generation, transmission and distribution** 6,660.54 tCO_2e (0.36 %)
Emissions due to leaks in fire extinguishing systems 2,734.16 tCO_2e (0.15 %)		**Refrigerant substances in air conditioning** 2,614.66 tCO_2e (0.14 %)
Composting of organic waste 1,778.75 tCO_2e (0.10 %)		**Consumption of liquefied petroleum gas** 210.61 tCO_2e (0.01 %)

Source: *Idsos application.*

Note: In 2023, 57.56 % of the GHG emission of Grupo EPM came from waste decomposition in the landfill and 29.17 % were generated due to energy losses in the grid and the fossil fuel consumption to generate energy in two thermal power stations.

Detail of 2023 emissions scope 1 and 2 of EPM according to the activity

2023 GHG Emissions EPM

368,228.60 tCO_2e (100.00 %)

Fossil fuel consumption to generate electricity in the thermal power station 150,906.00 tCO_2e (40.98 %)	**Electricity losses in distribution networks** 89,004.61 tCO_2e (24.17 %)	**Emissions produced by anaerobic digestion of sludges in sewage treatment plant** 48,882.66 tCO_2e (13.28 %)
Electrical energy consumption from the grid at facilities 24,297.28 tCO_2e (6.60 %)	**Fugitive emissions in reservoirs** 23,827.58 tCO_2e (6.47 %)	**Gas leaks in distribution networks** 20,169.65 tCO_2e (5.48 %)
Fossil fuel consumption in vehicles and fixed equipment 3,432.46 tCO_2e (0.93 %)	**SF_6 leaks in energy generation, transmission and distribution** 3,121.82 tCO_2e (0.85 %)	**N_2O emission in sewage treatment plant** 1,790.50 tCO_2e (0.49 %)
Composition of organic waste 1,778.75 tCO_2e (0.48 %)	**Refigerant substances in air conditioning** 741.37 tCO_2e (0.20 %)¡	**Liquefied petroleum gas consumption** 210.61 tCO_2e (0.06 %)
Natural gas consumption 52.18 tCO_2e (0.01 %)		**Emissions due to leaks in fire extinguishing systems** 13.14 tCO_2e (0.004 %)

Source: *Idsos application.*

Note: 40.98 % of the GHG emissions in EPM during 2023 originated in the use of diesel and natural gas that came from electrical energy generation.

Detailed GHG emissions scope 1 and 2 inventory (tCO_2e) Grupo EPM

Company	2019	2020	2021	2022	2023
Emvarias	16,557	1,012,221	931,204	1,029,437	**1,076,964**
EPM	398,597	1,154,684	974,293	854,716	**368,229**
Afinia	N.A.	N.A.	344,926	67,247	**112,770**
EPM Guatemala	87,890	91,236	96,077	97,880	**48,334**
ESSA	57,479	71,858	50,756	29,582	**41,293**
Adasa	1,108	1,174	1,002	49,428	**40,960**
CHEC	22,491	74,403	49,767	15,828	**38,071**
ENSA	166,388	173,664	74,865	27,593	**28,477**
CENS	38,183	50,020	35,319	18,299	**27,840**
Aguas Nacionales	N.A.	83,749	138,264	29,424	**27,583**
Delsur	107,666	107,756	17,454	11,298	**10,528**
Aguas Regionales	6,804	14,086	19,694	5,615	**9,746**
EDEQ	7,744	8,591	5,658	4,263	**6,765**
Aguas de Malambo	854	2,793	780	597	**916**
Ticsa	N.A.	N.A.	N.A.	N.A.	**836**
HET	228	658	266	141	**140**
Aguas del Oriente	34	41	28	27	**36**
Grupo EPM	**912,023**	**2,846,934**	**2,740,353**	**2,241,376**	**1,839,486**

Source: *Idsos application.*

Note: the GHG emission inventory estimate is mainly based on activity data.

The significant figure variations from one year to the next have several causes: identification of new GHG emission sources, quality and entirety of the information, improvement in the data collection, among others.

GHG emission factor

The GHG emission factor of EPM in 2023 was 0.0198 tCO2e/MWh, while the emission factor of SIN (National Interconnected System) was 0.1728 tCO2e/MWh. EPM's emission factor is under the national emission factor.

By increasing the SIN emissions in Colombia from 0.112 tCO2e/MWh (in 2022) to 0.1728 tCO2e/MWh, the emissions that originate from electricity loss in energy distribution and the ones associated to the network electricity consumption also increase.

EPM emission factor and SINemission factor

Emission factor (tCO_2e/MWh)	2019	2020	2021	2022	2023
EPM	0.0278	0.0797	0.0650	0.0454	**0.0198**
SIN	0.166	0.203	0.126	0.112	**0.1728**

Source: *EPM, Legal rulings UPME 285 of December 24 of 2020, 382 of November 2 of 2021, 320 of August 5 of 2022 and 762 of November 22 of 2023 and preliminary estimate of the XM emission factor of SIN, that is applicable to the year 2023.*

Note: the SIN emission factor is what the customers of companies providing public electricity service should use to calculate the GHG emission inventory, especially those that originate in the electricity consumption of the national grid.

SIN emission factor:: *https://www.xm.com.co/noticias/6565-resultado-preliminar-calculo-del-factor-de-emision-para-el-inventario-de-gases-de* (January 26 of 2024).

Interinstitutional management

Searching for the business group's carbon neutral operation, EPM continued participating in the Carbon Neutral Electric Sector Alliance (an initiative promoted by the Ministry of Mines and Energy), the Regional Climate Change Node of Antioquia, the interinstitutional thematic committee for climate change in the District of Medellín and Asocarbono (Colombian Association of Actors in the Carbon Market).

EPM Guatemala participated in the first two national workshops for designing the 2050 National Decarbonization Strategy of Guatemala, in the energy and transportation sectors. Eegsa (distribution company of EPM Guatemala) continued the agreement with the Guatemala municipality for supplying information to estimate the GHG emissions.

Financial products that originated with climate change

- **Renewable Energy Certificates (REC), certificates of origin or green energy certificates:** during 2023 EPM sold 3,033,547 REC that came from the hydroelectric power stations Tasajera, La Vuelta, La Herradura and Porce II, with a revenue of COP 6,525 million.
- **GHG Certified Emission Reduction (CER):** to offer carbon credits to Colombian companies that are levied with the carbon tax or to compensate their future footprint, EPM advanced during 2023 in managing GHG projects by externally verifying:
  - 1,686,013 tCO_2e reduced in the operation of the hydroelectric power station Porce III during 2022, that correspond to 4,969,109 MWh-year of generated energy.
  - 614,116 tCO_2e reduced in the operation of the hydroelectric power station Hidroituango during the first semester of 2023, that correspond to generating 1,788,119 MW.

EPM estimated the reduced emissions during 2023 for the operation of the mini hydroelectric power stations La Vuelta and La Herradura (65,088 tCO_2e) and those corresponding to the Porce III power station (1,189,100 tCO_2e).

In 2023 1,750,000 carbon credits were closed and 1,125,510 credits were sold, with an income of COP 18,657 million.

EPM´ s GHG emission reduction projects registered in carbon standards

Infrastructure	Standard	Accreditation period	Estimated reduced tCO2e	Reduced tCO_2e		
				2021	2022	2023
Mini hydroelectric power stations La Vuelta and La Herradura	Clean Development Mechanism CDM	2005-2025	84,221	81,596	66,709	**65,088**
Hydroelectric power station Porce III	Cercarbono	2011 - 2030	1,174,382	1,555,912	1,686,013	**1,189,100**
Hydroelect ric power station Hidroituango	*Verified Carbon Standard VCS*	2018-2027	4,383,088	NA	NA	**614,116**

Source: *Sustainability Management.*

Note: the estimated reduced tCO_2e correspond to those registered in the design document of the current project.

The reduce tCO_2e of La Vuelta and La Herradura in the period 2021-2023 have not been verified yet, the same as the ones of Porce III in 2023.

The tCO_2e of 2021 and 2023 in Porce III were already verified.

The tCO_2e of 2023 for the hydroelectric power station Hidroituango correspond to the reduced emissions of the station's operation in the first semester of 2023. EPM is waiting for the report and the verification declaration given by the competent body to send them to the VCS so it can be certified, and the carbon credits can be issued.

The emission reduction verification is performed on the expired year.

Carbon footprint management with suppliers and contractors

EPM structured a long-term proposal to promote carbon neutral operations in suppliers and contractors, so other interest groups can also reduce their carbon footprint, and thus have a greater global effect. To do so, a methodology to identify the contractors that generate the biggest amount of GHG emission was developed and a pilot test will be carried out with them to close the gap between climate change and the daily reality of their activities.

In the annual event with suppliers and contractors, there were lectures and technical conferences related to climate change management, hydrogen as the future fuel and climate risk management in the TCFD (Task Force on Climate Related Financial Disclosures) requirements.

Additionally, informative and educational content was sent related to GHG emissions, climate change, global warming, types of GHG, activities that cause it and mitigation actions.

EPM Guatemala carried out a sustainability workshop with suppliers and contractors, where it presented Grupo EPM's climate change strategy.

Carbon footprint management with customers and users

Grupo EPM offers low carbon emission solutions so that its customers and users can also contribute to mitigating GHG from their businesses, institutions and homes:

EPM has an accumulated of 27.7 MWp in solar photovoltaic generation systems for self-consumption of big energy consumers (through energy contracts), 6.1 MWp in installation and a total of 25.33 GWh-year generated in 2023.

In 2023, the company installed 661 kWp in solar photovoltaic generation systems for self-consumption in homes, and small and medium-sized enterprises in Colombia.

In Cúcuta, CENS installed nine solar photovoltaic solutions, with an installed capacity of 310 kWp.

Carbon footprint management with Grupo EPM People

The business group contributes to the sustainable mobility global efforts by changing the behavior of its employees, so they reduce the GHG emissions when travelling to carry out operational activities and when commuting between home and work:

EPM had 2,940 active teleworkers and 581 employees in the program "cycling to work", it kept five-tiered flexible schedules, activated loans for acquiring environmentally friendly means of transportation, and created different infrastructure initiatives focused on strengthening the sustainable business mobility plan.

Aguas Nacionales promoted bicycle use for transporting personnel inside the facilities of Aguas Claras plan.

Aguas Regionales EPM promoted the use of less polluting means of transportation according to the geographical context and the enabling conditions: bicycles, walks, telework, car-pooling, day without cars, among others.

EPM's GHG emission inventory (scope 3)

EPM's GHG emission inventory scope 3

Category	tCO_2e		
	2021	2022	2023
Fuels	57,269	59,408	26,049
Use of sold products	2,395,661	2,648,832	3,531,484
Other categories*	40,910	47,650	47,650
TOTAL	2,493,840	2,755,890	3,605,183

Source: *Conservation and Development Directorate.*

Note: *Other categories correspond to: Goods and services, capital goods, waste, land and air transportation, employee travelling.

The emission factor used for electrical energy in sold products is the preliminary emission factor calculated by XM that are applicable to the year 2023: *https://www.xm.com.co/noticias/6565-resultado-preliminar-calculo-del-factor-de-emision-para-el-inventario-de-gases-de*

The methodology used to calculate scope 3 is the Corporate Value Chain (Scope 3) Accounting and Reporting Standard - Supplement to the GHG Protocol Corporate Accounting and Reporting Standard. The GHG global warming potentials correspond to AR6 (Assessment Report). The emission factors of the fossil fuels correspond to those indicated by the UPME. The other factors are taken from the IPCC.

Scope 3 includes the rest of the indirect GHG emissions that are originated in the Company's activities and that don't come from own or controlled sources: acquired production materials, work trips, transportation of raw material, fuels and products, and emissions that originate in the consumption of products or services offered by the Company, among others. The only gas included in this calculation is CO2. The base year is 2012, since it was the first year in which the calculation of this scope was performed for the company, and it was thoroughly done to estimate each one of the categories that applied to the company.

There are no biogenic emissions for Scope 3 in the current year.

Reduced or avoided GHG emissions for implementing actions in 2023

Avoided or reduced GHG emissions Grupo EPM 2023

2,333,729.53 tCO_2e (100.00 %)

Operation of projects that are registered in carbon standards 1,868,304.00 tCO_2e (80.06 %)	Energy generation from solar panels in own facilities 349,863.33 tCO_2e (14.99 %)	Methane combustion and transformation to CO_2 in treatment plants 66,854.18 tCO_2e (2.86 %)
Self-supplied electrical energy from hydroelectric power stations 26,217.64 tCO_2e (1.12 %)	Energy generation from solar panels in customer´ s facilities 7,183.81 tCO_2e (0.29 %)	Electrical energy loss management in distribution networks 5,054.13 tCO_2e (0.22 %)
Self-supplied electrical energy from biogas in treatment plants 4,912.36 tCO_2e (0.21 %)	Substitution to LED lights in urban streetlights 2,135.41 tCO_2e (0.09 %)	Thermal district operation 1,378.00 tCO_2e (0.06 %)
Natural gas loss management 900.33 tCO_2e (0.04 %)	Energy efficiency in own facilities 800.24 tCO_2e (0.03 %)	SF_6 loss management 126.12 tCO_2e (0.01 %)

Source: *Idsos application.*

Note: the operation of EPM projects that are registered in carbon standards and the implementation of GHG emission reduction initiatives (scopes 1, 2 and 3) equaled 2,333,729.5 tCO_2e. Of said actions, energy generation from solar panels in customers' facilities, substitution of LED lights in urban streetlamps and thermal district operation contribute to reduction of scope 3. GHG reduction based on the operation of projects registered in the carbon standards, could reduce the carbon footprint in scopes 1 and 2, if that were the decision. All other actions correspond to scope 1 and 2.

Even if the following emissions are not GHG, they are included in the climate change chapter because it is the one that addresses emissions into the atmosphere.

Sulfur oxide (SO_x) and nitrogen oxide (NO_x) emissions

SO_x and NO_x emission (t/year)

Grupo EPM	2021 (1)		2022 (2)		2023 (3)	
Emission source	NO_x	SO_x	NO_x	SO_x	NO_x	SO_x
Termoeléctrica La Sierra (muestreo isocinético)	0.00	116.28	87.30	0.12	**140.48**	**20.88**
Transportation of personnel, supplies and products in the Group's own vehicles	58.42	0.35	90.54	0.60	**72.02**	**0.50**
Adasa	16.60	0.88	45.61	2.42	**35.24**	**1.87**
Total	75.02	117.51	223.45	3.14	247.75	23.25

EPM	2021 (4)		2022 (5)		2023 (6)	
Emission source	NO_x	SO_x	NO_x	SO_x	NO_x	SO_x
La Sierra thermal power station (isokinetic sample)	0.00	116.28	87.30	0.12	**140.48**	**20.88**
Transportation of personnel, supplies and products in EPM's own vehicles	5.75	0.05	10.66	0.09	**17.17**	**0.14**
Total	5.75	116.33	97.96	0.21	157.65	21.02

Source: *EPM (emission factors obtained from AP-42 of EPA (Environmental Protection Agency) of United States.*

Note:

(1) Includes EPM, Adasa, Aguas de Malambo, Aguas del Oriente, Aguas Regionales, CENS, CHEC, Delsur, Emvarias, ESSA and Ticsa, with 552 cars and SUVs, 309 motorcycles, 472 trucks and buses.

(2) The same companies mentioned in number (1), with 732 cars and SUVs, 341 motorcycles, 541 trucks and buses.(3) Además de las mencionadas en el numeral (1), comprende Afinia, EDEQ, EPM Guatemala, ENSA, con 639 automóviles y camionetas, 348 motocicletas, 393 camiones y buses.

(3) Besides the companies mentioned in number (1), it includes Afinia, EDEQ, EPM Guatemala, ENSA, with 639 cars and SUVs, 348 motorcycles, 393 trucks and buses.

(4) Corresponds to 254 cars and SUVs, 278 motorcycles, 87 trucks and buses, owned by EPM.

(5) Includes 247 cars and SUVs, 313 motorcycles, 87 trucks and buses, from EPM's own fleet.

(6) Includes 267 cars and SUVs, 315 motorcycles, 98 trucks and buses, owned by EPM.

The increase of NO_x (nitrogen oxides) and SO_x (sulfur oxides) are due mainly to a greater generation of energy from liquid fuel in La Sierra thermal power station in the last months of 2023.

Calculations are made based on the consumption of compounds and emission factors obtained from EPA. The different emissions it considers are: COV (g/km), CO(g/km), CO_2 (g/km), NO_x (g/km), SO_2 (g/km), MP (g/km) and benzene (g/km). They are calculated according to the type of vehicle, equipment and fuel used by the Company.

Other emissions: benzene, atmospheric particulate matter, carbon monoxide (CO) and volatile organic compounds (VOC)

Benzene, particulate matter, carbon monoxide and volatile organic compounds emissions (t/year)

Grupo EPM	Benzene	Particulate matter	CO	COV
2021 (1)	0.10	2.70	49.09	9.77
2022 (2)	0.14	4.93	89.10	19.90
2023 (3)	**0.11**	**3.64**	**70.58**	**15.14**

EPM	Benzene	Particulate matter	CO	COV
2021 (4)	0.01	0.31	7.60	1.57
2022 (5)	0.02	0.41	12.99	2.81
2023 (6)	**0.03**	**0.57**	**17.15**	**3.43**

Source: *EPM.*

Note:

(1) Includes EPM, Adasa, Aguas de Malambo, Aguas del Oriente, Aguas Regionales, CENS, CHEC, Delsur, Emvarias, ESSA and Ticsa, with 552 cars and SUVs, 309 motorcycles, 472 trucks and buses.

(2) The same companies mentioned in number (1), with 732 cars and SUVs, 341 motorcycles, 541 trucks and buses.

(3) Besides the companies mentioned in number (1), it includes Afinia, EDEQ, EPM Guatemala, ENSA, with 639 cars and SUVs, 348 motorcycles, 393 trucks and buses.

(4) Corresponds to 254 cars and SUVs, 278 motorcycles, 87 trucks and buses, owned de EPM.

(5) Corresponds to 247 cars and SUVs, 313 motorcycles, 87 trucks and buses of EMP's own fleet.

(6) Includes 267 cars and SUVs, 315 motorcycles, 98 trucks and buses, owned by EPM.

The emission decrease is mainly due to the drop in the use and report of various vehicles in all Grupo EPM, specifically in the number of trucks and buses.

The emission variation is explained by the 2023 increase of the own vehicle fleet compared to previous years. Additionally, the quality and quantity of reported elements improved.

Contents of GRI standards and corporate indicators

Content GRI 201-2	Financial implications and other risks and opportunities due to climate change
Content GRI 305-1	Direct (Scope 1) GHG emissions
Content GRI 305-2	Energy indirect (Scope 2) GHG emissions
Content GRI 305-3	Other indirect (Scope 3) GHG emissions
Content GRI 305-4	GHG emissions intensity
Content GRI 305-5	Reduction of GHG emissions
Content GRI 305-6	Emissions of ozone-depleting substances (ODS)
Content GRI 305-7	Nitrogen oxides (NOx), sulfur oxides (SOx) and other significant air emissions

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Hidroecológica del Teribe - HET
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Risaralda
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - El Caribe

- Chile
- El Salvador
- Guatemala
- México
- Panamá

Business

- Water
- Sanitation
- Electricity
- Gas
- Waste

Back to content

Sustainability Report

2023

Climate change mitigation

Grupo·epm

Climate change mitigation

Set of actions, initiatives and projects developed by Grupo EPM to avoid and reduce GHG emissions.

Management in 2023

The energy distribution companies of EPM set goals for reducing SF6 losses, carried out visual inspections and monitored equipment pressures, measuring and reporting the amount of gas required in preventive or corrective maintenance in substations. They also advanced in the insulating gas substitution.

The energy transmission and distribution business of EPM substituted 38 SF_6 switches with compressed air technology.

ENSA made an inventory of SF_6 switches in the 15 substation: 72 switches and 2,375 installed kilograms of this gas.

SF_6 is the GHG with the biggest potential of global warming: 24,300 tCO_2e for each tSF_6. The efforts to reduce or avoid using this gas greatly impact global warming.

EEDEQ earned the EDGE certification on its main building, which acknowledges the excellence in the structural and spatial design, by being efficient in the use of energy, water and materials.

The Gas business managed to ensure that only 0.20% of the total distributed gas leaked into the atmosphere. These emissions have methane and happen due to infrastructure damage that can be prevented when third parties are informed of the network location before an excavation takes place. EPM improved the leak report systems in the last three years.

Grupo EPM advanced in implementing **actions for reducing GHG emissions**, with:

Energy efficiency

The EPM companies that distribute electrical energy established goals for reducing losses and continued developing initiatives to decrease them: installation and maintenance of macro gauges, facility reviews, gauge replacements, linking users pending to be formalized, identification and normalization of illegal transformers in rural and difficult access areas, among others.

Even if the electrical energy demand increased in 55, Delsur decreased the technical losses by developing 10 repowering circuit projects and converting the network voltage from 4.1 kV to 23 kV. It carried out a non-technical loss control plan by installing macro gauges in transformers, performing maintenance in gauges and building armored networks in certain areas.

ESSA recovered 145.18 GWh-year, installed new technologies to monitor the electrical energy consumption of industrial customers, remodeled the network of high-loss transformers, checked commercial and industrial customers that have a high probability of fraud or anomaly, and implemented daily monitoring of consumption at commercial borders between agents and energy received to timely detect failures. These actions imply a carbon footprint decrease because they require less travelling and an efficient energy demand of SIN.

CENS replaced 85 obsolete air conditioning units in different facilities.

For more information, check Loss management, in the *Quality and safety of products and services* chapter.

The Water and Sanitation business in EPM revealed the outcomes of the energy efficiency consultancy for the installations that provide improvement water and manage wastewater and started implementing the identified opportunities. Aguas de Malambo replaced 53 lightbulbs, fluorescent tubes, and sodium lamps for LED lightbulbs, lamps and floodlights.

66.62 % of the electrical energy consumption in the Enérgica facilities (company of EPM Guatemala) was self-generated by solar panels.

CENS expanded the solar photovoltaic system in the Sevilla administrative headquarters and installed new panels in the Ocaña headquarters, for a total amount of 427 panels, with an installed power of 213 kWp and generation of 25,000 kWh-month.

Renewable energy

The San Fernando sewage treatment used biogas from the anaerobic digestion of wastewater and energy generated from the solar photovoltaic panels that were installed on the roof, to self-generate 30.15% of the energy it needs for its operation. In 2023 it started using biomethane for the gas distribution network.

Grupo EPM companies installed solar panels on its own facilities for self-supplying electrical energy.

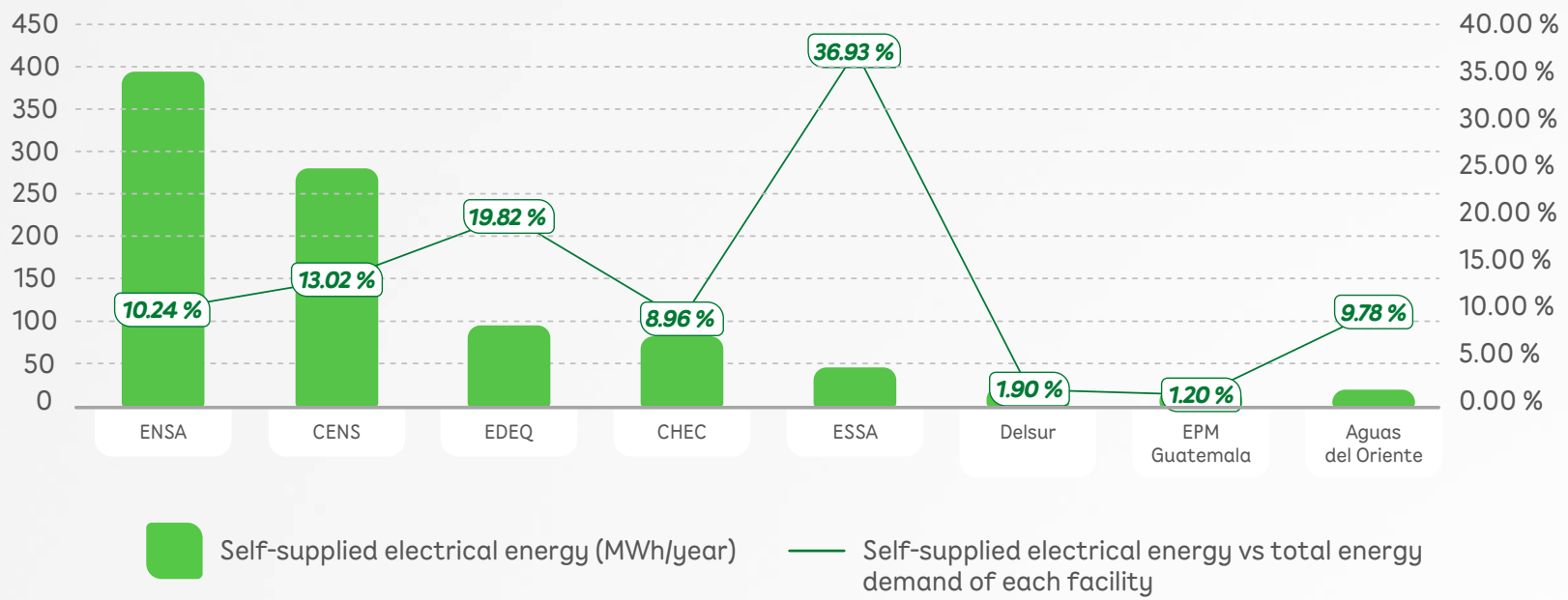
EPM continued building Tepuy, the solar photovoltaic park in La Dorada (Caldas) and on October started operating the project for using biomethane in the San Fernando sewage treatment plant.

See | Solar photovoltaic and Biogas, in the material topic Renewable energy

CHEC advances in the research for developing geothermal energy in the country (See *Geothermal energy in the material topic Renewable energy*).

La Alpujarra Thermal district delivered 6,002,309 t-h of thermal energy to the customers who required it.

Self-supplied electrical energy by solar panels in own facilities (MWh/year) - Grupo EPM 2023



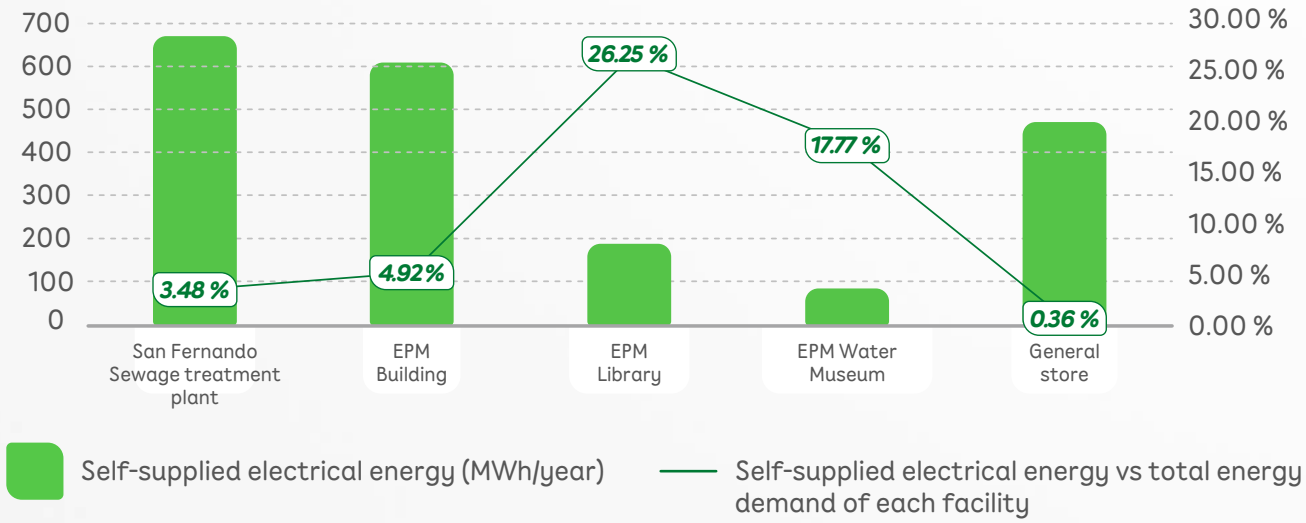
Source: *Idsos application.*

Note: ENSA generated the largest amount of electrical energy in its solar panels (392,992 kWh-year) which self-supplied 10.24 % of the demand in said facilities; ESSA produced 44,827 kWh- year that correspond to 36.93 % of the demand.

The facilities included in the calculation are:

Administrative headquarters Arco Iris and Santa María Business District, OAC Calle Segunda and substations 24 de diciembre, Monte Oscuro and Tocumen (ENSA); Ocaña and Sevilla headquarters (CENS); main office (EDEQ); San Francisco generation plant and Estación Uribe main headquarters (CHEC); Barrancabermeja headquarters (ESSA); central building (Delsur); Trelec substations and administrative headquarters in Amesa, Enérgica and Ideamsa (EPM Guatemala); purification and pumping plant El Retiro (Aguas del Oriente).

Self-supplied electrical energy by solar panels in own facilities (MWh/year) - EPM 2023



Source: *Idsos application.*

Note: The San Fernando plant produced the largest amount of electrical energy in its solar panels (659,799 kWh-year) which helped provide 3.48 % of the demand in said facility; EPM library's solar panels provided 26.25 % of its energy needs.

Aguas Regionales captured CH_4 produced in the sewage treatment plant of Santa Fe de Antioquia and took it to two burners that remained ignited to reduce GHG emissions.

Sustainable mobility

Emvarias added 12 new vehicles with EURO VI diesel technology in its waste collecting fleet. ENSA currently has 15 vehicles and 3 electric forklifts.

CHEC installed a charging station for its own vehicles, and Enérgica (a company of EPM Guatemala) an ultrafast charging station (150 kW DC) in La Castellana operating center.

.

Contents of GRI standards and corporate indicators

Content GRI 305-1	Direct (Scope 1) GHG emissions
Content GRI 305-2	Energy indirect (Scope 2) GHG emissions
Content GRI 305-3	Other indirect (Scope 3) emissions
Content GRI 305-4	GHG emissions intensity
Content GRI 305-5	Reduction of GHG emissions
Content GRI 305-6	Emissions of ozone-depleting substances (ODS)
Content GRI 305-7	Nitrogen oxides (NOx), sulfur oxides (SOx) and other significant air emissions

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Hidroecológica del Teribe - HET
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Risaralda
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - El Caribe

- Chile
- El Salvador
- Guatemala
- México
- Panamá

Business

- Water
- Sanitation
- Electricity
- Gas
- Waste

Back to content

Sustainability Report

2023

Adaptation to natural variability and climate change

Grupo·epm

Adaptation to natural variability and climate change

To strengthen the capacity to respond to changing climate conditions, new measures are incorporated to reduce vulnerability and increase resilience regarding the impacts of climate events on operational activities, service provision, communities and the operational environments, thus contributing to managing climate risks.

Management in 2023

The companies of Grupo EPM participated at the sectoral and territorial level in forums to promote and discuss issues related to climate change adaptation to contribute to the coordination between institutions, academy and citizens. They also advanced in identifying climate risks and actions for comprehensive management, implementing ecosystem -based adaptation measures on, improving and adjusting facilities and studying new water supply sources to reduce the impacts due to climate variability.

EPM included climate change signals in the hydrological modeling to generate precipitation and local temperatures series that will strengthen the adaptation actions in the medium and long term to reduce the impacts of climate variability. It also advanced in feasibility studies for new water supply sources and it designed a climate alert analysis model for licensed energy transmission projects to reduce the effects of climate events.

Infrastructure and knowledge

EPM continued collecting and incorporating hydrometeorological information and climate modeling to its operational and contingency plans to mitigate the impact that climate variability and climate change have on energy generation and water supply.

In the water supply business, there were advances in the inclusion of climate change signals in the hydrological modeling to generate precipitation and temperature series that will be used in the long-term offer and demand analysis, in the prioritization of signals in the supplying drainage basins and in the analysis of urban drainage. Progress was made in the implementation of minor supply sources such as La Valeria, La Reventona, La Picacha, La Puerta and La Iguaná for efficient use and adaptation to water flow variations. There were advances in the project execution to reduce climate variability in the aqueduct service provision: finished designs for new capture in the Barbosa municipality, pumps and tanks to integrate Caldas municipality in the interconnected system, improving the supply chain at the west of Medellín, building tanks for interconnecting Rionegro municipality with La Fe system that will benefit the partial plan's urban expansion area.

Aguas Regionales continued monitoring the hydroclimatic variables in natural supply sources that have a flow reduction due to climate variability in Turbo, Apartadó, Carepa, Santa Fe de Antioquia and San Jerónimo, to implement actions that mitigate the effects on the drinking water supply. It also advanced in the early stage of the Sable Project that it is executing with EPM in the León River, as an alternate supply source to meet the water

provision demand in municipalities that have critical conditions in times of minimum water flow. In the west of Antioquia, it expanded the sewer system, 900 ml in San Jerónimo and 1,147 in Sopetrán, that in turn connect with the sewer system of these municipalities.

Aguas de Malambo updated the risk matrices for the core mission processes and considered some climate-related events as natural risks prompting the identification of actions to manage them.

Emvarias identified risks related to climate variability by updating risk matrices of macroprocesses and processes, which will be managed accordingly.

Aguas Nacionales identified climate risks in the disaster risk management plan for the Aguas Claras sewage treatment plant.

Aguas del Oriente advanced in the optimization of the wastewater treatment with the operation and connection of EBAR (sewage pumping station) in the Villa Elena sector, which guaranteed a greater than 90% removal of pollutants and improved the dumping quality to the natural source. In the influence area it carried out actions to eradicate the invading species black-eyed-Susan (Thunbergia alata) and thus reduce its propagation and impact in native species, biodiversity and ecosystem services.

In the energy transmission and distribution business, 4 disaster risk management plans were established for substations of 44 kV, while 118 were updated for lines and 62 for substations. Additionally, a model for climate alerts was designed; it is connected to the disaster risk analysis of the transmission and distribution projects licensed by ANLA, to get information regarding infrastructure operation and maintenance to prevent possible problems due to climate events.

Risks associated with climate variability were also identified in the early stages of new projects. There was a follow-up to erosion processes and soil degradation in areas of influence of licensed projects through revegetation and mass movement records.

Afinia advanced in the definition of the disaster risk management plan for the Codazzi substation and regarded climate related events as natural event risks.

CENS installed 6 climate variable monitoring stations in the municipalities of Chinacota, Durania, El Carmen, Pamplona and Gamarra in Norte de Santander and Ayacucho at the south of Cesar. This helped to expand the monitoring system to identify and carry out preventive actions for service provision. Besides, it applied the manual for managing climate risk for Grupo EPM in 20 processes and it identified climate events as part of these alerts and early restrictions for projects in their definition phase: Escobal, San Pablo y Sardinata, Aguachica, Palermo and San Antonio substations and the 34.5 Kv Zulia plant network remodeling project.

CHEC updated the disaster risk scenarios for 62 substations and the customer support offices and established a plan for managing disaster risk of the Esmeralda aqueduct. It also progressed in identifying the climate risks that can impact the energy generation, transmission, distribution and commercialization business as part of the strategic risk updating.

Delsur started consultancy for the vulnerability study of climate change in the energy system to identify actions for adapting to climate variability and climate change.

EDEQ updated the risk disaster management plan for the substations, operational headquarters and 11kV transmission line, where natural risks were considered, including some associated with climate.

ESSA advanced in incorporating the climate risk management manual of Grupo EPM in the environmental management process, by identifying 57 workstations to analyze climate risk, based on primary information and the results of Global Peril Diagnostic model for exposure to 12 natural dangers.

ENSA updated risk matrices for several processes and included the identification of climate-related events.

The energy generation business continued with the policy of climate coverage for the period of May 2020 – April 2024, as a mechanism for managing the risk of losing income due to low water levels.

In Grupo EPM, climate risk management is conceived taking into account the interaction with the operating environments that are exposed to changing climate dynamics. To do so, it uses the comprehensive risk management methodology of Grupo EPM and groups natural and anthropogenic risks with the plans for managing risk disasters.

Grupo EPM created the climate risk management plan aligned with the comprehensive risk methodology and included guidelines from the Guide for including the climate variable in new projects, works or activities, 2015 of the Ministry of Environment and Sustainable Development in Colombia. The manual regards the business climate risk index as a product of the probability by the consequence, the adaptive capacity according to the control evaluation and the business climate vulnerability as the product of the business climate risk index by the adaptive capacity.

Ecosystems and communities

he companies of Grupo EPM continued carrying out ecosystem adaptation actions based on in their territory of influence, both independently and in collaboration with other actors. Thus, they strengthened governance and nature-based solutions as mechanisms for facing the common challenges of water security, mitigation and adaptation to climate change, and environmental degradation.

Ecosystem-based adaptation has been focused on protection, conservation and comprehensive management of water resources, biodiversity and ecosystems. To achieve this, lands were acquired to preserve important ecosystems in paramo areas; families were linked to payments for environmental services in drainage basins supplying drinking water and supporting energy generation; agreements were made to preserve forests through isolation and agroforestry interventions; practices for sustainable use of natural resources, as well as reforestation activities and ecological restoration were performed; wildlife crossings were built and maintained, and lands were conserved as refuges and habitat for threatened fauna and flora species.

The initiatives were carried out EPM and other actors through agreements and alliances with water funds, environmental authorities, community action councils, municipalities' environmental secretariats and agreements with third parties in the operational influence areas. The detailed information can be found in the *Water and biodiversity* chapter.

EPM participated in dialogue spaces of the National monitoring and evaluation table for climate change adaptation to contribute to learning and collective construction for adaptation processes. It also participated in the Carbon Neutral Electric Sector Alliance (ASECN), to obtain the Comprehensive Business Climate Change Management Plan (PIGCCE). Additionally, they participated with the Energy transmission and distribution business in the land use planning of the Necoclí, Chigorodó and Turbo municipalities, to reveal the projects of the Urabá subregion and in the land councils for disaster risk management to socialize the disaster risk management plans for operational infrastructure.

Aguas Regionales and the Government of Antioquia conducted a workshop to reveal the Climate Change Adaptation Plan from Environmental Health for Antioquia (PACCSA) in the Urabá subregion, thus contributing to strengthening governance for identifying and implementing adaptation measures to reduce vulnerability and health impacts that are associated with climate variability and change.

ESSA performed activities for awareness and understanding of the main climate risks to which workplaces are exposed, according to the conditions of the operational environment.

EPM Guatemala disclosed the climate change strategy of Grupo EPM among its suppliers and contractors to strengthen the identification of joint mitigation and adaptation actions.

Afinia installed 425 km of ecological cable to replace the distribution lines' conventional cable, and thus contribute to protecting the fauna and reducing the number of electrical system problems, that went from 51 fauna incidents in 2022 to 34 incidents in 2023, which in turn, improved service provision.

Contents of GRI standards and corporate indicators

Content GRI 3-3	**Management of material topics**
Content GRI 201-2	**Financial implications and other risks and opportunities due to climate change**

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Aguas de Malambo
- Aguas del Oriente
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Elektra Noreste - ENSA

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico

- El Salvador
- Guatemala
- Panamá

Business

- Water
- Sanitation
- Electricity
- Gas
- Waste

‹ Back to content

Sustainability Report 2023

Human Rights

Grupo·epm

Table of contents

Material issues

p.

Human Rights 814

- Institutional management on human rights 824
- Security and human rights 841
- Public utilities and human rights 848
- Human rights in the supply chain 853

Human rights

It consists of the commitment assumed by Grupo EPM to respect human rights in the relationship with its stakeholders, both in its own operations and in those carried out by third parties in the development of activities derived from an agreement signed with the Organization.

For the Group, this is a challenge in terms of its own sustainability and it assumes it with the conviction that respect for human dignity is a fundamental commitment in the sustainable human development agenda.

Approaches

The management approaches to the subject for the Organization are:

- **Household public utilities as vehicles for the realization of rights:** recognition of the role played by the Grupo EPM as a provider of essential public services for the realization of human rights to decent life and decent housing (access to drinking water, basic sanitation, energy and gas).
- **HR due diligence: ensuring risk management and HR due diligence. HR due diligence:** ensuring risk management and HR due diligence appropriate to the particularities of the operating environments and operational realities. HR due diligence appropriate to the particularities of the operating environments and operational realities. The above, through the articulation of social impact management with the HR approach in projects and operations; and organizational decisions related to human talent management and the supply chain.

Main achievements 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Institutional management in human rights	Design plan and implement actions derived from the self-diagnosis of Colombia Human Rights Guidelines for community relations.	EPM	A working group was formed with the participation of several agencies that are related to communities, and work axes were defined to address the closing of gaps by implementing actions in stages that will cover the next few years.	Total
	Execute the treatment plans for human rights risks prioritized for Gente EPM.		The participation of people with disabilities increased, achieving at the end of the year a representation of 1.2 % of this group in relation to the total number of employees. In partnership with SENA, it continued to sponsor women to train them and enable their skills so that they can participate and have a presence in positions that are currently occupied mostly by men. In the first level positions reporting to the general manager, gender parity was achieved with 50% participation of women. Progress is being made towards a more diverse, equitable and inclusive culture that enables a path of opportunities for all people. The diversity, equity and inclusion ICN was reactivated with the participation of strategic vice presidencies to advance the issue.	Total
	Design a plan and implement actions derived from the self-diagnosis of the Colombia Human Rights Guidelines for community relations.	CHEC	The community stakeholder characterization process began, which included NGOs and community action boards in the departments and municipalities of Caldas and Risaralda to close gaps in terms of: analysis of the operational context, evaluation and periodic updating of risks and impacts on human rights, processes of participation and consultation on human rights management, and adoption of a differential and inclusive approach in business management in this area. Awareness-raising and training activities were carried out in the areas of sustainability, human rights, social innovation, social management, and human resources management. environmental management and contracting, with a view to strengthening and promoting CHEC's social hiring in the region.	Total

Main achievements 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Institutional management in human rights	Design a plan and implement actions derived from the self-diagnosis of the Colombia Human Rights Guidelines for community relations.	CENS	The suggestions made by the Technical Secretariat of Guías Colombia on the self-diagnosis of the relationship with the community stakeholders were reviewed and analyzed, which were socialized with the Customer Education and Social Management team in order to prioritize and execute the plan in 2024 and 2025.	Total
		ESSA	The recommendations of Guías Colombia were incorporated into the Strategic Plan for Environmental Management, which also seeks to contribute to the strengthening of sustainable territories and ensure responsible business conduct. In this plan, actions aimed at closing the identified gaps were carried out, such as: elaboration of audiovisual material available in the virtual space of human rights in the company's website, and the realization of spaces for two-way dialogue with the communities of the coffee industry, where the commitment to respect human rights and the Institutional Policy of Human Rights in ESSA is addressed.	Total
		Aguas Regionales	The Action Plan for Closing the Gaps was designed and short-, medium- and long-term actions were prioritized.	Total
		Emvarias	This milestone was rescheduled for the year 2024.	Not met
	Adopt the Institutional Guide for intercultural relations and dialogue with the communities of ethnic peoples.	Adasa	This milestone was rescheduled for the year 2024.	Not met
		Emvarias	The Guide was presented to the Steering Committee, where it was socialized and approved for implementation in the following years.	Total
		ENSA	After the adjustment of the Guide to Panamanian legislation and the updating of the ethnic communities in the concession area, it was approved by the CEO and uploaded to ENSA's corporate intranet.	Total

Main achievements 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Institutional management in human rights	Design a mechanism for complaints and grievances that is attentive to human rights. HH.	EPM Guatemala	The mechanism was designed with the participation of an interdisciplinary team of the organization and was approved by the Steering Committee.	Total
		Delsur	Progress was made in the design of the mechanism; approval by the Steering Committee was scheduled for 2024.	Not met
		Adasa	This milestone was rescheduled for the year 2024.	Not met
	To identify human rights risks and their treatment plans.	Afinia	This milestone was rescheduled for the year 2024.	Not met
		HET	Progress was made in the identification of human rights risks. The design of prioritized treatment plans for 2024 is pending.	Not met
		Ticsa	This milestone was rescheduled for the year 2024.	Not met
	Adopt the Institutional Human Rights Policy.	Afinia	This milestone was rescheduled for the year 2024.	Not met
		HET	The policy was adopted and formally presented.	Total
		Ticsa	This milestone was rescheduled for the year 2024.	Not met

Challenges 2024

Program, project, initiative or action	Challenges	Company	Business	Geography
Institutional management in human rights.	Design plan and implement actions derived from the self-diagnosis of Colombia Human Rights Guidelines for Security.	EPM	All businesses	Colombia
	Establish a human rights risk index and set a target for the end of 2024. HH. risk index and define a target for the year 2024.			
	Establish a human rights risk index and set a target for the end of 2024.	CHEC	T&D - Energía	
		EDEQ		
		CENS		
		ESSA		
		Aguas Regionales	Water and Sanitation	
		Emvarias	Solid Waste Management and Commercialization	
		EPM Guatemala	T&D - Energy	Guatemala
		Delsur		El Salvador
		ENSA		Panamá

Challenges 2024

Program, project, initiative or action	Challenges	Company	Business	Geography
Institutional management in human rights.	Design plan and implement actions derived from the self-diagnosis of Colombia Human Rights Guidelines for Security.	CENS	T&D - Energía	Colombia
		ESSA		
	Design plan and implement actions derived from the Self-diagnosis Colombia Guidelines for Institutional Strengthening.	Aguas Regionales	Water and Sanitation	
	Design plan and implement actions derived from the self-diagnosis of Colombia Human Rights Guidelines for community relations.	Emvarias	Solid waste	
	To identify human rights risks and their treatment plans.	Afinia	T&D - Energy	
		Ticsa	Water and Sanitation	México
	Design a mechanism for complaints and grievances that considers human rights.	Adasa		Chile
	Adopting the Guide for the relationship with communities of ethnic peoples.	HET	Power Generation	Panamá
		Adasa	Water and Sanitation	Chile
	Adopt the institutional policy on human rights.	Afinia	T&D - Energy	Colombia
		Ticsa	Water and Sanitation	México

Sustainable Development Goals

Associated stakeholders

- *Customers and users*
- *People*
- *Grupo EPM*
- *Suppliers and contractors*

Contents of GRI standards and corporate indicators

Contenido GRI 3-3	*Management of material issues*
Contenido GRI 406-1	*Discrimination cases and actions corrective actions taken*
Contenido GRI 407-1	*Operations and suppliers where the right to freedom of association and collective bargaining may be at risk*
Contenido GRI 408-1	*Operations and suppliers with significant risk of child labor cases*

Contents of GRI standards and corporate indicators

Contenido GRI 409-1	Operations and suppliers with significant risk of cases of forced or compulsory labor
Contenido GRI 410-1	Security personnel trained on policies o human rights procedures
Contenido GRI 411-1	Cases of rights violations of indigenous peoples
Contenido GRI 414-2	Negative social impacts on the supply chain and actions taken
EPM-11	Unarmed security personnel
EPM-30	Human rights management

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- EPM Guatemala
- Distribuidora de Electricidad del Sur - Delsur
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa
- Hidroecológica del Teribe - HET

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Risaralda
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - El Caribe

- Chile
- El Salvador
- Guatemala
- Panamá

Business

- Water
- Sanitation
- Waste
- Electricity
- Gas

Back to content

Sustainability Report

2023

Institutional management on human rights

Grupo·epm

Institutional management on human rights

Since joining the United Nations Global Compact in 2006, EPM made a commitment to incorporate respect for human rights into its practices, which it has subsequently deployed through a specific work scheme on the subject, as a fundamental step towards strengthening relations with all its stakeholders.

With this purpose, the Company formally assumed the cross-cutting management of human rights in all business operations, which was ratified with the enactment of the institutional policy in 2012. This statement makes public and explicit the commitment to respect human rights from the business activities and sets the formal basis for its implementation throughout the EPM Group.

Today, the national and international companies that are part of the Grupo EPM are gradually advancing in this approach. To this end, and based on the United Nations Guiding Principles, the Organization defined the following management milestones for each company: continuous identification and prioritization of human rights risks, design and development of treatment plans for the most critical risks, raising awareness and internal and external training in human rights in companies, adoption of a human rights-based approach in the company, implementation of a complaints and grievances mechanism attentive to human rights, and implementation of a deployment of the company's human resources management system. We have also implemented a permanent communication campaign for our stakeholders regarding our commitment and management in this area.

Institutional management in this area includes compliance with each of these milestones, complemented by the development of specific actions to respect human rights in operations, the adoption of instruments and tools to strengthen their management, promote respect in third-party operations and report on progress in implementation. Throughout this deployment, the Organization makes a permanent reference to the progress in human rights and business worldwide and, in particular, welcomes and applies the United Nations Guiding Principles as a guide in the internal approach to the matter.

Management in 2023

The participation of people with disabilities in EPM's personnel increased. At the end of the year, it reached a representation of 1.2% with respect to the total number of personnel hired.

In the development of diversity, gender equity and inclusion actions, the Company hired 85 employees with disabilities, of which 58 are assigned to structural positions and 27 are employees who are part of the inclusion program. In 2023, 10 apprentices with disabilities were hired for their academic practice in administrative assistance.

The Organization achieved gender parity with 50% participation of women in the first level positions reporting to the general manager, and continued, in alliance with SENA, to sponsor women to train them in positions that today are mostly occupied by men, as a way to enable their competencies to achieve their participation and presence in these jobs. Today there are 21 students in training as industrial electricity technologists (a group of female electricians in the training chain) and another group of 21 women are in the technical process in industrial electricity (second cohort of female electrician technicians).

During the period, progress was consolidated in the development of the human rights due diligence procedure in the EPM Group. The management indicator in this area reached 79 % compliance, based on the milestones programmed for each company in the search for a rigorous compliance with the commitment to respect Human Rights enshrined in the institutional policy. This figure presents adjustments with respect to that reported the previous year, because as of 2023 the subsidiary Afinia was included, which represents an increase in the milestones to be met to reach 100 % of the approach in the companies of the EPM Group.

The Organization's due diligence cycle takes as its starting point the identification of human rights risks. These are understood as those activities, products or services of the Group's companies or its supply chain that, in certain cases, may generate exposure to possible impacts on the exercise and enjoyment of human rights. Based on the results of these exercises, action plans are implemented to address the critical risks identified.

Due diligence also includes addressing the relevant human rights issues identified for each company, the formal adoption of the Institutional Human Rights Policy, as well as the design and implementation of human rights complaints

and grievance mechanisms, as necessary tools for proper management in the development of the duty to remedy situations that may generate a potential or real risk of human rights violations. As necessary tools for the proper management in the development of the duty to remedy situations that may generate a potential or actual risk of affectation in the matter.

During the year, the adoption of the Institutional Human Rights Policy in the company HET in Panama and the beginning of the approach in Afinia stand out. At HET, a risk analysis was conducted and actions were designed to address the prioritized risks. At Afinia, the risk analysis was initiated.

Human Rights in the workplace

At EPM there is freedom of union association, 92% of the personnel is affiliated to one or more of the 6 existing union organizations. In the Group's companies there are 32 unions to which 14,817 employees are directly affiliated, which is equivalent to 85.7% of the personnel.

EPM's Labor Coexistence Committee receives complaints motivated by situations of labor harassment, one of the modalities of which is labor discrimination. However, the Committee does not qualify or verify the facts, since its function is to ensure that the parties reach agreements and commitments to resolve the conflict. If the fact cannot be conciliated, it is the duty of the Committee to transfer the complaint to the Provincial Attorney General's Office of Valle de Aburrá, which is responsible for opening a disciplinary investigation to verify the facts.

In terms of internal training, in addition to the specific training in HR and business reported, during 2023, a face-to-face training and awareness workshop was designed and carried out at the EPM School of Leaders. In the area of internal training, in addition to the specific HR and business training reported, during 2023 a training and awareness workshop was designed and carried out at the EPM School of Leaders called: "Leadership in human rights management in the EPM Group", aimed at directors, leaders and managers of the EPM Group.

By 2023, 1,872 employees took the virtual course on labor inclusion of people with disabilities, while 4,057 took the course on labor and sexual harassment and 621 participated in the virtual course on gender equity. This training, as well as the training reported in Human Rights, are added to the other strategies with which the Company seeks to maintain the issue of responsible management in human rights present in the daily lives of each of the people who make up the Company.

Articulation with external initiatives

Consistent with its concern to develop business practices that promote respect for human rights in the country, the Grupo EPM continued to participate in Guías Colombia, an initiative composed of companies, international organizations, members of civil society and government to promote and guide business-environment relations under minimum criteria of compliance and respect for human rights and international humanitarian law.

With the support of Guías Colombia, a self-diagnosis of the operations associated with corporate security was carried out, based on the postulates of the guide developed by the initiative. The subsidiaries CENS and ESSA participated in this evaluation. Aguas Regionales carried out this exercise with a focus on institutional strengthening practices. The final report was received with some management gaps and recommendations identified in both exercises, based on which a work plan will be designed to be developed in 2024.

Similarly, EPM maintained its participation in the Human Rights and Energy working group, attached to the Ministry of Mines and Energy of Colombia, whose objective is to promote, strengthen and disseminate respect for human rights in the activities of the energy sector in the country.

As part of the celebration of International Human Rights Day, EPM held the fourth forum on Business and Human Rights, an institutional space for reflection to guide the practices on the subject in the companies of the EPM Group. On this occasion, the topic of human rights due diligence as a binding practice for Grupo EPM companies was addressed in Human Rights as a binding practice for companies, with the participation of representatives of the Colombian Ombudsman's Office, OECD and United Nations.

Property management

As a general principle, EPM promotes voluntary negotiation and agreements as a land management method for the acquisition of land and obtaining rights over the land required for the development of the projects. However, some legal or juridical situations may motivate taxation or expropriation processes, cases in which the Company seeks to advance these processes within the strict compliance with the requirements demanded for such purposes.

EPM conducted 31 consultations on land restitution to ensure special due diligence in the development of projects or for the constitution of easements and acquisition of land. In turn, the subsidiary CHEC carried out 12 land management processes with special due diligence.

The design and fine-tuning for the entry into operation of human rights complaint and grievance mechanisms for the subsidiaries EPM Guatemala and Delsur in El Salvador is noteworthy. This is a tool that allows addressing situations that represent real or potential risks to stakeholders, to prevent specific and simple difficulties from becoming complex and to provide a timely response. These mechanisms are part of the HR due diligence scheme that the Grupo EPM has in place. These mechanisms are part of the HR due diligence scheme that Grupo EPM has established for all its companies.

Ethnic communities

As part of its human rights management, and consistent with its institutional policy in this area, in cases where the authority in charge certifies the presence of ethnic communities in the areas where infrastructure projects are developed, Grupo EPM activates a protocol that is regulated by law to ensure respect for their customs and cultures.

In the deployment of this approach, EPM and its subsidiaries CHEC, EDEQ, CENS, ESSA, Emvarias and Aguas Regionales in Colombia and ENSA Panama apply the Institutional Guide for intercultural relations and dialogue with the communities of ethnic peoples. This is a tool that establishes the principles for relations with these communities on the principle of recognition,

understanding and mutual respect in the exercise and guarantee of rights. The guide was prepared by an interdisciplinary group from different areas of the Organization and was accompanied by the Office of the United Nations High Commissioner for Human Rights in Colombia.

During the reporting period, no complaints were received related to events of possible human rights affectation with members of ethnic, Afro or Rom communities located in its areas of operation. The CHEC subsidiary, together with the University of Manizales, continued with the "Intercultural Communication" initiative through which 331 meetings were held with the participation of 435 people in different municipalities of Caldas and Risaralda with the development of affirmative and inclusive dialogue processes of ethnic and rural identities. In the research line, 8 social cartographies were made, 22 interviews were conducted with 20 actors of the territory related to the general topic of traditional knowledge and specific cultural practices. Within the framework of World Diversity Day, the Dialogue of Knowledge Meeting and Craft Fair of the ethnic communities of Caldas and Risaralda was held.

HR at Hidroituango power plant

Until the 2022 Sustainability Report, human rights management in the Hidroituango project was reported in the action "Human rights in projects under construction". Human rights management in the Hidroituango project was reported in the action "Human rights in projects under construction". With the entry into operation of the power plant, from this report onwards it is included in the action Institutional management in human rights.

The Hidroituango power plant continued with the analysis and management of actions aimed at respecting and promoting human rights in the municipalities of the area of influence and other areas of interest. Considering the dynamics and complexities of the context of the territory, an advocacy strategy is being implemented in order to contribute to the development of sustainable and peaceful territories. This strategy, called Ruta de la Confianza, aims to strengthen trust between three relevant stakeholders in the territory: communities, the local government and companies, through dialogue for action and capacity building, in order to build joint actions that contribute to territorial development. This initiative, developed in collaboration with the Ideas for Peace Foundation, led to the creation of spaces for dialogue and the development of cooperation and training initiatives in areas such as the creation and strengthening of community capacities, strengthening of the social fabric, territorial management, training for local entrepreneurship, environmental care, rural and community tourism, mental health, productivity and competitiveness, and memory and peace.

Priority was also given to community strengthening actions with community and social organizations and formal participation bodies in the 12 municipalities in the area of influence, which addressed issues such as conflict resolution, participation and open government, memory and communication. A total of 850 people from the 12 municipalities in the area of influence participated in this process.

Membership in trade union organizations EPM

Concept	2021	2022	2023
Unions	6	6	**6**
Employees covered by collective bargaining agreements.	8,392	8,168	**7,961**
Non-unionized.	14	14	**15**

Source: *Vice-Presidency Employee Experience and Organizational Solutions.*

Affiliation to trade union organizations EPM Group

Concept	2021	2022	2023
Unions.	33	33	**34**
Employees covered by collective bargaining agreements	14,875	14,866	**14,817**
Non-unionized.	1,261	1,899	**2,364**

Source: *Vice-Presidency of Human Resources and Organizational Development*

Percentage of membership in trade union organizations

Company	2021	2022	2023
EPM	90,9 %	92,5 %	**92 %**
Aguas Regionales	53,4 %	54,8 %	**100 %**
Aguas Nacionales	6,3 %	6,9 %	**N. A.**
Aguas de Malambo	69,5 %	63,5 %	**97,6 %**
Ticsa	0 %	27 %	**22 %**
Adasa	93 %	90 %	**94 %**
Emvarias	93,6 %	93 %	**94 %**
CHEC	53,1 %	56,9 %	**53,82 %**
ESSA	98,7 %	98,8 %	**98,97 %**
CENS	89,7 %	95,9 %	**99,4 %**
EDEQ	86,1 %	88,96 %	**97 %**
Afinia	52 %	52 %	**58 %**
Delsur	100 %	100 %	**100 %**
EPM Guatemala	84 %	84 %	**84,10 %**
ENSA	65 %	67 %	**66 %**

Source: *Vice-Presidency Employee Experience and Organizational Solutions.*

Human rights training Grupo EPM- Trained employees

Company	2021	2022	2023
EPM	448	333	**542**
Aguas Regionales	160	154	**117**
Aguas de Malambo	50	40	**86**
Emvarias	109	102	**105**
CHEC	59	32	**295**
ESSA	180	996	**711**
CENS	196	117	**246**
EDEQ	258	318	**293**
Delsur	154	132	**228**
EPM Guatemala	194	593	**434**
ENSA	0	67	**83**
Adasa	0	0	**11**
Total	**1,808**	**2,884**	**3,151**

Source: *Vice-Presidency Employee Experience and Organizational Solutions, Executive Vice-Presidency Business Management.*

Human Rights Training Grupo EPM- Training hours

Company	2021	2022	2023
EPM	672	530	**1,084**
Aguas Regionales	825	218	**226**
Aguas de Malambo	50	30	**172**
Emvarias	218	98	**210**
CHEC	97	64	**1,106**
ESSA	180	1,796	**1,502**
CENS	424	936	**2,214**
EDEQ	411	365	**462**
Delsur	924	244	**2,200**
EPM Guatemala	2,272	1,395	**972**
ENSA	0	134	**132**
Adasa	0	0	**66**
Total	**6,073**	**5,810**	**10,412**

Source: *Vice-Presidency Employee Experience and Organizational Solutions, Executive Vice-Presidency Business Management*

Human rights training Grupo EPM - % of employees trained

Company	2021	2022	2023
EPM	5 %	4 %	**6,5 %**
Aguas Regionales	64 %	61 %	**47 %**
Aguas de Malambo	61 %	60 %	**100 %**
Emvarias	37 %	36 %	**38 %**
CHEC	5 %	3 %	**26 %**
ESSA	16 %	80 %	**67 %**
CENS	29 %	18 %	**37 %**
EDEQ	52 %	70 %	**53 %**
Delsur	44 %	0 %	**38 %**
EPM Guatemala	25 %	74 %	**55 %**
ENSA	0 %	11 %	**14 %**
Adasa	0 %	0 %	**1,9 %**

Source: *Vice-Presidency Employee Experience and Organizational Solutions, Executive Vice-Presidency Business Management*

Other training related to human rights in EPM

Course name	Persons trained 2021	Persons trained 2022	Persons trained 2023
Virtual course: gender equality.	1,320	104	**621**
E-learning course: labor inclusion of people with disabilities.	705	642	**1,804**
ABC for administrative management - Inclusion	N/A	N/A	**68**
E-learning course: sexual harassment at work .	N/A	N/A	**4,031**
Course - Law 1010 of 2006 "Workplace Harassment.	N/A	N/A	**46**
Total	**2,025**	**746**	**6,570**

Source: *Vice-Presidency Employee Experience and Organizational Solutions, Human Resources Services Department (HCM report).*

Note: Training in Human Rights for the stakeholder Gente Grupo EPM is a permanent management indicator year after year. Training in Human Rights for the Grupo EPMstakeholders is a permanent management indicator year after year, which includes different training strategies such as seminars, courses, workshops, forums, etc. This year and after starting the Due Diligence procedure in Human Rights designed for the entire EPM Group. HH. Due Diligence procedure designed for the entire EPM Group, Adasa's subsidiary in Chile began its HR training report. HH.

Property management at EPM

Concept	2021	2022	2023
Property management procedures with special due diligence	53	72	**31**

Source: *Vice-Presidency Supply and Shared Services.*

Property management in the EPM Group

Concept	2021	2022	2023
Property management procedures	63	89	**45**

Source: *Vice-Presidency Supply and Shared Services.*

Cases of harassment at EPM

Concept	2021	2022	2023
Cases received.	4	3	**22**
Cases evaluated.	4	3	**22**
Repair plans in progress.	3	2	**2**
Closed cases.	3	2	**20**

Source: *Vice-Presidency of Human Resources and Organizational Development*

Note: The figures reported correspond to complaints received by the Labor Coexistence Committee associated with labor harassment, which from the legal definition include cases associated with labor discrimination, among other categories. The reported cases do not correspond to proven discrimination.

Employment generated at Hidroituango power plant

Concept	2021	2022	2023
Job generated.	7,904	7,011	**3,360**
People in the region hired.	2,293	2,148	**1,251**

Source: *Executive Vice-Presidency Projects and Engineering.*

Note: A decrease was recorded due to the change of main works contractor and the completion of construction activities in power generation units 1 to 4

Human Rights Complaints and Claims - Hidroituango Power Plant

Concept	2021	2022	2023
Complaints and claims public and private security (IHL) received.	6	1	0
Complaints and claims public and private security (IHL) resolved.	6	1	0
Complaints and grievances - labor matters and contractor relations Received*.	161	137	43
Complaints and grievances contractor relations - Resolved.	140	133	36
Communications received.	1,031	618	304
Resolved communications.	935	589	294
Total received	**480**	**1,198**	**756**
Total resolved	**455**	**1,081**	**723**

Source: *Executive Vice-Presidency Projects and Engineering.*

Note: *These claims are for informational purposes between the supervisor and contractors.

Legal actions taken at Hidroituango power plant

Concept	2021	2022	2023
Petition rights addressed.	7	0	16
Petition rights resolved	4	0	16
Guardianships attended.	10	24	15
Resolved guardianships.	5	32	14
Demands addressed.	767	102	34
Demands resolved.	85	39	23

Source: *Executive Vice-Presidency Projects and Engineering.*

Hidroituango power plant property management

Concept	2021	2022	2023
Property management procedures with special due diligence.	Not reported	8	9

Source: *Executive Vice-Presidency Projects and Engineering.*

Indigenous Peoples - Human Rights Incidents at Hidroituango Power Plant

Concept	2021	2022	2023
Human Rights incidents in process.	0	0	0
Human Rights incidents resolved.	0	0	0

Source: *Executive Vice-Presidency Projects and Engineering.*

Contents of GRI standards and corporate indicators

Contenido GRI 406-1	*Discrimination cases and corrective actions taken*
Contenido GRI 407-1	*Operations and suppliers where the right to freedom of association and collective bargaining may be at risk*
Contenido GRI 411-1	*Cases of rights violations of indigenous peoples*
EPM-30	*Human rights management*

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- EPM Guatemala
- Distribuidora de Electricidad del Sur - Delsur
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Risaralda
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Chile
- El Salvador
- Guatemala
- Panamá

Business

- Water
- Sanitation
- Waste
- Electricity
- Gas

‹ Back to content

Sustainability Report 2023

Security and human rights

Grupo·epm

Security and human rights

As a principle of action, Grupo EPM assumes a preventive approach to human rights as part of the development of its security strategies. Therefore, and as a basis of this approach, the steps to ensure the protection of operations, employees and assets are carefully taken, both in the actions developed by private security agencies and those derived from the compliance of agreements with the public force (in the cases in which these are established), accepting and applying the regulations of the country in which the operation is developed.

From its Institutional Human Rights Policy, the Organization is committed to "include in contracts and agreements for surveillance and security services with private firms and State security agencies, explicit commitments to respect and promote human rights. In no case will the provision of these services by social actors outside the constitutional and legal framework be accepted".

In the development of its security operations, the Group follows the recommendations contained in the Voluntary Principles on Security and Human Rights, which propose guidelines for companies in their relationship with law enforcement agencies, private security agencies and civil society. It also incorporates the guidelines of the Security Guide, developed by the Guías Colombia initiative, which provides guidelines on human rights and international humanitarian law when carrying out security activities in companies.

In order to continuously monitor operations in its areas of influence, the Organization has established mechanisms to address complaints and claims from the communities, through which it monitors, among other matters, the management of security contractors.

Management in 2023

As part of its commitment to participate in the Guías Colombia initiative and under the coordination of the Fundación Ideas para la Paz Foundation, EPM conducted a self-diagnosis of security practices applying minimum criteria of compliance and respect for human rights and international humanitarian law.

As a result of the evaluation, it was concluded that EPM has a 100% compliance progress with respect to the postulates of the Security Guide of Guías Colombia, which includes three topics: security risk analysis, relationship with the security forces and relationship with private security and surveillance. This process was also carried out in the subsidiaries CEN and ESSA.

The final results included some recommendations for the Company in relation to the indicators that seek the participation of stakeholders in the risk analysis on issues associated with coordinated operations with law enforcement, as well as the relationship with private security and surveillance companies. Based on these points, a work plan will be designed to be developed in 2024.

In 2023 EPM signed an agreement with the Colombian Army, Police and Air Force. As a general principle, the companies of the Grupo EPMin Colombia include in all agreements of this nature the obligation to "be respectful of international treaties on human rights and international humanitarian law signed by the Colombian State, promoting their preservation and defense".

The nature of these agreements is one of cooperation and it is not the EPM Group's authority, nor is it within its competence, to give operating instructions to members of the Police or the Army. However, considering national and international recommendations on the subject, the Organization has made an explicit emphasis within these agreements on the permanent respect for human rights in all operations derived from these agreements. To this end, in addition to including specific recommendations in the agreements, it provides permanent opportunities for follow-up and analysis with security personnel and commanders of police districts and battalion commanders in the areas of operation. The structure of the agreements also establishes the agreement for the personnel assigned to the Army and the National Police to receive training in human rights in permanent and ongoing training courses. The structure of the agreements also establishes the agreement for the personnel assigned to the Army and the National Police to receive training in human rights in permanent and on-site training with instructors and training from each of the institutions.

During 2023, contracts were signed with two new private security and surveillance companies since November: VISAN (urban area) and SOS - Su Oportuno Servicio (rural area). For these operations, Grupo EPM requires the service providers to strictly comply with the legal provisions in force in Colombia, especially the regulations issued by the Superintendence of Surveillance and Private Security, including the background check of the personnel employed by the contractors. For the formalization of these contracts, the Group's companies in Colombia are required to ensure that the firm guarantees training for its personnel in human rights, international humanitarian law, appropriate use of force, and application of the Voluntary Principles. Likewise, during the hiring process, as with any of the Group's contractors, security agencies must state their commitment to compliance with and deployment of the Institutional Human Rights Policy and its complementary guidelines.

In order to continuously monitor the operations in its areas of influence, Grupo EPM has established mechanisms for complaints and grievances regarding human rights. Through these mechanisms, the management of employees of security contractors is monitored. During 2023 there were no complaints of this nature in any of the Group's companies.

A relevant security decision has to do with the disarmament of security contractor personnel. As a policy of the Organization, the optimal scheme is determined according to the threat identified in the physical security and facilities, and with this analysis it defines which facilities should have armed guards. Today, 94 % of EPM's security guards do not use firearms in their operations, while for Grupo EPM companies such as CHEC, EDEQ and CENS in Colombia and Adasa in Chile, this percentage is 100 %. In the other companies, this issue is still under analysis.

In the reported period, the Protocol for attention to social protest events with de facto actions, which establishes an internal procedure for the institutional response actions to events of this nature, remained in force. In this way, it seeks to provide a protocol of action extensive to all companies of the Grupo EPM in Colombia, for the comprehensive and timely attention of these situations, articulating the responses from the different levels of the Organization within a framework of respect for human rights.

Human Rights Training - Security personnel hired by EPM

Concept	2021	2022	2023
Total security personnel - contractors.	1,547	1,471	**1,723**
Security personnel training in human rights - contractors	1,434	1,462	**1,632**
Hours of training in human rights for security personnel - hours of training for security personnel - hours of training for security personnel - hours of training for security personnel HH. training for security personnel - contractors.	2,868	8,247	**3,264**
Average duration of training (hours).	2.0	9.0	**2.0**
Percentage of employees of security trained.	93 %	99 %	**95 %**

Source: *Risk Vice-Presidency.*

Unarmed security personnel at EPM

Concept	2021	2022	2023
Security personnel for the Company.	1,547	1,536	**1,723**
Security personnel working for the Company who do not use weapons.	1,389	1,433	**1,618**
Percentage of personnel working for the Company who do not use weapons	90 %	93 %	**94 %**

Source: *Risk Vice-Presidency.*

Training in Human Rights - Security personnel hired at EPM Group

Concept	2021	2022	2023
Total security personnel - contractors.	2,429	2,275	**2,774**
Security personnel training in human rights. - contractors.	2,288	2,266	**2,514**
Hours of training in human rights for security personnel - contractors.	8,338	16,494	**9,247**
Average duration of training (hours).	3.6	9	**4.08**
Percentage of security employees trained.	94 %	99 %	**91 %**

Source: *Risk Vice-Presidency and Business Management Executive Vice-Presidency.*

Note: The figure for security personnel hired by CENS corresponds to security guards under contract as of December 31, 2023.

Unarmed security personnel at the EPM Group

Concept	2021	2022	2023
Security personnel for the Company.	2,337	2,284	**2,742**
Security personnel working for the Company who do not use weapons	1,676	1,816	**2,005**
Percentage of personnel working for the Company who do not use weapons	72 %	79 %	**73 %**

Source: *Risk Vice-Presidency and Business Management Executive Vice-Presidency.*

Contents of GRI standards and corporate indicators

Contenido GRI 410-1	Security personnel trained on policies o human rights procedures
Contenido GRI 411-1	Cases of rights violations of indigenous peoples
Contenido GRI 414-2	Negative social impacts on the supply chain and actions taken
EPM-11	Unarmed security personnel
EPM-30	Human rights management

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- EPM Guatemala
- Distribuidora de Electricidad del Sur - Delsur
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Risaralda
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - El Caribe
- Chile
- El Salvador
- Guatemala
- Panamá

Business

- Water
- Sanitation
- Waste
- Electricity
- Gas

Back to content

Sustainability Report 2023

Public utilities and human rights

Grupo·epm

Public utilities and human rights

From the definition of the human rights approach, the Grupo EPM assumes as a management approach to provide alternatives for access to public utilities as vehicles for the realization of rights. This is based on the premise that having drinking water, basic sanitation and energy services is a fundamental factor for the materialization of the rights to a decent life and decent housing.

In this regard, the organization develops different strategies that are reported in the material issue Access and affordability.

Management in 2023

The Conexiones por la Vida program, implemented jointly by EPM and the District of Medellín, exceeded the goal established for the connection of homes to water and sewage services in 21 sectors of the city. A total of 15,925 installations were connected with this initiative.

The purpose of the program was to improve the quality of life of 14,200 households in Medellín between 2020 and 2023, with access to water and sewage services with high quality parameters that, in turn, will have a positive impact on environmental, health and geological risks in the areas of influence; and to promote a citizen culture of care for water, legality and efficient use of public utilities.

In addition, through community supply in areas that are difficult to manage and the Housing Rehabilitation program, 116,000 homes were connected in different sectors of Medellín. Community meters for water supply are an initiative that provides a solution to the provision of service in sectors where, due to restrictions to extend networks, it is not possible to provide it with individual meters. These meters make it possible to extend the service to homes that receive the average consumption charge of the corresponding socioeconomic stratum. For its part, the Housing Rehabilitation program offers financing for the basic infrastructure of public utilities for the homes of vulnerable households, in order to facilitate connection to water, sewage, energy and gas services.

The *Access and Affordability* theme of this report lists the other programs developed by the Organization to facilitate connection to public services in the regions and countries where it is present.

Connections for Life Program - Connected Housing (cumulative total)

Service	2021	2022	2023
Aqueduct	5,506	10,896	15,925
Gas	4,866	0	0
Total	10,372	10,896	15,925

Connections for Life Program - Beneficiaries

Service	2021	2022	2023
Aqueduct	17,068	33,778	**49,368**
Gas	15,084	0	**0**
Total	**32,153**	**33,778**	**49,368**

Enabling Housing for Utilities Program - Connected Households

Service	2021	2022	2023
Aqueduct	22,320	26,405	**28,456**
Gas	52,173	58,533	**49,890**
Energy	29,766	33,397	**36,715**
Total	**104,259**	**118,335**	**115,061**

Enabling Housing for Utilities Program - People benefited

Service	2021	2022	2023
Aqueduct	69,192	81,855	**88,213**
Gas	161,736	181,452	**154,659**
Energy	92,274	103,530	**113,816**
Total	**323,202**	**366,837**	**356,688**

Community meters

Service	2021	2022	2023
Water meters installed	4	7	3
Homes benefited	2,850	14,414	1,048
People benefited	8,835	44,683	3,248

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- EPM Guatemala
- Distribuidora de Electricidad del Sur - Delsur
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Risaralda
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Chile
- El Salvador
- Guatemala
- Panamá

Business

- Water
- Sanitation
- Electricity
- Gas

‹ Back to content

Sustainability Report 2023

Human rights in the supply chain

Grupo·epm

Human rights in the supply chain

Since the beginning of the institutional approach to human rights, the Grupo EPM has directed a good part of its efforts to promote its management in the supply chain, with the interest that all those companies with which the Organization maintains contractual relations develop their operations under the permanent commitment to respect human rights. This is a fundamental issue in management, based on the recognition of the risks that may be involved in the operations that third parties carry out in the development of commercial agreements with the Company.

With this approach, and considering that it is important to strengthen this approach in business practice, the Group's companies have been gradually working on the identification of supply chain management risks, as well as on the adoption of respectful practices with the companies that are part of their supply chain.

In the energy and water subsidiaries in Colombia and in other Latin American countries, awareness and training of suppliers and contractors in order to formally incorporate human rights issues in operations, as well as the evaluation of performance in this area, labor practices, social repercussion and environmental impact, remain the main focus of our work. A key element in the whole approach is related to the implementation of mechanisms for monitoring, follow-up and activation of early warnings regarding compliance with these practices.

Management in 2023

In association with the Bogota Chamber of Commerce and the Guías Colombia initiative, EPM activated the human rights management program with SMEs in its supply chain operating in Medellin, as a way to strengthen the commitment and management of these companies in the area of human rights.

The program consists of a series of work sessions that include training in human rights due diligence, a diagnosis to identify human rights management gaps and a report of recommendations customized for each of the companies, aimed at closing the identified gaps.

The companies that were invited to participate in this initiative were defined based on the evaluation that EPM makes to identify critical contractors in Human Resources. To this end, a tool designed by the Organization was developed that allows identifying and classifying suppliers according to criteria such as the impact on the sustainability of EPM's business from the point of view of strategic sourcing and the actual or potential negative impacts that may result from their operations in relation to the human rights of EPM's stakeholders. In application of this methodology, 504 firms out of 759 contracts were analyzed, identifying 36 suppliers at extreme risk.

As part of the strategies that have been implemented with critical suppliers, EPM encouraged communication and awareness spaces to strengthen their approach and management of human rights. Ninety-two people from 74 companies participated.

Contract management and monitoring

Today, all the Group's companies have adopted the Code of Conduct for suppliers and contractors, which is incorporated into the hiring specifications in order to commit each company to disseminate among its employees the institutional guidelines related to issues such as human rights, the environment and labor standards, among others. HH, environment and labor standards, among others. As part of the contractual process, each supplier must accept the conditions of the bidding documents to participate as a contractor of EPM.

To ensure the approach and risk management associated with human rights throughout the supply chain, the companies of the Grupo EPM carry out cross-cutting analyses of the risks associated with the operation of contractors. To ensure the approach and management of human rights risks throughout the supply chain, Grupo EPM companies carry out cross-cutting analysis of the risks associated with the operation of contractors, in which different risk situations have been identified such as discrimination for various reasons, health and safety at work and in general decent working conditions, which is one of the explicit commitments of the Institutional Human Rights Policy, as well as the prohibition of child labor and respect for the rights of ethnic communities, among others. Thus, it is considered that there is a 100% coverage in the evaluation of the operation through third parties. Currently, different controls are implemented so that, in the event of non-compliance, EPM can eliminate a bid or terminate a contract early.

As part of the tools for monitoring the practices of their contractors, the Group's companies are designing and implementing human rights complaints and claims mechanisms, which operate as a resource for identifying early warnings, as well as for detecting and addressing probable human rights violations involving contractors. It is an instrument designed to ensure consistency in the institutional management of respect for human rights, covering practices in the supply chain, which is part of the milestones that each company of the Group must meet in terms of due diligence. In the case of EPM, its coordination oversees the Supplier Diversity and Development Unit, an area that, according to the specificities of each incident, forms an investigation and analysis team in which different departments of the Company participate.

The mechanism works in an integrated manner with the procedure for managing non-compliance with the Code of Conduct for suppliers and contractors. To this end, the company has a control mechanism in place to deal with cases involving suppliers and contractors in practices that affect third parties, which receives alerts through the institutional Transparent Contact line or by notification from the Compliance Unit of the Organization.

During 2023, the complaints and claims mechanisms for suppliers and contractors in the subsidiaries Emvarias, Aguas Regionales and ENSA came into operation, and the mechanisms for EPM Guatemala and Delsur were designed and will come into operation in 2024.

In the hiring processes, EPM is concerned about taking care of the social impacts, seeking that the contracts establish controls such as those associated to the care of occupational health and safety and the generation of employment in the regions when applicable. The above, according to the level of risk, the characteristics of the activity to be contracted and the situations to which the workers are exposed. During the monitoring of the execution of contracts, EPM validates month by month the compliance with the occupational safety and health (OSH) requirements, through standardized formats in which it consolidates the compliance with the current regulations and the contractual provisions established to guarantee safe working conditions, the compliance with the payment of labor obligations of the contractors and, when applicable, validates the employment of labor from the regions. No supplier or contractor processes or activities with risk of forced labor or child labor were identified.

Mechanism of response to complaints for employees of suppliers and contractors EPM Group

Concept	2021	2022	2023
Complaints received	20	72	**19**
Complaints resolved	16	68	**18**
Complaints under analysis	4	6	**1**

Source: *Vice-Presidency Supply and Shared Services*

Cases handled due to non-compliance with the Grupo EPM code of conduct

Concept	2021	2022	2023
Cases received	12	8	**26**
Cases solved	12	7	**25**
Cases under analysis	0	2	**1**

Source: *Vice-Presidency Supply and Shared Services.*

Processes or activities of suppliers and contractors at risk EPM

Concept	2021	2022	2023
Forced or compulsory labor	0	0	0
Child labor	0	0	0
Total	0	0	0

Source: *Vice-Presidency Supply and Shared Services.*

Contents of GRI standards and corporate indicators

Contenido GRI 406-1	*Discrimination cases and corrective actions taken*
Contenido GRI 407-1	*Operations and suppliers where the right to freedom of association and collective bargaining may be at risk*
Contenido GRI 408-1	*Operations and suppliers with significant risk of child labor cases*
Contenido GRI 409-1	*Operations and suppliers with significant risk of cases of forced or compulsory labor*
Contenido GRI 411-1	*Cases of violations of the rights of indigenous peoples*
Contenido GRI 414-2	*Negative social impacts on the supply chain and actions taken*
EPM-30	*Human rights management*

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- EPM Guatemala
- Distribuidora de Electricidad del Sur - Delsur
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Risaralda
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - El Caribe
- Chile
- El Salvador
- Guatemala
- Panamá

Business

- Water
- Sanitation
- Waste
- Electricity
- Gas

‹ Back to content

Sustainability Report 2023

Renewable energies

Grupo·epm

Table of contents

Material issues

p.

Renewable energies 860

- Small hydroelectric power plants 867
- Wind power 870
- Geothermal power 873
- Solar photovoltaic power 876
- Biogas power 880

Renewable energies

A commitment of Grupo EPM: to move towards a gradual energy transition for a sustainable future.

Grupo EPM is committed to the challenges of the energy transition, which is why it promotes solutions to the megatrends that redefine the future of the sector: decarbonization, diversification, decentralization, democratization and digitalization. Technologies such as solar, wind, hydro, geothermal, biomass and biogas are key to building a more sustainable future for everyone.

By diversifying its energy portfolio, Grupo EPM is committed to the development of renewable energy projects, clean and reliable sources, which in turn contribute to economic and social development, environmental protection and long-term sustainability.

Approaches

Offering clean and reliable solutions: expansion of Grupo EPM's energy portfolio through renewable energies such as solar and wind, among others, in order to create offers to increase service coverage, especially in rural areas, and to satisfy customers and users who demand alternative solutions.

Management in 2023

Grupo EPM is moving towards a more sustainable future. With a challenging bet, the Company has redefined its NCRE (Non-Conventional Renewable Energy) goals in line with the new MEGA towards 2030, which includes projects in Colombia and other regions where it has a presence.

The objective is to strengthen and diversify the energy mix, complement it with other renewable sources such as solar, wind, geothermal, biomass and biogas, and maintain the strength of hydropower as a renewable and cost-efficient energy source.

In order to take full advantage of the potential of renewable energies, Grupo EPM created an affiliate based in Panama: EPM Renovables. The new company will bolster the development of projects in Central America and Chile, to ratify the Company's commitment to the energy transition, the production of clean energy and the contribution to the fight against climate change.

In Colombia, Grupo EPM has different strategies for growth in renewable energies: the development of a portfolio of its own projects, the purchase of projects from third parties and large-scale solar self-generation projects, with which Grupo EPM seeks to continue leading the electricity sector, offering customers competitive, clean alternatives that meet their needs.

On the other hand, Grupo EPM is exploring other renewable energy sources such as hydrogen, for which it has defined a roadmap, which seeks to build skills and innovation and promote new growth opportunities and solutions that contribute to decarbonization.

Main achievements in 2023

Program, project, initiative or action	Challenge	Company	Achievement	Compliance
Renewable energies (NCRE)	To design and implement the new strategy to link EPM and the Group to the energy mix with solar and wind technologies.	EPM	The business has a portfolio of projects, mostly hydro, wind and solar photovoltaic, for an approximate of 4,000 MW in different stages of study, which seek to contribute to the growth strategy of the Power Generation business in the short, medium and long term.	**Total**
Solar photovoltaic	To develop nanostructured solar cells with materials available in Antioquia.	EPM	The nanostructured solar cell research project conducted with Universidad de Antioquia ended on December 31, 2023. EPM's contributions of COP 525 million were in kind in the form of laboratory equipment and human resources. The main result is the patent obtained with the US Patent Office.	**Total**
	To advance in the execution and start-up of an 83 MW photovoltaic solar park in La Dorada-Caldas.	EPM	Progress was made towards the final stages of installation of the mechanical and electrical components of the large-scale solar farm. The next step is to continue with regulatory testing compliance prior to commissioning. Commercial operation of this farm is expected to be achieved in 2024.	**Total**
	To install 11 solar self-generation solutions for a total cumulative capacity of 20 MW.	EPM	The operation of 50 cumulative solar self-generation solutions with a total capacity of 21 MW has been achieved (27 of the 50 solutions were installed in 2023).	**Total**
Hydroelectric	To advance in the structuring of the Santo Domingo project.	EPM	The project has obtained its environmental license and is awaiting financial feasibility and resource allocation. In addition, a change in the commissioning date to 2027 is being processed, in accordance with the expansion plan timeline of UPME.	**Partial**
Hybrid	To advance in the development stages of hybrid projects, technical and environmental studies	EPM	Progress is being made in the studies of the energy resource, its location and securing of land, in order to continue with the technical, environmental, social and financial feasibility stages.	**Total**

Challenges

Program, project, initiative or action	Challenge	Year of completion	Company	Business	Geography
Renewable energies	To build a portfolio of own and third-party projects to meet the growth target for the year 2030.	2030	EPM	Energy - Generation	Colombia - Antioquia
Solar photovoltaic	To install 7 MWp in solar self-generation solutions (large customers).	2024	EPM	Energy - Generation	Colombia - Antioquia
Hydroelectric	To advance in the structuring of the Santo Domingo project to be commissioned in 2027.	2027	EPM	Energy - Generation	Colombia - Antioquia
Hybrids	To advance in the development stages of hybrid projects, technical and environmental studies.	2024	EPM	Energy - Generation	Colombia - Antioquia
Wind	To advance in the feasibility stages of a wind project.	2024	EPM	Energy - Generation	Colombia - Antioquia

Sustainable Development Goals

Related stakeholders

- Customers and users
- Colleagues
- Community
- Owner
- State
- Investors
- Suppliers and contractors
- Partners

GRI standard content and corporate indicators

Content GRI 3-3	Management of material issues
EPM-14	Resources earmarked for renewable energies

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Nacionales EPM
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Risaralda
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Panamá

Business

- Energy
- Sanitation

Back to content

Sustainability Report

2023

Small hydroelectric power plants

Grupo·epm

Small hydroelectric power plants

SHP (Small Hydroelectric Power Plants) *are a source of clean and renewable energy with low environmental impact. These take advantage of the flow of our rivers to generate electricity without polluting emissions.*

In Colombia, Grupo EPM stands out as a leader in the development of SHPs, taking advantage of the country's enormous hydroelectric potential and betting on SHPs as a path towards a sustainable energy future, with environmental responsibility.

Management in 2023

EPM obtained environmental approvals to continue with the development of the hydroelectric projects that are part of the portfolio of projects under study.

Approval was obtained for the modification of the environmental license of a hydroelectric project and a request was made to update its commissioning date. A connection point was requested from the UPME (Mining and Energy Planning Unit) for another project that is advancing in its technical and environmental feasibility study stages. In addition, as part of the current infrastructure optimization plan, progress was made in the incorporation of two new smaller plants. One of the plants has a connection point to the National Interconnected System and the other plant is in the process of final approval.

In addition, two small hydroelectric power plants are on the horizon for the affiliate CHEC. These projects, which already have a connection point to the power grid, are awaiting approval of the environmental license from Corpocaldas, the region's environmental authority.

Resources executed for studies of SHP projects (COP million)

Item	2021	2022	2023
EPM - Study of small hydroelectric power plants	449	0	337
Affiliates - Study of small hydroelectric power plants	912	0	0
Total budget	**1,361**	**0**	**337**

Source: *Executive Business Management Vice-Presidency.*

GRI standard content and corporate indicators

EPM-14 ***Resources earmarked for renewable energies***

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Central Hidroeléctrica de Caldas - CHEC*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Risaralda*

Business

- *Electricity*

Back to content

Sustainability Report 2023

Wind power

Grupo·epm

Wind power

Wind, a driving force behind the energy transition.

In Colombia, ***wind energy*** *is positioned as a viable alternative to generate electricity cleanly and sustainably. Grupo EPM, a pioneer in the generation of wind energy in the country, has recognized this enormous potential and continues to bet on the study and development of generation projects that take advantage of this renewable source of electric energy.*

Management in 2023

Grupo EPM plans to continue diversifying its energy mix through the development of **large-scale wind farms** in the short, medium and long term.

EPM advanced in the feasibility stages of one of the projects prioritized in the NCRE (Non-Conventional Renewable Energy) business growth initiative: a 201 MW wind farm located in La Guajira. This farm has already been environmentally licensed since 2022 and will not only contribute clean energy to the region, but will also boost the social development of the surrounding communities.

During the year 2023, compliance with the commitments of the prior consultation for this stage of the project has been verified, and one of the issues that has created the greatest impact is the electrification of the communities in the project's area of influence, which has given them access to an essential service that improves their quality of life. Work also began on obtaining the environmental license and engineering designs for the 500 kV connection line from the wind farm to the collector substation.

On the other hand, the Jepírachi wind farm, a pioneer of wind power in Colombia, ended operations due to the new challenges arising from Resolution 060 of 2019 of the CREG, which requires existing wind farms to have greater control and response to frequency variations, which technological requirements the wind farm cannot meet.

The Jepírachi park, which generated clean energy for more than a decade, is moving towards decommissioning, in accordance with the decommissioning and abandonment plan that was approved by Corpoguajira in October 2023.

Resources executed for wind projects (COP million)

Item	2021	2022	2023
Large-scale wind farm development - Studies	1,907	1,239	0

GRI standard content and corporate indicators

EPM-14 *Resources earmarked for renewable energies*

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*

Geography

- *Colombia – Guajira*

Business

- *Energy*

‹ Back to content

Sustainability Report 2023

Geothermal power

Grupo·epm

Geothermal power

The Earth's heat is converted into clean energy for Colombia.

This is ***geothermal energy****, a renewable resource that is produced by the natural heat in the earth's core and manifests itself as steam streams, thermal water springs and hot rocks. To produce electricity, pressurized steam is used, which is piped to a geothermal power plant.*

Geothermal energy is a green giant due to its abundance in several areas of Colombia. It is a renewable energy source that provides strength and reliability due to its permanence and high plant factors. It also protects the environment and the communities where it is developed with minimal or almost no environmental impact.

Management in 2023

The affiliate CHEC, with the support of Grupo EPM, has made a firm commitment to the development of geothermal energy in Colombia. In order to continue the studies and analysis to build a plant in the central-western part of the country, it has joined forces with strategic allies.

In 2023, CHEC formalized an alliance with Ecopetrol and Baker Hughes to promote geothermal energy in Colombia; the development of the initiative would allow it to generate between 50 and 100 MW of renewable energy, which will bring it closer to achieving this goal.

In addition, the affiliate made adjustments to its corporate purpose, which will allow it to continue the analyses in the stages of geothermal resource confirmation, exploitation, construction and development of the plant, in addition to adding experience and knowledge to the project.

Resources executed for geothermal project studies (COP million)

Item	2021	2022	2023
Exploitation of the geothermal resource to generate electricity in exploration phase - feasibility - studies	0	226	**55**

Source: *Executive Business Management Vice-Presidency.*

GRI standard content and corporate indicators

EPM-14 ***Resources earmarked for renewable energies***

Scope and coverage

Companies

- *Central Hidroeléctrica de Caldas - CHEC*

Geography

- *Colombia – Caldas*

Business

- *Energy*

Back to content

Sustainability Report 2023

Solar photovoltaic power

Grupo·epm

Solar photovoltaic power

Photovoltaic solar energy shines in Grupo EPM.

The sun, *that inexhaustible source of energy, offers us an attractive alternative for the future of the planet: photovoltaic solar energy. It is becoming increasingly accessible thanks to cost reductions, which makes it a viable option to complement Colombia's energy matrix.*

The growing development of small and large-scale solar projects showcases the potential of this clean and renewable energy, and Grupo EPM recognizes its value and is committed to the development of projects using this technology to complement the national energy mix with this renewable source.

Management in 2023

Grupo EPM, in its commitment to the energy transition, defined an ambitious strategy for the development of large-scale solar projects and self-generation solutions for customers in Colombia and in countries of its target market.

In the municipality of La Dorada in the Department of Caldas, EPM is building the first large-scale solar park of Grupo EPM: the 83 MW Tepuy solar farm. In 2023, approximately 85% of the progress of this farm was completed, with 100% of the construction of he substation, ancillary

services and civil works, and is moving towards the final stages of installation of mechanical and electrical components, in order to continue complying with the regulatory tests required by the National Interconnected System prior to its commissioning, a milestone that is expected to be met in June 2024.

Additionally, EPM was able to advance in the technical and environmental feasibility stages for two new photovoltaic solar energy farms, and continues to explore other solar alternatives to continue growing this energy source. In addition, it promoted the self-generation of solar energy with the commissioning of 27.68 MW for homes, businesses and industries, benefiting our customers and fostering the growth of clean energy in Colombia.

The Colombian affiliate CENS installed 9 self-generation solutions, benefiting more than 20 people. In addition, 6 educational institutions in the rural municipality of Tibú received solar photovoltaic systems, a solution to improve the quality of life of the community and provide them with access to more sustainable energy.

In turn, CHEC is also committed to clean energies that leverage the energy transition. In 2023, it advanced in the technical, economic and financial feasibility study stages to make viable the construction of solar photovoltaic power plants.

ESSA provided maintenance to the solar photovoltaic equipment of the educational institutions that benefited from the rural school electrification project, thus guaranteeing the supply of electric power, as well as the sustainability and continuity of this equipment.

Resources executed for solar projects (COP million)

Item	2021	2022	2023
Execution of projects by EPM	3,139	2,109	500
Execution of projects by the Group's affiliates	1,544	3,265	2,394
Total budget	**4,683**	**5,374**	**2,894**

Source: *Executive Business Management Vice-Presidency.*

GRI standard content and corporate indicators

EPM-14 *Resources earmarked for renewable energies*

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Electrificadora de Santander - ESSA*
- *Empresa de Energía del Quindío - EDEQ*
- *Centrales Eléctricas del Norte de Santander - CENS*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Quindío*
- *Colombia – Risaralda*
- *Colombia – Santander*
- *Colombia - Norte de Santander*

Business

- *Energy*

‹ Back to content

Sustainability Report 2023

Biogas power

Grupo·epm

Biogas power

Biogas *is a natural fuel produced from the decomposition of organic matter or waste where there is no oxygen.*

Grupo EPM is using the biogas generated at its wastewater treatment plants San Fernando (Itagüí) and Aguas Claras (Bello), and at the La Pradera sanitary landfill (northern Antioquia). The objective is to convert it into a source of clean and renewable energy, using it for self-generation in these same plants.

Management in 2023

The self-generation of energy from biogas and natural gas, which meets the internal demand of the Aguas Claras treatment plant, reached 84% of the energy demanded for its operation.

The self-supplied electric power consumption of the Aguas Claras plant in 2023 was 39,463 MWh-year: 22,851 MWh-year were generated with biogas for self-consumption and 16,612 MWh-year were produced with natural gas dryers. The sum of the electrical energy generated is equal to 84% of the energy required by the plant for its operation.

Biogas production (m^3) San Fernando wastewater treatment plant

Month	2021	2022	2023
January	462,077	492,523	**432,292**
February	471,416	450,195	**372,330**
March	486,616	523,115	**472,783**
April	460,978	501,276	**440,405**
May	487,289	512,403	**463,335**
June	519,313	391,128	**449,531**
July	569,077	325,384	**447,672**
August	573,488	318,189	**523,490**
September	690,155	260,627	**574,426**
October	553,769	273,019	**596,338**
November	481,548	334,649	**584,406**
December	473,771	452,273	**566,580**
Total	**6,229,497**	**4,834,781**	**5,923,588**

Biogas production (m^3) Aguas Claras wastewater treatment plant

Month	2021	2022	2023
January	1,007,404	987,261	**1,055,181**
February	850,459	941,302	**1,105,589**
March	883,618	1,053,021	**1,081,211**
April	1,000,901	984,906	**1,075,262**
May	1,008,389	987,001	**1,098,733**
June	960,957	867,691	**1,106,985**
July	1,021,801	936,074	**1,098,371**
August	976,834	930,806	**1,053,998**
September	967,453	870,598	**1,032,842**
October	1,024,318	982,904	**911,942**
November	979,228	906,480	**922,514**
December	1,094,571	970,724	**949,353**
Total	**11,775,933**	**11,418,768**	**12,491,981**

Resources executed for biogas projects (COP million)

Item	2021	2022	2023
Execution of projects by EPM	2,943	2,400	**0**
Execution of projects by the Group's affiliates	124	0	**1,199**
Total budget	**3,067**	**2,400**	**1,199**

Source: *Executive Business Management Vice-Presidency.*

Back to content

Sustainability Report

2023

Corporate Governance

Grupo·epm

Table of contents

Material issues

p.

Corporate Governance 883

- Completion of the relationship framework agreement 891
- Ethical management 895

Corporate Governance

It represents the principles, regulations, values, processes, and practices on which the business group is based, showing balance and independence between the Medellín District and the business management of Group EPM for making transparent decisions with its interest groups and in accordance with the business sustainability.

The demands made by the investors and other interest groups for adopting and promoting a strong governance for sustainability, require acting ethically and openly regarding the decision-making process within the Organization's government bodies and in the relationship with its employees and external interest groups.

Approaches

- **Balance between the decisions made by the Medellín District and the business management:** respect the Framework agreement on relations between the Medellín District and EPM, regarding the law that regulates the administrative decentralization and the Company's internal regulation to guarantee its political independence, its sustainability and business growth.
- **Ethic actions:** ethics in making decisions in the corporate government bodies to guarantee excellency and autonomy in the Grupo EPM administration, so it is an example of ethical practices in its actions and decisions.

Main achievements of 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Ethics in decision making in corporate governance bodies to guarantee excellency in the management of Grupo EPM, as well as its autonomy, so it will be an example in ethical practices in their actions and in the decision-making process.	Strengthen the ethical management of the government bodies.	Grupo EPM	▶ Evaluation of the board of directors and the general managers of the Group's companies. ▶ Openness and information disclosure on topics that have been reviewed and approved by the boards of directors and their supporting committees. Likewise, their attendance and duty fulfillment. ▶ Management and disclosure of the operations with the related parties and conflicting interests of the managers	**Total**
Respect the Framework agreement on relations between the Medellín District and EPM regarding the law that regulates the administrative decentralization and the Company's internal regulation to guarantee its political Independence, its sustainability and business growth.	Suggest a methodology to the Medellín District to evaluate the Framework Agreement on relations.	EPM	The evaluation methodology for compliance with the Framework Agreement on relations, was reviewed based on the recommendations of the experts on multilateral bodies of corporate governments. This work included examining the government standards for companies that are owned by the state, that support and supplement the evaluation methodology.	**Total**
	Adopt better management practices: redefine the process of nominating and removing the general manager of EPM.		A proposal for the nomination and removal of EPM's general manager was reviewed by experts of multilateral bodies' corporate government and it was adjusted according to their recommendations.	**Total**
	Participate in the process of relationship management in the electoral cycle (informative opening) and in the transition process.		Between November and December of 2023, a transition process took place due to the regional elections and the change of mayor, who represents EPM's owner. In this transition between the EPM committee and the committee designated by the elected mayor Federico Gutiérrez, key information regarding the business management of the 2020-2023 period was addressed.	**Total**

Main achievements of 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Respect the Framework agreement on relations between the Medellín District and EPM regarding the law that regulates the administrative decentralization and the Company's internal regulation to guarantee its political Independence, its sustainability and business growth.	Propose diversity criteria in the conformation of EPM's Board of Directors .	EPM	Criteria for the conformation of the Board of Directors, such as diversity, gender equity and inclusion were included in EPM's Corporate Government Code, to promote heterogeneous abilities and competencies, diverse participation in individual and collective thoughts, multiplicity of perspectives, knowledge and experiences, that significantly contribute to the decision-making process and to the performance of this collegiate body in an environment of constant evolution and competency.	**Total**
	Implement the actions of the relationship plan with the owner interest group.		100% of the relationship plan with the owner interest group was carried out. It had 5 initiatives, and its 2023 focus was participating in the relationship management process of the electoral cycle (informative opening).	**Total**
	Suggest corporate government criteria for including in the reputation survey that is conducted on EPM's interest groups		The methodology and criteria considered by EPM in the reputation survey of interest groups were reviewed, confirming that there are sufficient criteria to know the perception of the interest groups in relation to the independence and relationship between EPM and the District of Medellín. Therefore, it was not necessary to include additional criteria.	**Total**

Challenges 2024

Program, project, initiative, or action	Challenges	Company	Business	Geography
Respect the Framework agreement on relations between the Medellín District and EPM regarding the law that regulates the administrative decentralization and the Company's internal regulation to guarantee its political Independence, its sustainability and business growth.	Continue adopting the best management practices, redefine the process of nominating and removing the general manager.	EPM	All the Business	Colombia - Antioquia
	Suggest a proposal for strengthening the role and the process for nominating the EPM Board of Directors.			
	Suggest ways of strengthening the commitments established in the Framework Relationship Agreement.			
	Review the role of the Board of Directors' president, his duties, and his responsibility regarding representing EPM's positions.			
	Review the responsibilities of the EPM general manager.			
	Review the profile and the process for designating EPM's corporate auditor.			
Ethics in making decisions in the corporate government bodies to guarantee excellency and autonomy in the Grupo EPM administration, so it is an example of ethical practices in its actions and decisions.	Update the procedure for managing interest conflicts in the Grupo EPM.	Grupo EPM		All the locations
	Strengthen the process for designating, assessing the performance, potential, mobility, and removal of positions in the Group's top management.			
	Strengthen the assessment process for the board of directors of Grupo EPM's companies.			
	Review the ESG standard to include improvements in the Annual Report of EPM's Corporate Government.	EPM		Colombia - Antioquia
	Implement a mechanism to measure openness and information divulgation practices regarding EPM's corporate government.			

Sustainable Development Goals

Associated stakeholders

- *Grupo EPM People*
- *Community*
- *Customers and users*
- *Owner*
- *State*
- *Investors*
- *Suppliers and contractors*
- *Partners*

Contents of GRI standards and corporate indicators

Content GRI 3-3	*Management of material topics*

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Hidroecológica del Teribe - HET
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Risaralda
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander

- El Salvador
- Guatemala
- Chile
- México
- Panamá

Business

- Water
- Sanitation
- Electricity
- Gas
- Waste

Back to content

Sustainability Report

2023

Completion of the relationship framework agreement

Grupo·epm

Completion of the relationship framework agreement

*The **Framework Relationship Agreement** is a voluntary agreement signed in 2007 between the District of Medellín and EPM. Since then, it has been a fundamental pillar for EPM's Corporate Government, by determining the guidelines for the owner – company relationship, the principles that govern it and the specific obligations that originate for each party.*

The Agreement combines the District of Medellín's interest as an owner, with the growth, profitability and efficiency mandate that should drive EPM's management regardless of the strategy.

It is based on the best practices of the corporate government and complying with it allows to strengthen EPM's institutional framework, its sustainability and long-term direction, regardless of the changes in the district administration.

It is important to respect the Framework Relationship Agreement to guarantee the business sustainability and safeguard EPM as heritage for the citizens of Medellín and Colombia. Therefore, it is important to have a full commitment from the parties to comply with the provisions contained in it and be acountable to interest groups regarding their adoption.

Management in 2023

- Carry out the relationship plan with the owner.
- Review the evaluation methodology of the Framework Agreement with additional indicators proposed by EPM's corporate government team and experts on corporate government of multilateral bodies.
- Review the reputation survey applied to interest groups, to ensure that independence and autonomy of EPM regarding the Medellín District are measured.
- Incorporate diversity criteria in the conformation of the EPM Board of Directors.
- Advance in the construction of the Attachment proposals for the Framework Relationship Agreement to strengthen the role of the Board of Directors, the process for being a member of the Board of Directors and for designating EPM's General Manager.

Transition process with the new district administration.

The relationship plan with the owner interest group was carried out. Its actions were:

- Assist the Mayor's Office of Medellín in the procedures that EPM must handle with the Medellin Council and in addressing the requirements and information requests related to topics associated with the corporate government of EPM and the Group.
- Facilitate logistic resources and information required by EPM's Board of Directors to the carry out the sessions.
- Report the information regarding EPM's management and results.
- Participate in the relationship management process in the electoral cycle (informative opening).
- Activate the work plan of the Management Committee and the Corporate Government for the government bodies, because of the change in EPM's property representation (transition).
- Propose the Diversity policy to the EPM Board of Directors.

Between November and December of 2023, there was a transition process between the committee designated by EPM and directed by the acting general manager, Jorge Andrés Carrillo, and the committee designated by the elected mayor and directed by John Alberto Maya, general manager designated from January 1st of 2024.

For 11 days, EPM gave all the information regarding the business management to the transition committee designated by the elected mayor. A detail of the Company's state at the end of 2019, the main achievements and milestones of the 2020-2023 period, the challenges that must be faced in the following years and the emphasis on the challenges for the first one hundred days of the new district administration of Medellín were detailed.

All the information regarding the presentations and support material used during the sessions was provided. The information requests were addressed and the management reports of the Board of Directors and the General Manager (the latter with a Grupo EPM scope) during the 2020-2023 period were delivered.

A suggestion for updating the Corporate Government Code of EPM including the paragraph regarding Diversity, Gender Equity and Inclusion was presented to the Management committees and to the Corporate Government, which was unanimously approved. It was similarly approved in the Board of Directors of August second.

The Framework Relationship Agreement was consolidated. Its purpose is to strengthen the role of the Board of Directors and its articulation with the Manager in the decision-making processes, the process of assembling the Board of Directors, and the process for designating the General Manager of EPM. It was presented in the transition process with the new district administration. Additionally, the adjustments proposed by external experts in corporate government were included in the evaluation methodology of the Framework Agreement, which are based on the Corporate Government standards, and on indicators of administrative and financial autonomy in companies that are owned by the state.

The factors and characteristics that are established in the reputation survey have been validated. The conclusion is that these are in accordance with the corporate government's topics and that they aim to measure the interest groups' perception on EPM's independence and autonomy in relation to the District of Medellín.

Contents of GRI standards and corporate indicators

EPM-34 ***Management for complying with the Framework Relationship Agreement***

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*

Geography

- *Colombia – Antioquia*

Business

- *Water*
- *Sanitation*
- *Electricity*
- *Gas*
- *Waste*

Back to content

Sustainability Report

2023

Ethical management

Grupo·epm

Ethical management

Grupo EPM, aware that its actions and service provision have an impact on society, determined that sustainability would be a transversal axis to guide its actions and strategies.

This responsibility is expressed in the actions that the employees of each company carry out, because every behavior of the Grupo EPM people reflects the principles of ethical action and values. The different reports presented by Grupo EPM on its management reflect the ethical management that its business groups handle, by promoting transparent actions guided by corporate values and principles.

Ethical management, *as one of the actions of the "Corporate Government" material topic, specifically refers to ethics as a framework for actions and the decision-making process in the government bodies of the Group's companies (ownership, direction and management), so that the business administration is based on openness, efficiency and accountability principles.*

Management in 2023

EPM promoted and facilitated mechanisms so the government bodies and the Group's companies could act ethically. The main actions in 2023 were:

- Assessment processes of the board of directors and the general managers of the Group's companies.
- Openness and disclosure of information about the topics reviewed and approved by the board of directors and their supporting committees. Attendance and compliance with their roles were also considered.
- Management and disclosure of the operations with the related parties and interest conflicts of the administrators.

Additionally, the Company promoted strengthening the ethical management with training and communication strategies, using virtual platforms and internal media, to engage employees to incorporate the organizational principles and values in their actions.

To learn how Grupo EPM promotes the government bodies' ethical actions and decision-making check the *2023 Corporate Government Report*:

- Public accountability; Training for the EPM Board of Directors; Renowned actions of the EPM Board of Directors in 2023; Attendance to the EPM's Board of Directors and support committees; Management of EPM's Board of Directors committees; Assessment of EPM's Board of Directors; EPM's top management leadership; Evaluation of the General Manager and the Top Management of EPM; Operation with related parties; Interest conflicts; Shareholders assemblies and relationship with partners; Attendance to Grupo EPM's Board of Directors; Assessment of EPM's Board of Directors and Managers; Corporate management measurement; Relevant information; Corporate government planning; Grupo EPM's control environment; Corporate audit management; External audit plan; Comprehensive risk management; Compliance

The training and communication strategies developed by EPM to promote organizational principles and values were:

- "Tú Cuentas" (You count) sessions in Ituango, Rionegro and Santa Fe de Antioquia.
- "El servidor público: una manera de ser ético" (Public servant: a way of being ethical) conference on the celebration of the Public Servant Day.

- Publishing the 7 ethical dilemmas in Mi Canal.
- Creating screensavers with corporate values.
- 5 ABC events for directors, where 86 persons participated.
- Virtual class: "Ethics in action", where 2,817 persons participated.
- Virtual class: "Ethics V2" where 7,204 persons participated.
- Ethical climate measurement, where 3,030 employees participated.
- Publishing 2 briefs with an ethical message for directors.

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Aguas Regionales EPM*
- *Aguas Nacionales EPM*
- *Aguas del Oriente*
- *Aguas de Malambo*
- *Empresas Varias de Medellín - Emvarias*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Electrificadora de Santander - ESSA*
- *Empresa de Energía del Quindío - EDEQ*
- *Centrales Eléctricas del Norte de Santander - CENS*
- *Afinia*
- *Distribuidora de Electricidad del Sur - Delsur*
- *EPM Guatemala*
- *Tecnología Intercontinental -Ticsa*
- *Hidroecológica del Teribe - HET*
- *Elektra Noreste - ENSA*
- *Aguas de Antofagasta - Adasa*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Quindío*
- *Colombia – Risaralda*
- *Colombia – Santander*
- *Colombia - Norte de Santander*
- *Colombia - Malambo, Atlántico*
- *Colombia - El Caribe*

- *Chile*
- *El Salvador*
- *Guatemala*
- *México*
- *Panamá*

Business

- *Water*
- *Sanitation*
- *Electricity*
- *Gas*
- *Waste*

Back to content

Sustainability Report

2023

Financial strength

Grupo·epm

Table of contents

Material issues

p.

Financial strength 899

- Macroeconomic behavior 909
- Financial results 912
- Regulatory Management 920

Financial strenght

Management of the financial health of the Grupo EPM, with a vision of competitiveness and permanence of the Organization in the long term, considering growth limits and corporate governance practices, to generate economic value and contribute to sustainable human development and increase value for stakeholders.

Financial stability is essential for the competitiveness and permanence of the Organization.

The definition of financial and growth goals must consider organizational, natural and market conditions, since the achievement of results depends on them.

Proper management of financial resources requires a forward-looking vision for the business group, a focus on preventing risks associated with undue political interference and the application of controls that prevent the detour of resources to initiatives that are not aligned with its corporate purpose or the making of decisions that are contrary to long-term permanence

Financial soundness is the basis for responding to the commitment to generate economic value, which has a direct impact on the contribution to sustainable human development and the increase in value for stakeholders, including the return on the owner's investment.

The relationship with the District of Medellin in its capacity as owner is regulated by law, in the autonomy granted by the administrative decentralization and in the internal regulations; in addition, the Framework Relationship Agreement was signed in 2007 between the District of Medellin and EPM, a document that establishes the owner-company relationship. The detailed report on the Ownership Structure of EPM, which includes the follow-up of the framework agreement and the transfers, can be found here: *Corporate Governance Report*.

Approaches

Business competitiveness and sustainability: generation of competitive and sustainable offers that guarantee the Group's adaptability. EPM in the face of market conditions and its financial sustainability, through a portfolio of solutions and investments that consider stakeholder considerations. This approach is related to the service solution generation approach of the material topic Access and Affordability.

Regulatory management of rates: to strengthen the relationship and advocacy in public policy with the different entities to ensure the establishment of methodologies and rate schemes that have value for both the business group and the users in terms of access to the service and financial efficiency. Differentiated schemes that may be contemplated in such methodologies allow for greater accessibility.

Main achievements 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Water and sewage rates	Process before the CRA the modification of rates for water and sewage services.	Grupo EPM	In 2023, the CRA accepted the partial modification of the rate for water and sewage services provided by Aguas de Malambo.	Partial
	Respond in a timely manner to the requests made by the CRA regarding the process of issuing the next rate framework for large water and sewerage service providers.	EPM	EPM attended the survey conducted by the CRA related to asset efficiency, water losses, court rulings, innovation and technology in the provision of public water and sewerage services. It also received a visit from the Commission to review and provide relevant information for the studies of the Loss Management Plan, social management and environmental sustainability.	Total
Rates of service	Process before the CRA the modification of Emvarias' final disposal cost rates .	Grupo EPM	In 2023, the CRA accepted the partial modification of the cost of final disposal of the sanitation service provided by Emvarias.	Partial
	Respond in a timely manner to requests made by the CRA regarding the process of issuing the next rate framework for large wastewater service providers.	EPM	Emvarias attended the visits and information requirements of the CRA in the process of issuing the next rate framework for large wastewater service providers.	Total
Electricity rates	Manage the analysis and comments on the proposed Marketing Compensation Methodology.	EPM	The commercialization methodology was not advanced due to lack of commissioners, the commercialization work was focused on the recovery of rate option balances, modification of the rate formula, deferral of payment of transactions in the wholesale market, among others, in addition, the Company participated in the proposal of the commercialization rate methodology made by Asocodis.	Partial
	Manage comments and analysis of the Transmission Remuneration Methodology.		The transmission methodology was not advanced despite being on the regulatory agenda, due to the lack of commissioners, and the regulation focused on issues of justice and rates .	Not met

Main achievements 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Gas rates	Manage the approval of natural gas distribution and retail marketing charges.	EPM	The distribution charge for the integrated market served by EPM was approved with Resolutions 502 015 and 016 of 2022. By means of Resolutions 502 008 and 502 009 of 2023, the CREG answered the appeals filed against the resolutions of approval of charges, recognizing the replacement of assets, AOM and investment. The Commission has not published the circular establishing the information to be submitted for the approval of the fixed marketing charge, which is expected to be approved in 2024.	Partial
Liquidity strategies	Obtain sources of financing that allow maintaining adequate liquidity levels in the companies of the Grupo EPM.	Grupo EPM	In managing the financing of the amounts required for 2023 and for partial funding for 2024, two long-term contracts were signed, one with the AFD (French Development Agency) for an amount of USD189.8 million for the partial financing of the investment plan and another with Banco de Occidente for an amount of COP 200 million to cover general corporate uses. Similarly, in November and December 2023, short-term credit agreements were signed with BNP Paribas in the amount of USD200 million and Banco Santander in the amount of USD100 million to finance the Company's working capital. The exchange risk management of financial liabilities was also advanced, where EPM executed USD-COP Swap financial derivatives operations on an underlying for USD604 million, minimizing the risk of USD exchange rate and interest rate (Term SOFR) associated to the cash flows of the Club Deal loan contracted with the international bank in 2022.	Total
	In 2023, we will work on the development of activities that will lead to capture efficiencies to achieve cost and expense optimization goals.		Identification of 260 initiatives to optimize investments, costs and expenses, for which action plans will be implemented to capture benefits.	Total

Challenges 2024

Program, project, initiative or action	Challenges	Company	Business	Geography
Water and sewerage rates	Respond in a timely manner to the requests made by the CRA regarding the process of issuing the next rate framework for large water and sewage service providers.	EPM	Water and sanitation	Colombia
Rates of service	Respond in a timely manner to the requests made by the CRA regarding the process of issuing the next rate framework for large wastewater service providers.		Solid waste management	Colombia - Antioquia
Electricity rates	Manage analysis and comments to the modification of any element of the rate formula or the formula itself.		Energy - T&D	
	Manage analysis on energy generation, transmission, distribution and commercialization issues.			
Gas rates	Manage analysis and comments to the modification of any element of the rate formula or the formula itself.		Gas	
	Manage analysis on gas production, transportation, distribution and commercialization issues.			
Liquidity strategies	Obtain sources of financing that allow maintaining adequate liquidity levels in the companies of the Grupo EPM.	Grupo EPM	All businesses	All geographies
	In 2024, work will continue on the action plans for value capture initiatives, and subsequent implementation in the subsidiaries of the Grupo EPM.	EPM		

Note: * Commercial operation: resources necessary for the provision of residential public utilities.

Sustainable Development Goals

Associated stakeholders

- *Customers and users*
- *Community*
- *Owner*
- *Government*
- *Investors*
- *Suppliers and contractors*
- *Partnerships*

Contents of GRI standards and corporate indicators

Content GRI 3-3	*Management of material issues*
EPM-13	*Pricess by type of service*
EPM-21	*Resources generated by liquidity strategies*
EPM-22	*Ebitda EPM*
EPM-23	*Ebitda Grupo EPM*
EPM-24	*EPM Ebitda Margin*

Contents of GRI standards and corporate indicators

EPM-25	Ebitda margin Grupo EPM
EPM-26	EPM Net Margin
EPM-27	Grupo EPM Net Margin
EPM-32	Covenant Grupo EPM (Debt / Ebitda)

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Hidroecológica del Teribe - HET
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Risaralda
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico

- Chile
- El Salvador
- Guatemala
- México
- Panamá

Business

- Water
- Sanitation
- Waste
- Electricity
- Gas

Back to content

Sustainability Report

2023

Macroeconomic behavior

Grupo·epm

Macroeconomic behavior

Over the course of 2023, economic activity in most of the countries where Grupo EPM has a presence decelerated compared to its 2022 records. This behavior was much more marked in Chile, Colombia and Panama. The causes of the lower activity include the loss of dynamism of domestic demand in response to the contractionary monetary policy, mainly in the household consumption component and investment in machinery and equipment, housing and civil works. This result occurred in a context of international financial restrictions, geopolitical conflicts, low global trade growth, structural problems in the Chinese economy, as well as adverse weather events. As for inflation, significant decreases were observed in all countries, bringing it closer to the central banks' target range, although in Colombia this convergence process has been more delayed, because it has been limited by upward pressures on the price of services. In the foreign exchange markets, the behavior of currencies against the dollar was mainly determined by changes in the expectations of interest rate cuts by the Fed (US Federal Reserve), by some idiosyncratic factors and specific events that generated a lower demand for risk assets during certain periods and a greater flow of remittances.

Management in 2023

In 2023, economic activity, where Grupo EPM has a presence, slowed down compared to its 2022 records, an effect marked by the loss of dynamism in domestic demand, mainly in household consumption, investment in housing, civil works, machinery and equipment.

The main risks include growing geopolitical and trade tensions, weak demand as a result of restrictive monetary policy, more persistent inflation, deepening problems in China's real estate sector and possible supply shocks from adverse weather events.

Variable	Colombia	México	Panamá	Chile	El Salvador	Guatemala
IPC (annual variation)	9.28 %	4.66 %	1.92 %	3.94 %	1.23 %	4.18 %
IPP/IPM (anunal variation)	-0.79 %	1.38 %	N.A.	-0.69 %	1.83 %	N.A.
Tasa de Cambio (end of year)	3,822.00	16.92	N.A.	884.59	N.A.	7.83
Devaluation/ Revaluation (annual)	-20.54 %	-13.11 %	N.A.	2.92 %	N.A.	-0.32 %

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Aguas Regionales EPM*
- *Aguas Nacionales EPM*
- *Aguas del Oriente*
- *Aguas de Malambo*
- *Empresas Varias de Medellín - Emvarias*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Electrificadora de Santander - ESSA*
- *Empresa de Energía del Quindío - EDEQ*
- *Centrales Eléctricas del Norte de Santander - CENS*
- *Distribuidora de Electricidad del Sur - Delsur*
- *EPM Guatemala*
- *EPM Chile*
- *Tecnología Intercontinental -Ticsa*
- *Hidroecológica del Teribe - HET*
- *Elektra Noreste - ENSA*
- *Aguas de Antofagasta - Adasa*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Quindío*
- *Colombia – Risaralda*
- *Colombia – Santander*
- *Colombia - Norte de Santander*
- *Colombia - Malambo, Atlántico*

- *Chile*
- *El Salvador*
- *Guatemala*
- *México*
- *Panamá*

Business

- *Water*
- *Sanitation*
- *Waste*
- *Electricity*
- *Gas*

Back to content

Sustainability Report 2023

Financial results

Grupo·epm

Financial results

EPM, as a decentralized entity of the District of Medellín, has the obligation to periodically report its financial results. In turn, as an international bond issuer, it has the commitment with its investors to keep them informed about the results and different situations that may positively or negatively impact the results of EPM and the Group.

To guarantee the transparency of the financial information, an external entity reviews the quality and veracity of the information.

Management in 2023

EPM's financial results are given in the context of an economic environment that recorded a deceleration in economic growth of 0.6 % compared to the figure reached in 2022 of 7.3 %. The CPI and PPI indices show a downward trend, a behavior contrary to that presented in recent years, with impacts on operating costs, investments in infrastructure and regulated items and services.

Indicator	2023		2022		Variations %		Variations $	
	Group	EPM	Group	EPM	Group	EPM	Group	EPM
Revenues	37,537	16,228	32,222	13,464	16 %	21 %	5,314	2,763
Ebitda	10,633	6,837	9,759	5,717	9 %	20 %	874	1,120
Net income	**3,562**	**3,765**	**4,126**	**3,036**	**-14 %**	**24 %**	**-564**	**729**

Source: *Executive Vice President Finance and Investments*

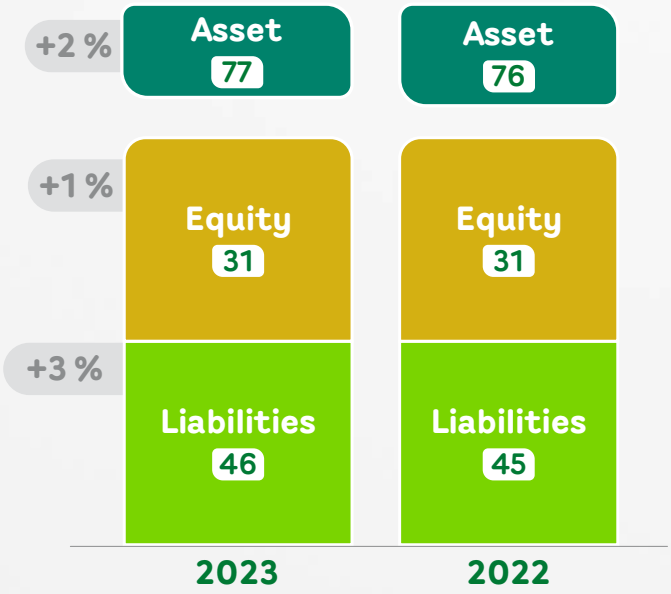
Note: Figures in billions

Grupo EPM reached consolidated assets of COP 77 trillion for a growth of 2 %. Investments in infrastructure amounted to COP 5.2 billion, guaranteeing continuity in the provision of public services in the geographies where we are present.

On the other hand, the liabilities of the Grupo EPM grew 3 %, from COP 45 billion to COP 46 billion, due to the disbursements managed for the financing of investment projects, especially in EPM. Equity presented a growth of 1 %, remaining at COP 31 billion.

Grupo EPM obtained credit disbursements for COP 6.5 billion of which COP 3 billion corresponds to disbursements to EPM and the rest to the Group's subsidiaries, these were acquired in order to finance investment plans, working capital and for debt management operations.

Statement of Financial Position



As of December 31, 2023, consolidated revenues amounted to COP 37.5 billion pesos, presented a 16% growth, equivalent to COP 5.3 billion, with respect to the same period of the previous year.

As for ebitda, it amounted to COP 10.6 billion, an increase of 9 %, COP 874 MM, with respect to the previous year. The ebitda margin amounted to 28 %, compared to the 30 % obtained in 2022, where:

The Energy Distribution segment contributed 41% of the Group's total ebitda. The decrease was because revenues grew in lesser proportion to costs and expenses as a consequence of the higher cost of purchased energy, derived from the behavior of stock market prices due to the El Niño phenomenon, the effect of macroeconomic variables and a greater deterioration of the portfolio.

The Transmission segment recorded a growth of 9 %, equivalent to COP 34,605 million, due to an increase in revenues in greater proportion to costs and expenses and the inclusion of new projects that increased the annual transmission quota in the case of the subsidiary Trelec.

The Power Generation segment contributed 37 % with COP 4.0 billion. Its growth was 38 %, which is explained by the increase in the average selling price of energy in the stock market despite the lower energy generation.

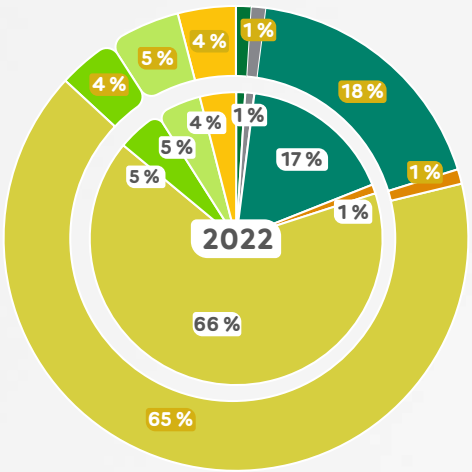
The Water and Sanitation segments: water supply, wastewater management and solid waste management, together contributed 16 % with COP 1.6 billion and a growth of 8 %, mainly due to the addition of new customers and rate adjustments in accordance with the Colombian regulatory framework.

The Gas segment contributed 2 % with COP 263,830 million. The 26 % growth is due to the increase in revenues, mainly in the wholesale market.

Grupo EPM's net income of COP 3.6 billion presented a decrease of 14 % compared to the same period of the previous year, and a net margin of 9 % compared to 13 % obtained in 2022, as a result of a combined effect of growth in operating costs and expenses partially offset by a favorable net income from the accumulated exchange difference of COP 171 MM, resulting from the revaluations of the currencies of Colombia, Mexico and Guatemala, with 20.54 %, 12.62 % and 0.32 %, respectively, as well as hedging strategies carried out by the Company to contain exchange rate fluctuations.

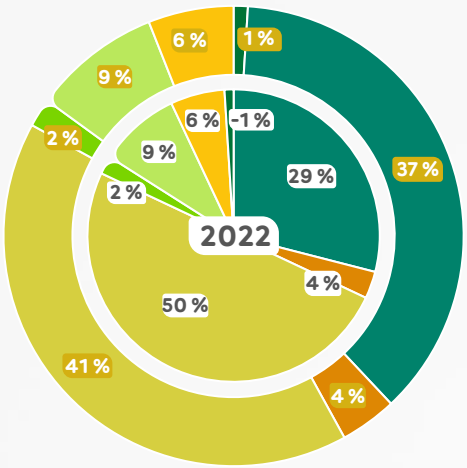
Revenue

2023



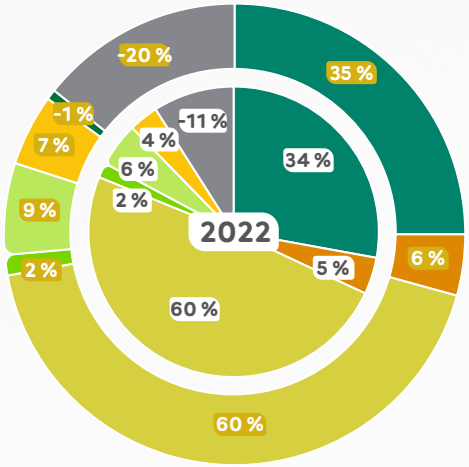
Ebitda

2023



Comprehensive income

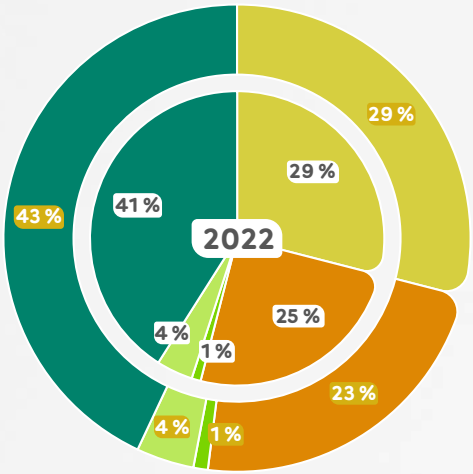
2023



Energy Generation | Energy Distribution | Energy Transmission | Gas | Water Supply | Wastewater Management | Solid Waste Management | Other segments

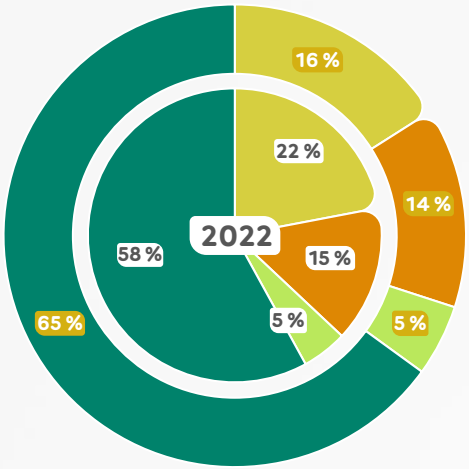
Revenue

2023



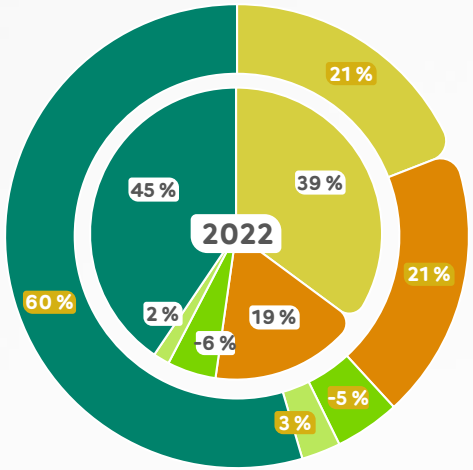
Ebitda

2023



Comprehensive income

2023



EPM | Energy Subsidiaries Colombia | Energy Subsidiaries abroad | Subsidiaries waters Colombia | Subsidiaries waters abroad

At the end of 2023, EPM had revenues of COP 16.2 billion, an ebitda of COP 6.8 billion and a net income for the year of COP 3.8 billion.

EPM's net result was COP 3.8 billion, 24% higher than the previous year, which includes the result of the subsidiaries through the equity method for COP 1.6 billion, which means that the subsidiaries contributed 41 % to the Company's profit.

Total assets amounted to COP 63 billion, equity COP 29 billion and liabilities COP 33 billion, figures that compared to December of the previous year showed a growth of 5% for total assets and 10% and 1 % for liabilities and equity, respectively.

In 2023, EPM delivered to the District of Medellin transfers for COP 1.7 billion, COP 911 MM ordinary corresponding to 30% of the profits of the year 2022, and the remaining 25% equivalent to COP 837 MM to extraordinary transfers.

Contents of GRI standards and corporate indicators

EPM-22	*Ebitda EPM*
EPM-23	*Ebitda Grupo EPM*
EPM-24	*EPM Ebitda Margin*
EPM-25	*Ebitda Margin Grupo EPM*
EPM-26	*EPM Neto Margin*
EPM-27	*Grupo EPM Neto Margin*
EPM-32	*Covenant Grupo EPM (Debt / Ebitda)*

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- EPM Chile
- Tecnología Intercontinental -Ticsa
- Hidroecológica del Teribe - HET
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Risaralda
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico

- Chile
- El Salvador
- Guatemala
- México
- Panamá

Business

- Water
- Sanitation
- Waste
- Electricity
- Gas

‹ Back to content

Sustainability Report

2023

Regulatory Management

Grupo·epm

Regulatory Management

Management before the Colombian National Government and regulatory entities for the application of rate methodologies that are fair and efficient for customers; these are socialized to customers and users prior to their application to facilitate the understanding of the factors that affect the rate.

The rates of the residential public utilities provided by Grupo EPM are regulated, for this reason, the Organization is permanently working with the Colombian Government and the regulatory entities so that the rate methodologies that are defined are fair and efficient for the users of these services. The competitive rate is a purpose of the Grupo EPM, and for this reason, additionally, it works in a scheme of business efficiency in its costs and processes.

In the case of large consumers of electricity and/or natural gas, Grupo EPM offers rates to be negotiated with its customers with respect to the marketing and supply value components; in this case, the other components of the rate formula are regulated (transportation, distribution, transmission, losses and restrictions) and the approved values are applied.

Management in 2023

Regulatory management:

- Allows the recovery of costs, expenses and investments and the assurance of the provision of residential public utilities in the long term.
- Impacts stakeholder confidence in the Organization by influencing their perception of the fairness of rates.

Invoice

The invoice is the Company's means to collect payment for the services it provides and to inform customers and users. With a personalized format, close and easy to interpret, it is intended to facilitate the understanding

of the values billed and keeping the community updated on different topics related to business management, the legal, safe and efficient use of public utilities and environmental care tips.

In 2023 we ensured that the adjustments in additional elements required by the emerging regulations had a simple approach and did not impact the understanding and clarity that was intended with the redesigns implemented in 2022, additionally we monitored the user's perception regarding the understanding of the bill, which has been improving since its redesign in March 2022, today 92.49% of the respondents consider that it is understandable, and we started from 87.95% before the redesign.

Additionally, and with the purpose of reducing the flow in the channels, due to the transaction orientation of the invoice, a decrease of 26.95% was identified comparing 2022 and 2021 and 58.44% for 2023 and 2022, which showed that the clearer our invoice is, the lower the flow of people in the customer service channels will be.

We continue to work together within the Organization to find the most appropriate ways of communicating to ensure that the invoice is a collection document, in line with the strategies that are being developed to increase digital penetration.

Comparison of rates with the main cities (Benchmarking)

Comparison of EPM's rates with the main cities, December 2022 to December 2023.

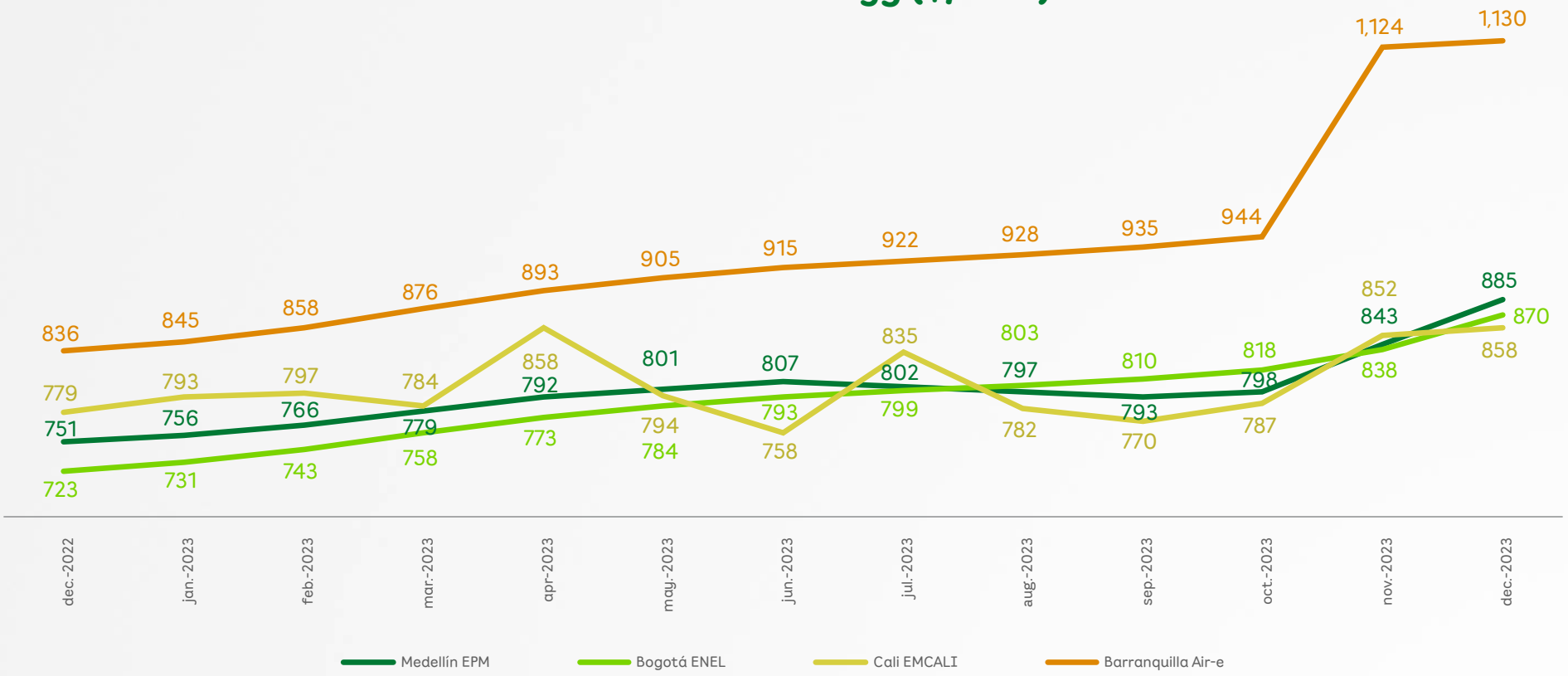
Comparative in 2023

The considerations for calculating the average rate are as follows:

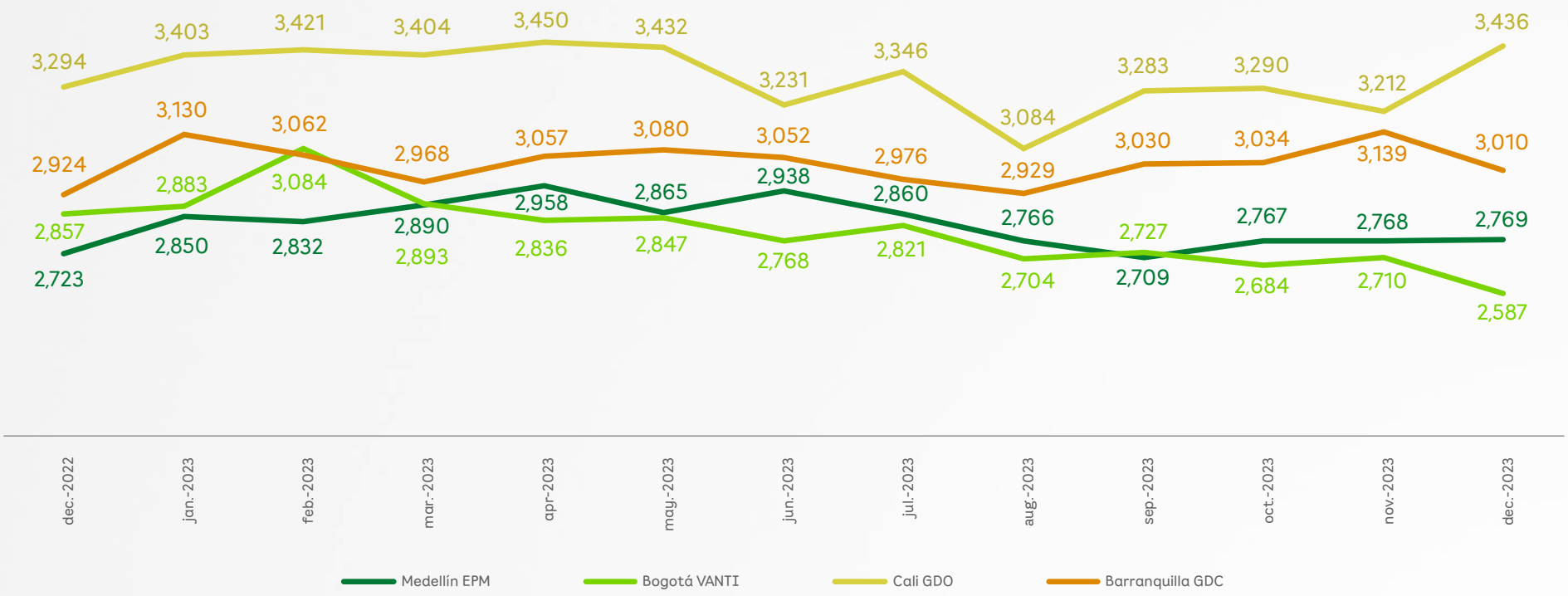
- The energy rate does not have a fixed charge, there is only the unit cost Cu expressed in $/kwh, which is considered the variable charge
- The average rate corresponds to the combination of the fixed and variable charge in a single charge.
- The information on fixed and variable charges is public and is taken from each company's website. The data of stratum 4 of each city, which is the one without subsidies or contributions that depend on the municipality where the service was provided. For energy Cu, the month following the publication was taken, considering that the intention is to show the rates that apply in the customer's monthly billing.
- The companies considered the largest or with the largest number of customers in each reference city are taken as a reference.
- The average rate , used to compare services with fixed charges, corresponds to an internal calculation with EPM's consumption to combine fixed and variable charges; energy does not have a fixed charge.

Charts by service

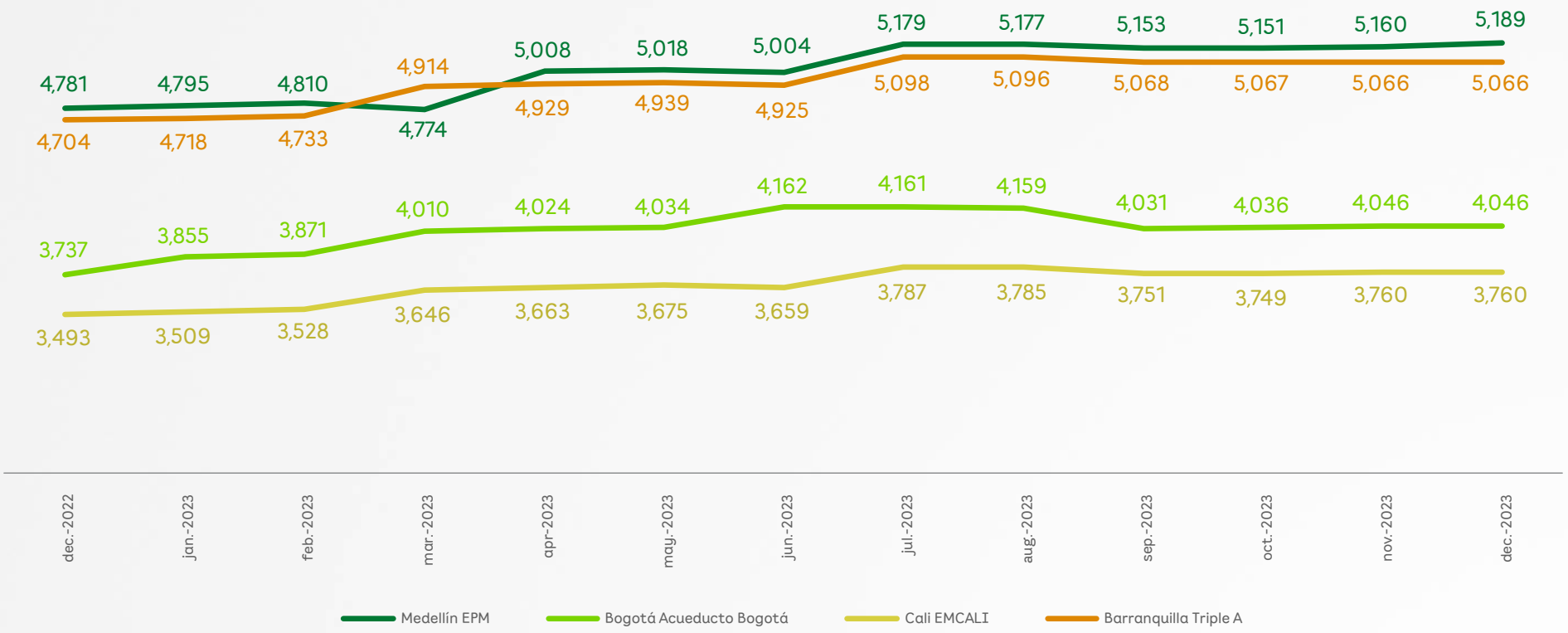
Unit Cost - Cu energy ($/kWh)



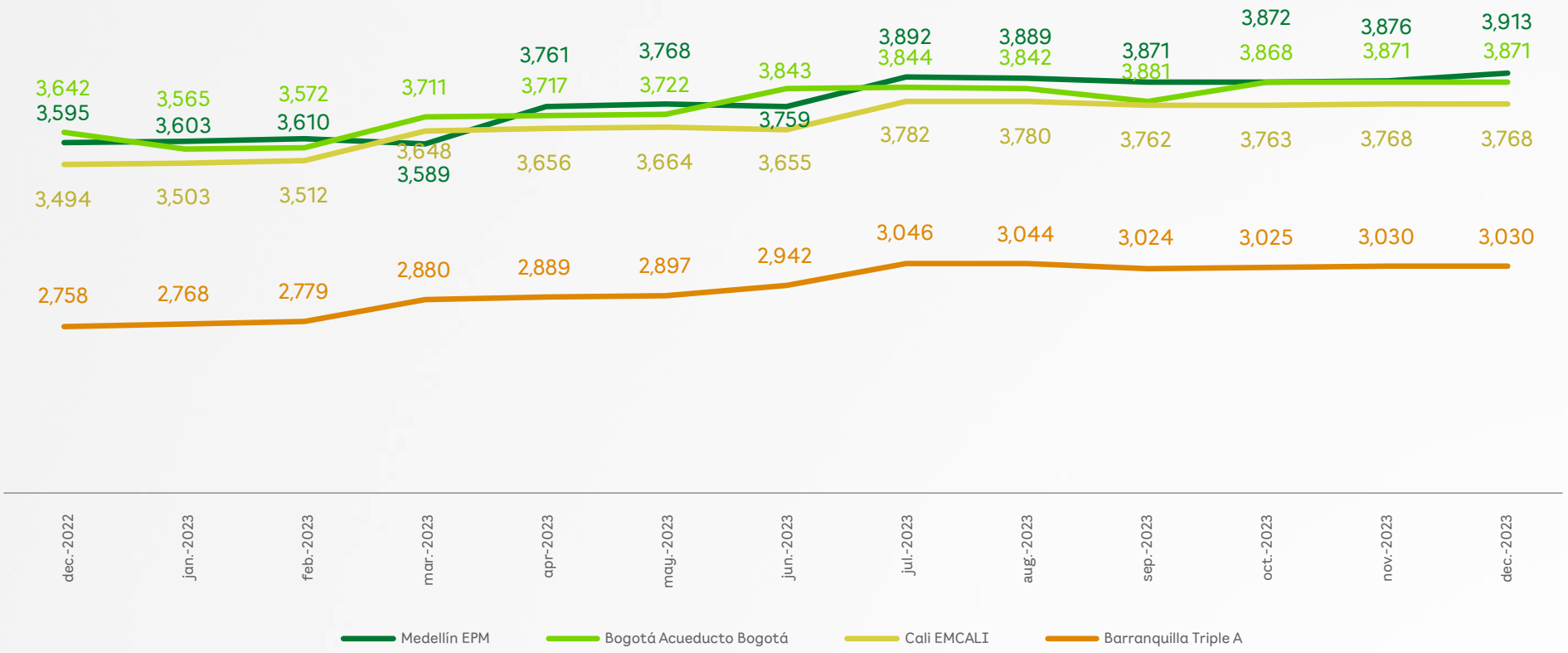
Average rate gas ($/m³)



Average water rate ($/m³)



Average sewer rate ($/m³)



Water and sewage rates

The provision of domiciliary public utilities of water and sewage is regulated in Colombia, reason why the Grupo EPM makes permanent efforts before the National Government and the decentralized regulation entities, surveillance and control, to contribute to the welfare of the population, through market conditions that allow providing these public utilities in compliance with the regulatory standards of quality, continuity and coverage at competitive rates, which also guarantee the financial sufficiency of the organization.

Management in 2023

The regulatory management of water and sewage services in 2023 was associated with the rate modification submitted to the CRA (Comisión de Regulación de Agua Potable y Saneamiento Básico) by the subsidiary Aguas de Malambo and the rate modification required by the subsidiary Aguas Regionales to guarantee the rate criterion of financial sufficiency established in Law 142 of 1994. We also actively participated in the construction of the National Development Plan 2022-2026 "Colombia World Power of Life"; we updated the Regulated Works and Investment Plans (POIR) of Aguas de Malambo and Aguas Regionales; and we updated the rates for water and sewage services of all the Colombian subsidiaries of the Grupo EPM for particular operating costs and average environmental costs. We were present in the citizen participation spaces enabled by the Ministry of Housing, City and Territory, Congress, CRA and the Superintendence of Household Public Utilities for the issuance of new regulations.

- In 2022, Aguas de Malambo submitted a particular rate modification request to the CRA. In 2023, after attending to a writ of evidence decreed by the CRA, this entity published in April Resolution CRA 980, which partially granted the request presented, and only approved the modification of the projection of users and consumption, justified by the low urban development and affecting the financial sufficiency criterion. An appeal for reconsideration was filed against the rejected adjustments (Modification of the Regulated Works and Investments Plan (POIR and the implementation of the NEP Economic Level of Losses), however, the Commission ratified its decision through Resolution CRA 982 of June 27, 2023. Therefore, in accordance with the sixth paragraph of Article 2.1.2.2.1.4.3.10 of Resolution CRA 943 of 2021, the POIR of Aguas de Malambo for water and sewerage services was updated during the second half of the year, in order to reflect the reality of the execution of investments during the first seven years of application of the current rate methodology, without modifying the present value of investments and maintaining the goals of service provision.
- With respect to the preparation of the rate modification for the subsidiary Aguas Regionales, it was identified that there is no effect on the financial sufficiency criterion that can be explained by particularities external to the subsidiary, a necessary condition to submit the particular rate modification request for the POIR and the IPUF (loss index per billed subscriber) to the CRA. Therefore, use was again made of the sixth subsection of Article 2.1.2.2.1.4.3.10 of Resolution CRA 943 of 2021, to update the POIR for aqueduct and sewerage of Aguas Regionales, this exercise culminated with the approval of the Board of Directors on December 13, 2023.
- The Regulation Management of the Grupo EPM participated in the construction of the PND (National Development Plan). For the drinking water and basic sanitation sector, 15 proposals were submitted to be included in the Bases document, which are framed within the following 4 transformations proposed by the Government: i) Management of territories around water: the following were initiatives related to technical and regulatory adjustments to the retributive rate, implementation of sustainable drainage and

policies for subnormal urban settlements. ii) Human security and social justice: the regulation of the minimum vital drinking water and sewage system was proposed. iii) Productive transformation, internationalization and climate action: waste recovery was proposed as a fundamental milestone of the circular economy; the promotion of the use of biosolids as a product that enhances soil restoration; the use of products resulting from wastewater treatment; the use of intelligent measurement instruments for APSB; and the promotion of the Law on Integral Solid Waste Management with a focus on the circular economy. iv) Regional convergence: it was requested to include guidelines for the regionalization of ABS services; the implementation of regulatory improvement practices; the harmonization between land use plans and residential public services; establish a roadmap for the targeting of subsidies; subsidize connections to services provided under prepaid schemes; and develop massive campaigns that promote the valuation of residential public services, the culture of payment and the efficient use of resources. Most of the proposals submitted were included in the Basis document, some partially and others completely. Additionally, some of them were included in Law 2294 of 2023. However, it is important to keep in mind that the mere fact that our proposals are contained in the Bases, allows the regulations associated with them to be developed throughout the government's term.

- All the rate updates required by the standard were carried out with peremptory nature related to specific operating costs, environmental fees and additional environmental investments for the protection of watersheds and water sources, in all subsidiaries.
- The Ministry of Housing, City and Territory issued the draft resolution adopting the Methodological Guide for the Intradomiciliary Drinking Water and Basic Sanitation Connections Program.

- The Congress of the Republic issued the following bills:
  - PL 271 of 2022, which guarantees the mechanisms for the protection of the right to community water management, related environmental aspects, and establishes a legal framework for the relations of the Organized Communities for community water management with the State. PL 013 of 2023: whereby guidelines are formulated for the social public policy in favor of stores, neighborhood shops and neighborhood bakeries in the country, and other provisions are issued. PL 052 of 2023: which partially modifies Law 56 of 1981.
  - PL 112-22023: establishing guidelines for the collection of the security and citizen coexistence fee payable by departments, municipalities and districts, and other provisions.
  - PL 259 of 2023: amending Law 1176 of 2007 in relation to the resources for potable water and basic sanitation of the General System of Participations.
  - PL 292 of 2023: adopting measures regarding the unified property tax, partially amending Law 44 of 1990, repealing Law 1995 of 2019 and enacting other provisions. During the second half of the year, CRA submitted for participation the draft resolution extending the duration of the first phase of implementation of the IUS (Single Sectoral Indicator), as established in Article 1.6.5.5.2.2.7. of Resolution CRA 943 of 2021. For its part, the Superintendency of Residential Public Utilities issued for participation the draft resolution by which guidelines are given to residential public utilities providers within the framework of user protection.

EPM Acueduct - Full Rate (Stratum 4)

Fixed charge (COP/User)	2021	2022	2023
Metropolitan	N.A.	N.A.	**N.A.**
Regional Market (Interconnected system, Caldas and Rionegro)	7,047	8,020	**8,685**
Barbosa	7,021	7,990	**8,652**

Variable charge (COP/m³)	2021	2022	2023
Interconnected System	N.A.	N.A.	**N.A.**
Caldas	N.A.	N.A.	**N.A.**
Regional market (interconnected system, Caldas and Rionegro)	3,400	4,048	**4,415**
Barbosa	2,671	3,398	**3,730**

Source: *Dirección Comercial Agua y Saneamiento*

Note: Values as of December of each year in current prices, showing the evolution of the charges collected from users. The variations correspond mainly to the indexation of the value of the rates with respect to the CPI, thus allowing the recovery of costs and the provision of a quality service. Additionally, the variable aqueduct charge of the Regional Market presented variation due to the finalization of the CMP2, ac (average cost for additional environmental investments for the protection of basins and water sources for year 2), which was approved by General Manager's Decree N°2022-DECGGL-2383 of December 01, 2022. There was also the update of the CMT (average costs of environmental charges) corresponding to the 2022 period for the Regional Market and the APS (Service Provision Area) Barbosa, which were approved by General Manager's Decree No. 2023-DECGGL-2417 of July 16, 2023. Finally, the CMO (average operating costs) and the CMI (average investment cost) were updated as a consequence of the variation in the particular unit operating costs according to General Manager's Decree N°2023-DECGGL-2425 of September 21, 2023.

These values correspond to the full rate , i.e. without the inclusion of subsidies or contributions determined by each municipality.

Due to the conformation of the Regional Market, no values are presented as of December 2021 for the interconnected system, Caldas and the generality of the service provision area called Metropolitan.

The rates by stratum and sector can be consulted in *EPM's water and basic sanitation rates.*

EPM Sewerage - Full rate (Stratum 4)

Fixed charge (COP/User)	2021	2022	2023
Metropolitan	N.A.	N.A.	**N.A.**
Regional Market (Interconnected system, Caldas and Rionegro)	4,053	4,613	**4,995**
Barbosa	4,026	4,582	**4,962**

Variable charge (COP/m^3)	2021	2022	2023
Interconnected	N.A.	N.A.	**N.A.**
Caldas	N.A.	N.A.	**N.A.**
Regional Market (Interconnected system, Caldas and Rionegro)	2,680	3,170	**3,463**
Barbosa	1,557	1,873	**2,140**

Source: *Dirección Comercial Agua y Saneamiento*

Nota: Values as of December of each year in current prices, showing the evolution of the charges collected from users. The variations correspond mainly to the indexation of the value of the rates with respect to the CPI, thus allowing the recovery of costs and the provision of a quality service. Additionally, the variable sewerage charge of the Regional Market presented a variation due to the update of the CMO (average operating cost) of the sewerage domiciliary public service as a consequence of the variation in the price of the interconnection contract CT-2013-002297-A421 of the Regional Market, which was approved by General Manager's Decree N°2022-DECGGL-2383 of December 01, 2022.

The average costs of environmental fees (CMT) for the 2022 period for the Regional Market and APS Barbosa were also updated and approved by General Manager's Decree N°2023-DECGGL-2417 of July 16, 2023. Finally, the average operating costs and the average investment cost were updated as a consequence of the variation in the particular unit operating costs according to General Manager's Decree N°2023-DECGGL-2425 of September 21, 2023.

These values correspond to the full rate , i.e. without the inclusion of subsidies or contributions determined by each municipality.

Due to the conformation of the Regional Market, no values are presented as of December 2021 for the interconnected system, Caldas and the generality of the service provision area called Metropolitan.

The rates by stratum and sector can be consulted in *EPM's water and basic sanitation rates.*

Aguas Regionales

Aguas Regionales Acueducto - Full rate (Estrato 4)

Fixed charge (COP/User)	2021	2022	2023
Occidente	6,397	7,279	**7,883**
Urabá	6,094	6,935	**7,510**

Variable charge (COP/m³) - West	2021	2022	2023
Santa Fe de Antioquia	2,109	2,357	**2,547**
San Jerónimo	2,137	2,272	**2,478**
Sopetrán	2,455	3,039	**3,423**
Olaya	2,234	2,761	**3,085**

Variable Charge (COP/m³) - Urabá	2021	2022	2023
Apartadó	1,788	2,085	**2,276**
Carepa	1,756	2,017	**2,200**
Chigorodó	1,897	2,120	**2,291**
Mutatá	1,724	1,931	**2,118**
Turbo	2,283	2,696	**2,913**
Bajirá	1,724	1,931	**2,118**
El Reposo	1,788	2,085	**2,276**

Source: *Dirección Comercial Agua y Saneamiento*

Note: Values as of December of each year in current prices, showing the evolution of the charges collected from users. The variations correspond mainly to the indexation of the value of the rates with respect to the CPI, thus allowing the recovery of costs and the provision of a quality service. Additionally, some service provision areas presented variation in the variable charge due to the application of the average cost for additional environmental investments for the protection of basins and water sources for the domiciliary public water supply service of the municipalities of Apartadó, Carepa, Chigorodó and Turbo, in accordance with the provisions of Resolution CRA 943 of 2021 and which was approved by Resolution of the General Manager N°20220910002053-24 of October 24, 2022.

The application of the CMT (average costs of environmental fees) corresponding to the 2022 fiscal year was also made, approved by Resolution of the Substitute Manager N°20230910001251-14 of July 14, 2023. Finally, the average operating costs were updated, as a consequence of the variation in the particular unit operating costs approved by Substitute Manager's Resolution N°20230910001613-19 of September 19, 2023.

These values correspond to the full rate , i.e. without the inclusion of subsidies or contributions determined by each municipality.

The rates by stratum and sector can be consulted through the following link: *https://www.grupo-epm.com/site/aguasregionales/clientes-y-usuarios/tarifas*

Aguas Regionales Sewerage - Full Rate (Stratum 4)

Fixed charge	2021	2022	2023
Occidente	3,604	4,102	**4,442**
Urabá	3,463	3,941	**4,268**

Variable charge (COP/m³) - West	2021	2022	2023
Santa Fé de Antioquia	1,650	1,675	**1,838**
San Jerónimo	3,576	2,346	**2,525**
Sopetrán	2,335	2,723	**2,935**
Olaya	1,910	1,908	**2,241**

Variable Charge (COP/m³) - Urabá	2021	2022	2023
Apartadó	2,367	2,678	**2,904**
Carepa	2,170	2,462	**2,677**
Chigorodó	2,136	2,072	**2,237**
Mutatá	2,257	2,499	**2,713**
Turbo	1,879	1,931	**2,040**

Source: *Dirección Comercial Agua y Saneamiento*

Note: Values as of December of each year in current prices, showing the evolution of the charges collected from users. The variations correspond mainly to the indexation of the value of the rates with respect to the CPI, thus allowing the recovery of costs and the provision of a quality service. Additionally, some APS (Service Provision Areas) presented variation in the variable charge due to the application of the average costs of environmental rates corresponding to 2022 in accordance with the provisions of Resolution CRA 943 of 2021 that were approved by Resolution of Substitute Manager N°20230910001251-14 of July 14, 2023 and to the update of the average operating costs, as a consequence of the variation in the particular unit operating costs approved by Resolution of Substitute Manager N°20230910001613-19 of September 19, 2023.

These values correspond to the full rate, i.e. without the inclusion of subsidies or contributions determined by each municipality. The rates by stratum and sector can be consulted at *https://www.grupo-epm.com/site/aguasregionales/clientes-y-usuarios/tarifas*

Aguas de Malambo

Aguas de Malambo Aqueduct - Full Rate (Stratum 4)

Concept	2021	2022	2023
Fixed charge (COP/User)	6,404	7,288	**8,079**
Variable charge (COP/m³)	1,725	2,089	**2,557**

Source: *Commercial Water and Sanitation Division*

Note: Values as of December of each year in current prices, showing the evolution of the charges collected from users. The variations correspond mainly to the indexation of the value of the rates with respect to the CPI, thus allowing the recovery of costs and the provision of a quality service. Additionally, there was a variation in the variable charge due to the update of the CMI (average investment cost), as a consequence of the update of the POIR (Regulated Works and Investment Plan) in application of Article 2.1.2.1.4.3.10 of Resolution CRA 943 of 2021, approved by Board of Directors Decree N°005 of June 01, 2023 and to the update of the maximum reference costs as a consequence of the modification of the projection of subscribers and consumptions approved by the CRA by Resolution CRA 980 of 2023, according to Board of Directors Decree N°008 of July 28, 2023.

These values correspond to the full rate , i.e. without the inclusion of subsidies or contributions determined by each municipality.

The rates by stratum and sector can be consulted at *https://www.grupo-epm.com/site/aguasdemalambo/nuestra-gestion/clientes-y-usuarios*

Aguas de Malambo Sewerage - Full rate (Stratum 4)

Concepto	2021	2022	2023
Fixed charge (COP/User)	3,456	3,933	**4,303**
Variable charge (COP/m³)	886	990	**1,551**

Source: *Dirección Comercial Agua y Saneamiento*

Note: Values as of December of each year in current prices, showing the evolution of the charges collected from users. The variations correspond mainly to the indexation of the value of the rates with respect to the CPI, thus allowing the recovery of costs and the provision of a quality service. Additionally, there was a variation in the variable charge due to the incorporation of the new operating costs associated with the La Milagrosa Wastewater Treatment Plant, which were approved by General Manager's Resolution No. 2023-00100-00015 of May 9, 2023. The CMI (average investment cost) was also updated, as a result of the update of the POIR (Regulated Works and Investment Plan) in application of Article 2.1.2.2.1.4.3.10 of Resolution CRA 943 of 2021, approved by Board of Directors Decree N°005 of June 01, 2023. Finally, the maximum reference costs were updated as a consequence of the modification of the projection of subscribers and consumption approved by the CRA through Resolution CRA 980 of 2023, according to Board of Directors Decree N°008 of July 28, 2023.

These values correspond to the full rate , i.e. without the inclusion of subsidies or contributions determined by each municipality.

The rates by stratum and sector can be consulted at: *https://www.grupo-epm.com/site/aguasdemalambo/nuestra-gestion/clientesy-usuarios*

Aguas del Oriente

Aguas del Oriente - El Retiro - Aqueduct - Full rate (Stratum 4)

Concept	2021	2022	2023
Fixed charge (COP/User)	8,998	10,017	**11,086**
Variable charge (COP/m³)	2,953	3,304	**3,751**

Source: *Dirección Comercial Agua y Saneamiento*

Note: Values as of December of each year in current prices, showing the evolution of the charges collected from users. The variations correspond to the indexation of the value of the rates with respect to the CPI, thus allowing the recovery of costs and the provision of a quality service. Additionally, there was a variation in the variable charge due to the update of the CMO (average operating cost) of the fifth rate year and the average costs of environmental rates are updated in accordance with the provisions of the Compilatory Resolution CRA 943 of 2021, approved by Resolution of the General Manager No. 20230710000257 of July 24, 2023.

These values correspond to the full rate, i.e. without the inclusion of subsidies or contributions determined by each municipality. The rates by stratum and sector can be consulted at *https://www.grupo-epm.com/site/aguasdeloriente/tarifas*

Aguas del Oriente - El Retiro - Sewerage - Full rate (Stratum 4)

Concept	2021	2022	2023
Fixed charge (COP/User)	5,112	5,691	**6,298**
Variable charge (COP/m³)	1,261	3,652	**4,040**

Source: *Dirección Comercial Agua y Saneamiento*

Note: Values as of December of each year in current prices, showing the evolution of the charges collected from users. The variations correspond to the indexation of the value of the rates with respect to the CPI, thus allowing the recovery of costs and the provision of a quality service. Additionally, in the variable charge, the average operating cost for the fifth rate year and the CMT (average costs of environmental rates) were updated in accordance with the provisions of the Compilatory Resolution CRA 943 of 2021, approved by Resolution of the General Manager N°20230710000257 of July 24, 2023.

These values correspond to the full rate, i.e. without the inclusion of subsidies or contributions determined by each municipality. The rates by stratum and sector can be consulted at *https://www.grupo-epm.com/site/aguasdeloriente/tarifas*

Aguas de Antofagasta

Average Rates - Regulated Market	2021	2022	2023
Drinking water Normal ($ chilean/m³)	1,591	1,783	**1,808**
Drinking water overconsumption ($ chilean/m³)	4,734	5,305	**5,381**
Sewerage ($$ chilean/m³)	352	401	**408**
Treatment ($ chilean/m³)	180	206	**207**
Cargos fijos ($ chilean/Usuario)	1,187	1,305	**1,352**

Source: *Commercial Operations Department Aguas de Antofagasta*

Note: Values in current prices and averaged as of December of each year; based on a weighted value depending on the amount billed in each location, which shows the evolution of consolidated charges by subsidiary.

For the regulated market, the value delivered is in Chilean pesos (including tax) and corresponds to the weighted average value per m³ of each item.

- For residential and non-residential customers, the same rate applies.
- The fixed charge is a single value per location and has no breakdown.

Aguas de Antofagasta

Average Rates - Regulated Market	2021	2022	2023
Fixed charges (Ch$/User)	1,187	1,305	**1,352**
Normal drinking water ($chilean/m³)	1,768	1,981	**2,009**
Drinking water overconsumption ($ chilean/m³)	5,282	5,917	**6,002**
Sewerage ($ chilean/m³)	348	397	**404**
Sewerage ($ chilean/m³)	108	124	**119**

Source: *Commercial Operation Department Aguas de Antofagasta*

Note: Values as of December of each year in current prices, showing the evolution of the charges collected from users.

For the Regulated Market, the value delivered is in Chilean pesos (including tax) and corresponds to the value per m³ of each item.

- For residential and non-residential customers, the same rate applies.
- The fixed charge is the same value for all locations covered by Aguas de Antofagasta and has no breakdown.

Unregulated Market	2021	2022	2023
Codelco	0.11	0.11	**0.11**
Spence	0.09	0.09	**0.09**
Mantos Blancos	0.06	0.06	**0.1**

Source: *Commercial Operations Department Aguas de Antofagasta*

Note: Values as of December of each year in current prices, showing the evolution of the charges collected from users.

- Under the new contractual conditions, Codelco assumes a higher flow (up to 550 l/s), and as of October 2020 lowers the rate to UF (Unidades de Fomento) 0.115 m^3 . As of January 2023, the rate will be UF 0.11 m^3.
- Mantos Blancos as of July 1, 2023, changes its rate to UF 0.1 m^3
- UF corresponds to Unidades de Fomento, which is used in Chile as a unit of price and is adjusted daily.

Cleaning fees

The provision of the domiciliary public sanitation service is regulated in Colombia, for which reason Grupo EPM makes permanent efforts before the National Government and the decentralized regulatory, surveillance and control entities, to contribute to the well-being of the population, through market conditions that allow providing the service, complying with regulatory standards of quality, continuity and coverage, at competitive rates, which also guarantee the financial sufficiency of the Organization.

Management in 2023

The regulatory management of the sanitation service in 2023 was oriented to the presentation and attention to the requirements of the particular rate modification required by Emvarias for the cost of final disposal, which was worked on during the last years, and was presented in January 2023 before the CRA; management of the draft regulations issued by the Ministries of Housing, City and Territory, and Environment and Sustainable Development; Congress; CRA and the Superintendence of Household Public Utilities.

- In order to guarantee the financial sufficiency criterion enshrined in Article 87 of Law 142 of 1994 in the companies of the Grupo EPM and that the economic reference costs recognize the current operational costs on January 16, 2023, a request for modification of a particular rate was filed with the CRA to update the cost of final disposal of the sanitation service provided by Emvarias at the La Pradera sanitary landfill, due to the construction of a new disposal tank called La Piñuela. After attending an initial request for information, a field visit and a writ of evidence decreed by the CRA, on October 9 by means of Resolution CRA 987 of 2023, the Commission partially approved the modification request, agreeing to recognize 74.39% of the requested rate . An appeal for reconsideration was filed against the unrecognized investment costs and on December 12, 2023, Resolution CRA 990 was obtained, in which the Commission recognized an additional 0.87%, and a partial modification of the rate was obtained for a total of 75.26% of the requested value.
- The Ministry of Housing, City and Territory, held for citizen participation the draft Resolution establishing the provisions for the integrated management of organic solid waste. The Ministry of Environment and Sustainable Development presented the project that establishes measures aimed at the gradual reduction of the production and consumption of certain single-use plastic products.
- Comments were submitted on the following bills:
  - PL 259S of 2022 and PL 085 of 2023, which establish the framework for the integrated management of solid waste in order to boost circular economy in Colombia. PL 338C and 274S of 2023, issuing the National Development Plan 2022-2026 "Colombia World Power of Life".

- PL 021 of 2023, which creates the public policy "Colombia consumes responsibly" to prevent the loss and waste of durable goods and establishes other provisions.
- PL 058 of 2023, which creates and regulates the regime of the solid waste recovery market, encourages waste recovery as part of the promotion of the circular economy, and other provisions.
- PL 201-2023C: creating and regulating the regime of the solid waste recovery market, encouraging the recovery of waste within the promotion of the circular economy and promoting the circular economy and other provisions.

- The CRA participated in the draft resolution by which some paragraphs are added to article 5.3.2.2.2.8.3. of Resolution CRA 943 of 2021 related to the waste management service productivity factor for the periods invoiced following March of 2023. The SSPD participated in the draft resolution that provides guidelines to the providers of residential public utilities in user protection.

Rates per user of the ordinary sanitation service in Medellín

Concepto	2021	2022	2023
Stratum 1	9,095	9,511	**10,373**
Stratum 2	12,551	13,119	**14,285**
Stratum 3	18,125	18,940	**20,604**
Stratum 4	22,334	23,325	**25,322**
Stratum 5	45,430	47,396	**51,247**
Stratum 6	54,773	57,078	**61,457**
Small commercial generators	55,328	57,512	**61,340**
Variable charge m³ large generators	59,638	65,100	**70,440**

Source: *Emvarias*

Note: The values in the table correspond to the rate settled in December, which contains the consumption of November of each period. Its variation was due to the service activities carried out, the growth of users and the application of the rate update factors, in accordance with the provisions of Resolution 720 of 2015, with indexes such as: the CPI, the

SMMLV, fuel Oil and Diesel Oil ACPM (ICFO), and the IOAmb (Environmental Works Index), thus allowing cost recovery and the provision of a quality service. It is worth mentioning that for 2023, the productivity factor was applied as established in Resolution 985 of 2023.

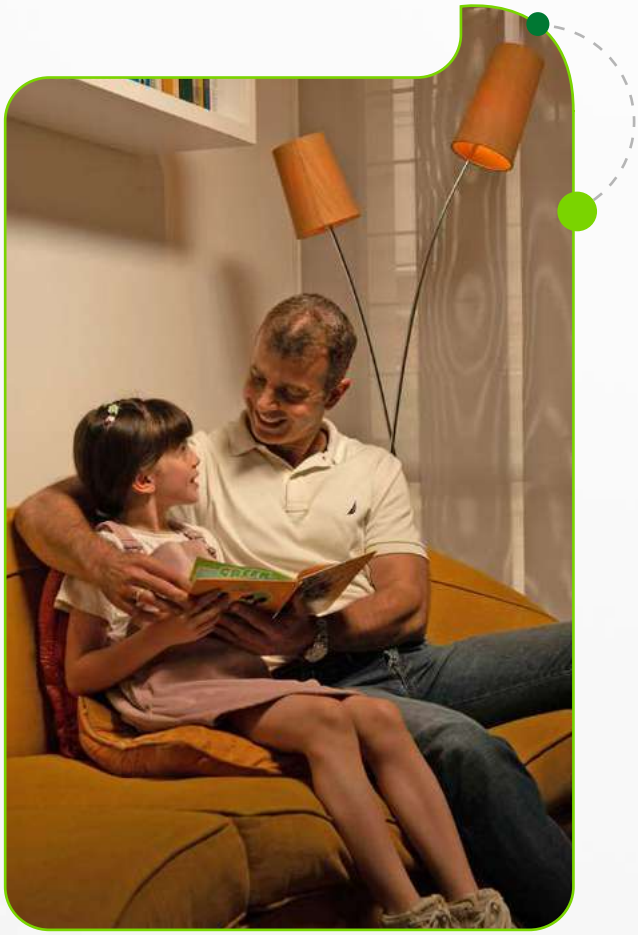
The variable charge for a large generator depends on the capacity (m3) of each one of them; therefore, for the purposes of the report, a capacity of 1,278 m3 is presented, from which a variable charge of $70,439 is obtained.

During the reporting period, retroactive charges were applied to the use component, therefore, the rate established in the invoice shows variations.

Consult the published rates here: *https://www.emvarias.com.co/emvarias/serviciosytarifa*

Electricity rates

By their nature, residential public utilities are regulated in prices, which means that the rates that EPM charges its users are not freely chosen, but are subject to the provisions determined by the Regulator and supported by Law; in this case the CREG (Energy and Gas Regulatory Commission).



The CREG issues rules that establish the methodologies for the calculation of rates and these are based on efficiency criteria so that efficient costs are transferred to the consumer. In all the regions where it provides its services, Grupo EPM seeks that the rates are competitive so that they allow cost recovery and sustainability of the companies.

The costs covered by the rate are the assets required to provide the service through the production chain (generation, transmission, distribution, commercialization), as well as the costs of managing, operating and maintaining them, in order to deliver electric energy from the energy sources to the end user's home; additionally, the rate also covers the costs associated with the customer service support process.

In 2023, due to new rate provisions, the Regulator issued resolutions modifying the methodology of Resolution CREG 012/20 and a new one was initiated that aims to improve the liquidity of all companies with outstanding balances that are not recovered, incorporating a new component in the marketing cost called COT (cost of the rate option).

In 2023, in compliance with the regulations in force for the application of the rate option, and entering into new contracting mechanisms (financial derivatives) that moderate the impact of the stock exchange price: Derivex mechanism.

Under the new CREG regulations, the Organization accepted a mutual agreement for the collection of the remaining balance with a new component in the rate that guarantees its recovery in a fixed period, which for EPM is 36 months. The collection began with a balance of 730.8 million pesos as of December 2023.

In the hedging with bilateral contracts, the Company continued minimizing the exposure to stock exchange prices with a hedging of 83% on average per month (the Group's hedging is 77%). EPM maintains a competitive rate in its commercialization market, where its unit cost ended within the 5 lowest in Colombia and began its incursion into other markets for the regulated market..

Evolution of energy rates - EPM (COP / kWh)

Concepto		2021	2022	2023
Residential	Stratum 1	246	304	**356**
	Stratum 2	308	380	**445**
	Stratum 3	524	643	**755**
	Stratum 4	617	756	**888**
	Stratum 5	740	907	**1,066**
	Stratum 6			
Commercial				
Industrial				

Source: *Transmission and Distribution Vice-Presidency / Energy Commercialization Transactions Unit.*

Note: The values correspond to the December rate. EPM property. Range 0 - CS.
https://cu.epm.com.co/clientesyusuarios/energia/tarifas-energia

Evolución de las tarifas de energía - EDEQ (COP / kWh)

Concept		2021	2022	2023
Residential	Stratum 1	253	298	**376**
	Stratum 2	316	372	**470**
	Stratum 3	538	633	**798**
	Stratum 4	633	744	**939.2**
	Stratum 5	759	893	**1,127**
	Stratum 6			
Commercial				
Industrial				

Source: *Transmission and Distribution Vice-Presidency / Energy Commercialization Transactions Unit.*

Note: The values correspond to the December rate. Ownership 100 % EDEQ. Range 0 - CS. CS: Subsistence Consumption (Subsidizable Consumption Range)

https://www.edeq.com.co/clientes-y-usuarios/tarifas/tarifas-de-energia#2023-940

Evolution of energy rates - ESSA (COP / kWh)

Concept		2021	2022	2023
Residential	Stratum 1	252	320	**378**
	Stratum 2	315	400	**473**
	Stratum 3	535	673	**804**
	Stratum 4	629	791	**946**
	Stratum 5	756	950	**1,135**
	Stratum 6			
Commercial				
Industrial				

Source: *Transmission and Distribution Vice-Presidency / Energy Commercialization Transactions Unit.*

Note: The values correspond to the December rate. Property assets ESSA.

https://www.essa.com.co/site/mi-factura/formula-tarifaria-y-tarifas/consultar-tarifas#2023-1513

Evolution of energy rates - CENS (COP / kWh)

Concept		2021	2022	2023
Residential	Stratum 1	255	311	**382**
	Stratum 2	319	389	**477**
	Stratum 3	543	659	**811**
	Stratum 4	638	775	**955**
	Stratum 5	766	930	**1,145**
	Stratum 6			
Commercial				
Industrial				

Source: *Transmission and Distribution Vice-Presidency / Energy Commercialization Transactions Unit.*

Note: The values correspond to the December CENS Active Property rate.

https://www.cens.com.co/clientes-y-usuarios/tarifas-de-energia

Evolution of energy rates - CHEC (COP / kWh)

Concepto		2021	2022	2023
Residential	Stratum 1	260	286	**393**
	Stratum 2	325	358	**491**
	Stratum 3	553	606	**834**
	Stratum 4	650	712	**981**
	Stratum 5	780	855	**1,178**
	Stratum 6			
Commercial				
Industrial				

Source: *Transmission and Distribution Vice-Presidency / Energy Commercialization Transactions Unit.*

Note: The values correspond to the December rate. CHEC Property. Range 0 - CS

https://www.chec.com.co/Home/Transparencia/Planeaci%C3%B3n-presupuestos-e-informes/Publicaciones-de-Tarifas

Evolution of energy rates - Afinia (COP / kWh)

Concept		2021	2022	2023
Residential	Stratum 1	236	323	**426**
	Stratum 2	295	404	**533**
	Stratum 3	501	678	**906**
	Stratum 4	590	798	**1,066**
	Stratum 5	708	958	**1,279**
	Stratum 6			
Commercial				
Industrial				

Source: *Transmission and Distribution Vice-Presidency / Energy Commercialization Transactions Unit.*

Note: The values correspond to the December rate . Assets owned by the RO (Network Operator).
https://afinia.com.co/inicio/tarifas-y-subsidios

Evolution of energy rates - ENSA (USD / kWh)

Concept	2021	2022	2023
Residential			
BTS 1 Rate (Cons: 0-300 KWh)			
Fixed Charge (1st 10 KWh)	2.23	2.28	
Energy Charge (KWh)	0.14770	0.16812	
BTS 2 Rate (Cons: 301-750 KWh)			
Fixed Charge (1st 10 KWh)	2.23	2.28	
Energy Charge (KWh)	0.16333	0.19181	

Evolution of energy rates - ENSA (USD / kWh)

Concept	2021	2022	2023
BTS 3 Rate (Cons: 751-More KWh)			
Fixed Charge (1st 10 KWh)	2.23	2.28	
Energy Charge (KWh)	0.17870	0.21505	
Unified BTS Rate			
Fixed Charge (1st 10 KWh)			2.56
Energy Charge (11-300 KWh)			0.16682
Energy Charge (301-750 KWh)			0.21213
Energy Charge (751-plus KWh)			0.24678
Comertial			
BTD Rate			
Fixed Charge	4.79	4.90	5.48
Demand Charge (KW)	15.16	15.12	16.58
Energy Charge (Cons: 0-10 MWh)	0.13575	0.16009	0.15194
Energy Charge (Cons: 10-30 MWh)	0.13838	0.16407	0.15536
Energy Charge (Cons: 30-50 MWh)	0.14115	0.16829	0.15897
Energy Charge (Cons: 50-plus MWh)	0.14406	0.17269	0.16275
Industrial			
MTD Rate			
Fixed Charge	8.60	8.79	9.85
Demand Charge (KW)	12.80	12.70	13.66
Energy Charge (KWh)	0.11751	0.14372	0.13415

Note: The values correspond to the rate in December.

Rate 2023 given the change of structure in BTS (from three rates according to consumption level, to a unified rate according to consumption level).

https://www.ensa.com.pa/sites/default/files/pliego_tarifario_ensa_2do_sem_2023.pdf

Evolution of energy rates - Delsur (USD / kWh)

Concept	2021	2022	2023*
Residential	0.204	0.207	0.213
Commercial	0.182	0.206	0.184
Industrial	0.147	0.155	0.15

Source: *Transmission and Distribution Vice-Presidency / Energy Commercialization Transactions Unit.*

Note: The values correspond to the rate in December.

* Average prices of the billed charges of the rates chedule to end users based on December 2023 billing information.

*These are preliminary data. The definitive data will be available until January 24, 2024, when it will be officially delivered to SIGET.

*The rate schedule charges are: energy charge, commercialization charge and distribution charge (not including pole rate).

Evolution of the rates of - EPM Guatemala Quetzales/Kwh

Concept	2021	2022	2023
Baja tensión con Demanda Autoproductores - BTDA			
Consumer Charge (Q/user-month)	146.491001	160.466512	149.047015
Unit Energy Charge (Q/kWh)	0.972408	1.089947	1.104443
Unit Peak Power Charge (Q/kW-month)	40.934071	40.934298	38.120004
Unit Charge per Contracted Power (Q/kW-month)	39.244669	40.733173	50.800724
Medium voltage with Peak Demand - MTDp			
Consumer Charge (Q/user-month)	846.94323	900.556202	Deleted
Unit Energy Charge (Q/kWh)	0.919273	1.03251	Deleted
Unit Maximum Power Charge (Q/kW-month)	35.477509	35.477706	Deleted
Unit Charge per Contracted Power (Q/kW-month)	20.057322	20.999761	Deleted
Medium Voltage with Off-Peak Demand - MTDfp			
Consumer Charge (Q/user-month)	846.94323	900.556202	Deleted
Unit Energy Charge (Q/kWh)	0.919389	1.032804	Deleted
Unit Maximum Power Charge (Q/kW-month)	26.180729	26.180874	Deleted
Unit Charge per Contracted Power (Q/kW-month)	13.316473	13.942178	Deleted

Evolution of the rates of - EPM Guatemala Quetzales/Kwh

Concept	2021	2022	2023
Medium Voltage with Autoproducer Demand - MTDA			
Consumer Charge (Q/user-month)	952.811134	1013.125728	770.713992
Unit Energy Charge (Q/kWh)	0.922483	1.037227	1.044823
Unit Peak Power Charge (Q/kW-month)	48.245225	48.245493	43.074463
Unit Charge per Contracted Power (Q/kW-month)	22.737568	23.805944	8.533143
Low Hourly Voltage on Demand - BTHD			
Consumer Charge (Q/user-month)	138.120086	151.296997	120.997754
Unit Peak Energy Charge (Q/kWh)	0.990702	1.118851	1.11893
Intermediate Energy Unit Charge (Q/kWh)	0.971638	1.090253	1.110634
Unitary Charge for Energy in Valley (Q/kWh))	0.960926	1.069408	1.084626
Unitary Charge for Additional Valley Energy (Q/kWh)	0.786922	1.00197	1.008294
Unit charge for peak power (Q/kW-month)	38.933176	38.933392	33.072437
Unit charge per contracted power (Q/kW-month)	36.948525	38.34994	38.298313
Simple Low Voltage Hourly - BTSH			
Charge per consumer (Q/user-month)	11.510007	12.608083	10.985335
Unit charge for peak energy (Q/kWh)	1.461529	1.599139	1.621531
Intermediate energy unit charge (Q/kWh)	1.353375	1.481451	1.483654
Unit charge for off-peak energy (Q/kWh))	1.210337	1.328279	1.34328
Unit charge for additional off-peak energy (Q/kWh)	1.036333	1.260841	1.266948
Hourly Medium Voltage with Demand - MTHD			
Charge per consumer (Q/user-month)	931.637554	990.611823	878.228764
Utility charge for peak energy (Q/kWh)	0.936888	1.060066	1.056565
Intermediate energy unit charge (Q/kWh)	0.91884	1.032993	1.048731
Unit charge for off-peak energy (Q/kWh))	0.908698	1.013259	1.024171
Unit charge for additional off-peak energy (Q/kWh)	0.743972	0.949416	0.952088
Unit charge for peak power (Q/kW-month)	38.477128	38.477342	33.195308
Unit charge per contracted power (Q/kW-month)	14.030186	14.689426	15.576695

Evolution of the rates of - EPM Guatemala Quetzales/Kwh

Concept	2021	2022	2023
Low Voltage Carrier Functional Toll - PBT			
Unit charge for peak energy losses (Q/kWh)	0.070388	0.079696	0.074312
Charge for intermediate energy losses (Q/kWh)	0.069032	0.077661	0.073762
Unit charge for off-peak energy losses (Q/kWh)	0.06827	0.076178	0.072036
Unit charge for maximum power (Q/kW)	70.491388	73.056306	105.828052
Tolls according to medium-voltage carrier - PMT			
Unit charge for peak energy losses (Q/kWh)	0.017644	0.019977	0.011947
Intermediate energy loss unit charge (Q/kWh)	0.017304	0.019467	0.011859
Unit charge for off-peak energy losses (Q/kWh)	0.017112	0.019095	0.011581
Unit charge for maximum power (Q/kW)	24.688973	25.812426	37.489222

Note: The values correspond to the December rate of each year and do not include the value added tax (VAT) or the municipal public lighting tax.

The BTDp, BTDFp, MTDp and MTDfp rates are no longer in effect as of December 2023 due to the implementation of hourly rates.

https://eegsa.com/calculadora-de-facturas/

Gas rates

CREG regulates the prices of natural gas residential public service through pipeline networks. Under the definition of specific remuneration methodologies for each activity in the natural gas value chain (production, transportation, distribution, and commercialization), this regulator seeks to guarantee the transfer of efficient investment, administration, operation and maintenance costs to users.

It is understood that all rates have an integral character in that they imply a coverage and a level of quality of service. EPM seeks that the rates be competitive and allow the recovery of costs and the sustainability of the Company.

The marketing cost, which is now charged through a fixed fee, remunerates the entire user support process.

Management in 2023

Evolution of EPM gas rates

Relevant Market	Municipality / City	2021		2022		2023		Variation % Cuv 2022 vs 2023
		Fixed charge	CUv $/m³	Fixed $/ invoice	CUv $/m³	Fixed $/ invoiced	CUv $/m³	
Antioquia	Medellín, Barbosa, Girardota, Copacabana, Bello, Envigado, Itagüí, Sabaneta, La Estrella, Caldas.	3,241.93	1,985.19	3,559.06	2,416.46	3,875.66	2,408.97	-0.31 %
La Ceja	La Ceja	3,137.25		3,444.14		3,750.51		
La Unión	La Unión	2,443.49		2,682.52		2,921.14		
El Retiro	El Retiro	2,443.49		2,682.52		2,921.14		
Sonsón	Sonsón	2,536.97		2,785.14		3,032.88		

Evolution of EPM gas rates

Relevant Market	Municipality / City	2021		2022		2023		Variation % Cuv 2022 vs 2023
		Fixed charge	CUv $/m³	Fixed $/ invoice	CUv $/m³	Fixed $/ invoiced	CUv $/m³	
Apartadó	Apartadó	2,492.55	1,985.19	2,736.38	2,416.46	2,979.79	2,408.97	-0.31 %
Turbo y Chigorodó	Carepa, Chigorodó, Necoclí, Arboletes y Turbo	2,895.41		3,178.64		3,461.39		
El Bagre	San Juan de Urabá	2,140.19		2,349.55		2,558.55		
Maceo	Yolombó, Maceo, Caracolí, Amalfi, Santo Domingo, San Vicente	2,588.25		2,841.44		3,094.19		
Frontino	Frontino, Cañasgordas, Fredonia, Santa Bárbara, Jardín y Jericó	1,710.94		1,878.31		2,045.39		
Ituango	Ituango, Liborina, Olaya, Sabanalarga, San Andrés de Cuerquia y Valdivia	3,695.19		4,056.65		4,417.51		
Abriaquí	Concepción, Dabeiba, Remedios, San José de la Montaña, San Roque (urbano), Toledo, Vegachí, Yalí	2,680.10		2,942.27		3,204.00		
Abejorral	Abejorral, Angelópolis, Belmira, Betania, Betulia, Caramanta, Carolina del Príncipe, Cocorná, Concordia, Gómez Plata, Granada, Guadalupe, Hispania, Montebello, Mutatá, Pueblorrico, Puerto Nare, Salgar, San Carlos, San Luis, San Pedro de Urabá, San Rafael, Támesis, Tarso, Titiribí, Urrao, Valparaíso y Venecia	2,610.99		2,866.40		3,121.38		
Southeastern Antioquia	Guarne, Rionegro, Marinilla, El Santuario	2,368.72	1,644.83	2,603.19	1,980.88	2,834.76	2,006.91	1.31 %
San Roque	San Roque (San José del Nus)	1,956.33	1,577.25	2,160.40	1,938.62	2,338.75	1,924.22	-0.74 %

Evolution of EPM gas rates

Relevant Market	Municipality / City	2021		2022		2023		Variation % Cuv 2022 vs 2023
		Fixed charge	CUv $/m³	Fixed $/ invoice	CUv $/m³	Fixed $/ invoiced	CUv $/m³	
Puerto Berrío	Puerto Berrío	1,526.88	1,553.10	1,686.15	1,912.06	1,825.35	1,988.18	3.98 %
Guatapé y El Peñol	El Peñol, Guatapé	2,427.93	1,557.02	2,681.20	1,920.38	2,902.54	1,924.22	0.20 %
Cisneros	Cisneros	1,525.26	1,511.19	1,686.15	1,845.11	1,825.35	1,924.22	4.29 %
Amagá	Amagá	1,756.48	1,539.97	1,939.71	1,905.02	2,099.84	1,924.22	1.01 %
Ciudad Bolívar	Ciudad Bolívar	2,983.94	1,575.62	3,295.21	1,937.16	3,567.24	1,924.22	-0.67 %
Yarumal	Yarumal, San Peedro de los Milagros, Santa Rosa de Osos, Entrerríos, Don Matías	1,505.22	1,553.86	1,662.23	1,917.53	1,799.45	2,307.20	20.32 %
Santa Fe de Antioquía	Santa Fe de Antioquia, San Jerónimo, Sopetrán	2,588.24	1,576.13	2,858.22	1,937.61	3,094.18	1,924.22	-0.69 %

Source: *Gas Transactions Unit*

Note: CREG Resolutions 502_015 of 2022 and 502_008 of 2023 defined the integrated market and eight (8) submarkets that correspond to the municipalities to which investment resources from the Nation were approved. The regulatory framework defined in CREG Resolutions 137 and 202 of 2013 is applied. For the municipalities of the Southeast Antioquia market (Guarne, Marinilla and Rionegro) the previous regulatory framework (CREG 011/2003) continued to be applied. The rates correspond to those applied in December of each year. Changes in rates for the year 2023 were due to variations in the TRM -16%, the accumulated increase in the PPI 0.72% - CPI 10%, updating of supply contracts at the beginning of the year and transportation contracts due to current regulation. Rates by stratum and sector can be consulted at: *https://www.epm.com.co/clientesyusuarios/gas/tarifas-gas.html*

Subsidies and contributions - Natural Gas Service (Amounts in millions of pesos)

Concept	2021	2022	2023
Subsidio	87,015	102,653	111,632
Contribución	20,513	25,639	28,887
Déficit	- 66,502	- 77,014	- 82,745

Source: *Gas Transactions Unit*

The increase in the deficit in 2023 was generated by the increase in rates due to variations in macroeconomic factors (TRM-IPP-IPC). Since 2010 we are in deficit, there is no surplus.

Contents of GRI standards and corporate indicators

EPM-13 ***Prices by type of service***

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM (Public Companies of Medellín - EPM)*
- *EPM Aguas Regionales*
- *EPM Aguas Nacionales*
- *Aguas del Oriente*
- *Aguas de Malambo*
- *Empresas Varias de Medellín - Emvarias*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Electrificadora de Santander - ESSA*
- *Empresa de Energía del Quindío - EDEQ*
- *Centrales Eléctricas del Norte de Santander - CENS*
- *Afinia*
- *Aguas de Antofagasta - Adasa*
- *Elektra Noreste - ENSA*
- *Distribuidora de Electricidad del Sur - Delsur*
- *EPM Guatemala*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Quindío*
- *Colombia – Risaralda*
- *Colombia – Santander*
- *Colombia - Norte de Santander*
- *Colombia - Malambo, Atlántico*
- *Colombia - The Caribbean*

- *Chile*
- *El Salvador*
- *Guatemala*
- *Panamá*

Business

- *Water*
- *Sanitation*
- *Waste*
- *Electricity*
- *Gas*

Back to content

Sustainability Report

2023

Technology and innovation

Grupo·epm

Table of contents

Material issues

p.

Technology and innovation 956

- Energy Transition 972
- Digital Transformation 977
- Circular economy 981
- Profitability of operations 985
- Innovation management 989

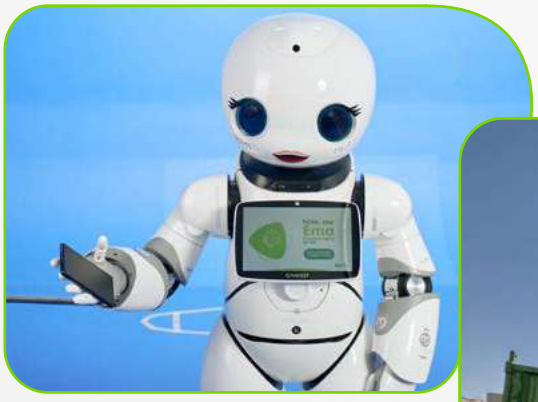
Technology and innovation

It consists of adapting the infrastructure, processes and organizational culture to new technologies and innovation, including the development of actions to close the gaps that technology generates in the stakeholders due to their socioeconomic and educational conditions, geographic location, among others, and increasing access to information and knowledge.

Approaches

Training and capacity building in new technologies: generation and management of knowledge in new technologies and innovation, generating an impact on the organizational culture of the EPM Group, its collaborators and contractors, in order to adapt processes to provide innovative solutions.

Adaptation to new technologies: implementation of new technologies and innovation in relation to the processes, services and products offered for better positioning in the markets, greater responsiveness, and better quality of life.and the contribution to the closing of gaps.



Main achievements 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Profitability of operations	Implement the first greenhouse gas (SF6)-free, encapsulated power substation in Latin America.	EPM	Initiated the contract for the supply and implementation of the mitigation and change management plan.	Partial
	Implement wastewater reuse for non-potable uses.		Initiated pilot project.	Partial
	Incorporate battery energy storage technology (BESS) in EPM.		The training program, evaluation of the Delsur subsidiary project and technical-economic analysis of the mobile storage solution were executed.	Partial
	Optimize the process of washing drinking water storage tanks by means of robotics.		A pilot project was implemented.	Total
	Optimize the cleaning process of catchment systems of small hydroelectric power plants and water supply.		A pilot project was implemented.	Total
	Implement Distributed Facts technology in the energy distribution system in Latin America.		Closing action plan change management.	Total
	Implement digital substations in the power distribution system.		Change management action plan activities were implemented, three digital substations were designed and design guidelines were built.	Total
	Improve the operation of the PRV (Pressure Regulating Valve) control line by means of improved filters.		Initiated pilot project.	Partial
	Pre-locate water leaks in sewage networks through satellite images.		The pilot project was implemented.	Total

Main achievements 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Profitability of operations	Implement vortex valve technology to improve the performance of spillways in the sewer system.	EPM	Initiated pilot project.	Partial
	Evaluate non-discharge technologies in decentralized sewage systems.		Initiated pilot project.	Partial
Digital transformation	Implement the provision of smart city services as a strategic ally of Medellin and other territories in Colombia.		▶ Five minimum viable products (MVP) of new digital businesses were developed. ▶ Developed and structured a comprehensive building automation solution focused on hotels and educational centers with funding from EPM's Somos program. ▶ Four use cases, applicable to smart territories, were identified. ▶ Study of data monetization and information enterprise initiatives and use cases, outreach with experts, suppliers and internal areas, from the Trébol Program Management and data science project.	Partial
	EPM at your door: design and implement the solution for B2B and B2C business to grow in customers and markets.		▶ The base portfolio was expanded with the development of offers for repairing damage to internal water and energy networks and requesting connection to the gas service. ▶ Automatic visit scheduling was achieved through the artificial intelligence platform EMA. ▶ Implemented a mobility tool for data capture in the field, costs and multi-channel advancement (contact Web, EMA WhatsApp, interactive voice response (IVR) at EPM.	Total
	Digitally generate pre-sale codes for Gas.		A web application was developed to speed up the sales force's service time to Gas customers.	Total

Main achievements 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Digital transformation	Justify with the business case and risk analysis the relevance of the On-Site Billing project for its multiple benefits.	EPM	The project was approved for implementation in 2024.	Partial
	Acquire and implement in production the DXP Digital Experience Platform, with the following modules: content management system, advanced analytics, e-commerce and customer data platform.		▶ The EPM portal was migrated. ▶ Defined implementation strategy for the client's content platform and prioritization of use cases and data profiling.	Partial
	Finalize the implementation and production start-up of the SuperApp mobile platform with the technological migration of 12 micro-applications.		Test environments were deployed for all components (SuperApp with the 12 micro applications in the EPM Estamos Ahí app) and the think tank was started to define the scope changes for the production release.	Partial
	Signing of the contract to implement a data warehouse and a Group industry data model that allows the analysis and management of commercial information.		▶ Advances in the contracting process were presented: sponsoring group, pre-committee and contracting committee. ▶ An internal audit review of the bidder evaluation process was conducted ▶ Negotiations were prepared: meetings with the EPM negotiating team to align the aspects to be negotiated. ▶ The negotiation stage of the winery contract, data model and use cases began.	Partial
	Train new customized voice version of EMA. Prototype of EMA answering paperwork queries with OpenAI, ChatGPT, EMA WhatsApp, chatbot, VoiceBot for operational crews and chatbot for operational instructions (T&D).		All challenges were met.	Total

Main achievements 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Digital transformation	Implement the digital platform that enables energy management in EPM's client companies, in order to monitor and manage energy consumption in the production of their products and/or services.	EPM	Platform in production and in pilot with customers with these functionalities: Consumption capture, presentation of consumption and comparative graphs, alarm and alert management and basic analytics.	Total
	Improve the commercial PQR classification system of the web channel, to increase the reliability in the prediction of the category assigned to the PQR using generative artificial intelligence.		Production solution that optimizes the PQR classification process from 36% to 90% reliability.	Total
	To have in production environment a pilot consisting of a digital platform that enables P2P business model, so that customers and suppliers of energy in Colombia, can make transactions of energy from renewable generation sources.		To have the following functionalities in test environment with users: seller registration, buyer registration and transaction closing.	Partial
	To have in production environment a digital platform that enables the sale of renewable energy certificates, for customers who wish to purchase energy certificates from renewable and conventional sources.		The following functionalities were achieved in a testing environment with users: plant management, creation of certificate sales flow, user and role management, integration with the certifying entity.	Partial
	To have in production environment a platform to automate the water purification process and the assets of the process, achieving efficiency and timeliness in the provision of the service.		The following functionalities were achieved in a test environment with users: Process and pump data capture, data visualization, user and role management, process and maintenance alerts and alarms management and deployment in productive.	Partial

Main achievements 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Energy transition	Smart Grids Project (Renewable).	EPM	Integration of the first 5 photovoltaic plants (>10kW) with internet of things technology, based on a standardized data model.	Partial
	Intelligent Networks Project (Coverage).		Design of prepaid/postpaid (time + energy) reading, metering and billing solution for electrification in non-interconnected areas.	Partial
	Smart Grids Project (Energy Losses).		Integration of more than 900 Remote Macrometers, more than 90 Combined Equipments and more than 30 Remote Metering Installations, all remotely managed, unifying these new sources of information with the current sources available in the EPM databases for the formulation of balances with greater periodicity and the possibility of applying analytics, alarms and events.	Total
	Intelligent Networks Project (Gas).		Implementation of the first test remote telemanagement IT/TO architecture in the gas operations center building, comprising volume correctors and end-user remote metering equipment, balancing, remote gas volume consumption management and validation of the telecommunications component.	Partial
	Pilot of Advanced Metering Infrastructure in Energy - AMI Energy.		An Integrator contracted for the design, modeling, and initial definitions of the AMI pilot, as well as IT developments to ensure AMI transactions.	Partial

Main achievements 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Digital Transformation	Planning of a controlled test environment - sandbox - in Advanced Water Measurement Infrastructure - AMI aguas.	EPM	▶ Communication and reading tests of DN15 type meters in the water sandbox. ▶ Regulatory referencing for the water business. ▶ 19 Watertech telemetered water meters with cellular communication, displayed in the management center of the for data management and decision making. ▶ 50 telemetered meters installed in the Sucre district, Watertech brand, with LoraWan communication module, visualized in the measurement management center for data management and decision making.	Total
	Sandbox planning in AMI gas advanced metering infrastructure.		▶ Communication test with G6 gas meter, installed in the restaurant on 30 and monitored through the Lora type network that EPM has for this purpose. ▶ Regulatory referencing for the gas business.	Total
Circular economy	Pilot structuring of final disposal of meters and waste electrical and electronic equipment (WEEE).		▶ Market study. ▶ Previous studies. ▶ Respective justifications. ▶ Definition of the recruitment strategy.	Partial
Innovation Management	Submit call for the CIER award on the innovation platform.		1st place Innovation Award at national level for Innovation Platform - sandbox.	Total

Challenges 2024

Program, project, initiative or action	Challenges	Company	Business	Geography
Profitability of operations	Replacement of SF6 as insulating gas for power substations, encapsulated. Includes the implementation of actions of the change management mitigation plan.	EPM	Energy - T&D	Colombia - Antioquia
	Execution of a pilot test of satellite technology for the localization of touch hazards with vegetation.			
	Development of sustainable consultancies to identify new technologies for substations under environmental sustainability criteria.			
	Battery Energy Storage (BESS), including the development of the business case for mobile solutions and the structuring of the Energy arbitration project (EPM and DelSur).			
	Digital substations (SED), includes the closing of the change management mitigation plan, basic SED training (second cohort) and advanced SED training (first cohort).			
	Completion of the pilot project on new technologies for sewer overflows - vortex valve technology.		Water and sanitation	
	Completion of the pilot project for non-discharge technologies in decentralized sewage systems.			
	Study on disinfection by-products to evaluate the requirement for new drinking water disinfection technologies.			
	Surveillance on new data analytics technologies for sewer system equipment and networks.			
	Development of Cost-Risk-Performance analysis for the implementation of vegetable oil as dielectric in power transformers.		Energy - T&D	

Challenges 2024

Program, project, initiative or action	Challenges	Company	Business	Geography
Profitability of operations	Surveillance on new technologies for the use of nano bubbles for aeration of activated sludge reactors in WWTPs.	EPM	Water and sanitation	Colombia - Antioquia
	Evaluation of use cases and technical-economic feasibility of water treatment technology with dissolved ions generated on site.			
Digital transformation	Enable in a productive environment an energy management platform that unifies and can be used for the different types of EPM customers and that allows offering consumption visualization services, predictive and prescriptive analytics.		Energy - T&D	
	On-site billing: Start-up of production PHASE I: Monthly regional energy and PHASE II: Regional energy + Bimonthly and quarterly.			
	Complete 100% in productive environment the implementation of the DXP Digital Experience Platform for the commercialization of products and services, including: migration of portals, minimum viable product of e-commerce, customer analytics and customer performance database.	EPM and subsidiaries in Colombia	Energy, Water and Gas	
	Complete 100% of the agreed functionality for the product and service marketing SuperApp and put it into production with the 12 migrated applications.	EPM		
	Finalize the procurement process for data warehouse and industry data model for marketing products and services, and implement the analytics solution for the business use cases			

Challenges 2024

Program, project, initiative or action	Challenges	Company	Business	Geography
Digital transformation	Implementing disruptive digital solutions as a group and working as a team with subsidiaries to create economies of scale, reduce implementation time and costs.	EPM and Grupo EPM	Energy, Water and Gas	Colombia, Panama, El Salvador and Guatemala
	Testing of the AMI water technology toolset.	EPM	Gas	Colombia - Antioquia
	Testing of AMI's gas technology toolkit.		Energy	
	Definition of sandbox operating model as a process for energy, water and gas businesses, and incubation of solutions.		Water and sanitation	
	Develop and implement EPM's digital roadmap considering business initiatives and proposed productivity pathways.		Energy, Water and Gas	Colombia
	Agree with the Sendas de Productividad program the initiatives to be implemented in the period 2024-2025 of those defined in the consultancy for IT Management and the provision of the necessary resources to carry out their implementation.			
	Define the strategy for migrating "on-land" applications to the cloud, evaluate benefits, technical and financial impact of moving Capex to Opex and define the migration plan. Define a cloud finance strategy to optimize the use of cloud services. Establish a cloud center of excellence to perform the migration of applications according to the defined strategy.	EPM and Grupo EPM		

Challenges 2024

Program, project, initiative or action	Challenges	Company	Business	Geography
Digital transformation	Implement innovative digital solutions that enable the generation of new services and capabilities to contribute to the achievement of the organization's strategic objectives.	EPM	All businesses	Colombia
Energy transition	Formulate and implement business cases for energy transition.			
	Formulate and implement business cases and partnerships to advance the development of the hydrogen market.			
Innovation management	Articulation with the innovation ecosystem.			
Energy transition	Study and design of operating model and operation of smart grid use cases.		Energy	
	Beginning of the contracting process for the implementation of the energy pilot for EPM.		Gas	
	Accession process of the national subsidiaries to EPM's contract for the execution of the energy pilot.	EPM and Subsidiaries in Colombia	Energy	
Circular economy	Beginning of the contracting process for the implementation of the WEEE pilot program.		Agua	
	Formulate and implement business cases for the circular economy.	EPM	All businesses	

Sustainable Development Goals

Associated stakeholders

- *Customers and users*
- *Owner*
- *Government*
- *EPM Group People*
- *Investors*
- *Suppliers and contractors*
- *Partners*

Contents of GRI standards and corporate indicators

Content GRI 3-3	*Management of material issues*
EPM-19	*Resources for technology and innovation initiatives*

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Nacionales EPM
- Central Hidroeléctrica de Caldas - CHEC
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Elektra Noreste - ENSA

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia - El Caribe

- El Salvador
- Guatemala
- México
- Panamá

Business

- Water
- Sanitation
- Electricity
- Gas

‹ Back to content

Sustainability Report 2023

Energy Transition

Grupo·epm

Energy transition

EPM seeks the substitution of greenhouse gas emitting fuels for cleaner sources, which implies changes in supply: cheaper energy, greater efficiency and consumer participation.

Generation: *offer competitive energy by growing in solar and wind generation, taking advantage of our strengths in hydro generation and offering reliability with a diversified portfolio.*

Transmission and distribution: *to grow and make the business profitable, with a safe, sustainable, resilient and innovative operation, based on smart grids and digitization of processes as a platform for new uses and services.*

Gas: *to guarantee the sustainability of the business with a competitive supply, leveraging inorganic growth and the commercial implementation of new fuel gas technologies.*

Management in 2023

Grupo EPM continued to emphasize the hydrogen focus, and invested COP 4,922 million in the identification of production and commercialization models, business case for exports, map of allies and the Hydrogen Hub of Medellin. In alliance with the subsidiary Aguas Nacionales, it invested COP 2,500 million in the installation and assembly of the pilot project for the production of 5 kg/day of green hydrogen, located in the Aguas Claras wastewater treatment plant.

In **renewable energies,** the EPM Group invested COP 1,816 million as follows:

- Pilot of solar communities in Medellín, with 43 solar modules installed in the homes of 24 families, generating 1,800 kWh/month, equivalent to COP 8 million.

- Two business models: firmness for renewables and demand management, and specialized software for distributed energy resource management.
- Smart solar solutions with internet of things -IoT-.
- At Adasa, the measurement and monitoring system of Law 21305 on energy efficiency continued.

- CHEC continued with the Delfin program, which promotes academic training in solar energy; Minciencias endorsed the projects: feasibility and efficiency of thermo-solar technologies for solar water heating, and the hybrid system of electricity generation through photovoltaic pumping and micro hydroelectric power plant, and the agro voltaic generation system using bifacial panels in the innovation center of eastern Caldas; solar architecture pilot for users to generate solar energy in their homes and construction and automation of the innovation cube (Kuntur Lab); and pilot of air conditioning of environments integrating radiant floors through solar thermal energy.

COP 1,011 million invested in the implementation of sustainable mobility:

- EPM conducted business cases for five prioritized initiatives for new future business and smart electric load management.
- CENS built an internal charging station as part of the pilot with the electric bus.
- EPM Guatemala installed a 150 KW fast charge charger for electric vehicles of the internal fleet.

In **energy efficiency**, ENSA invested COP 16,281 million in the modernization of public lighting to LED lighting and EDEQ is making progress in AMI and smart metering. EPM advances in the remote management of lighting. AMI energy, and smart solutions to control energy and gas losses.

Investment in energy transition (COP million)

Concept/Indicator	2022	2023
EPM parent company	19,698	6,990
Subsidiaries Grupo EPM	4,032	20,584
Total investment	23,730	27,574

Source: *Executive Vice-Presidencies New Business Innovation and Technology, Business Management, Projects and Engineering.*

Contents of GRI standards and corporate indicators

EPM-19 *Resources for technology and innovation initiatives*

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Aguas Nacionales EPM*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Empresa de Energía del Quindío - EDEQ*
- *Centrales Eléctricas del Norte de Santander - CENS*
- *EPM Guatemala*
- *Elektra Noreste - ENSA*
- *Aguas de Antofagasta - Adasa*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Quindío*
- *Colombia - Norte de Santander*
- *Guatemala*
- *Panamá*
- *Chile*

Business

- *Water*
- *Electricity*

Back to content

Sustainability Report

2023

Digital Transformation

Grupo·epm

Digital transformation

It consists of generating new business models, greater efficiencies and innovative relationships with people and territories through technology, information and an agile organization that contributes to closing current and future gaps.

One way to organize a territory is by using technology and other elements to offer relevant services to citizens, businesses and visitors, facilitating governance and transparency, strengthening citizen participation and building a more equitable, inclusive and competitive city.

In this sense, Grupo EPM has projects to improve the intelligence of the services it provides, in smart grids, in analytics for loss and fraud detection in energy, gas and water, as well as automation and remote management of public lighting.

Management in 2023

Grupo EPM continued strengthening the digital transformation strategy in its territories through the application of artificial intelligence tools. CHEC invested COP 5,164 million in incubation and acceleration of the projects: information management model, robotic automation of processes, cybersecurity, and improvement of digital services, to provide a better experience and service to customers and CHEC human talent.

EPM invested COP 6,167 million in the development and implementation of a digital experience platform, which allows businesses to know the interests and needs of customers in real time; the pilot energy marketplace, which enables the "peer to peer" -P2P- business model for customers and energy suppliers in Colombia to make energy transactions from renewable energies; the SuperApp, with 12 micro applications migrated to the EPM Estamos Ahí App; EPM's digital assistant (EMA), with a new version of personalized voice and answering queries with artificial intelligence; green certificates, a platform that enables the sale of renewable energy certificates; a platform to automate water treatment processes and assets; an application that enables the sale of renewable energy certificates; a platform to automate

water treatment processes and assets; and an application that enables the sale of renewable energy certificates, a platform to automate water treatment processes and assets, platform to automate water treatment processes and assets (Cotiza), which allows users to know the status and progress of water and sewerage requirements; and EPM at your door, with the implementation of new functionalities in EMA.

Adasa invested COP 4,302 million in digital transformation activities for infrastructure, operation, control, and data acquisition.

CENS and EDEQ invested COP 2,098 million in robotic process automation (RPA) for the maturity analysis of the RPA practice and the development of applications for end-user service and data warehousing.

ESSA delivered 13 RPA solutions, with an investment of COP 304 million, to support operation technologies, marketing and offers, operation and quality, personnel administration, technical customer service, treasury, face-to-face channels, control, and energy reduction.

EPM Guatemala invested COP 1,352 million in infrastructure improvements for advanced AMI metering, solar calculator, intelligent water management, intelligent public lighting, improvement of payment channels and digitalization of the process of enabling self-generating customers.

Investment in digital transformation (COP million)

Concept/Indicator	2022	2023
EPM parent company	26,625	6,167
Subsidiaries Grupo EPM	11,888	13,220
Total investment	38,513	19,387

Source: *Executive Vice-Presidencies New Business Innovation and Technology, Business Management, Projects and Engineering.*

Contents of GRI standards and corporate indicators

EPM-19 *Resources for technology and innovation initiatives*

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Empresa de Energía del Quindío - EDEQ*
- *Centrales Eléctricas del Norte de Santander - CENS*
- *Electrificadora de Santander - ESSA*
- *EPM Guatemala*
- *Aguas de Antofagasta - Adasa*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Quindío*
- *Colombia - Norte de Santander*
- *Colombia – Santander*

- *Guatemala*
- *Chile*

Business

- *Water*
- *Electricity*

‹ Back to content

Sustainability Report 2023

Circular economy

Grupo·epm

Circular economy

EPM seeks to offer solutions aligned with the generation of value from circularity in production and sustainable consumption. The integration of technology and the promotion of business models that respond to the fundamentals of sustainable development for production and consumption systems, promote efficiency in the use of materials, water, energy and waste, taking into account the resilience of ecosystems, the circular use of material flows and the extension of useful life through the implementation of technological innovation, partnerships and collaborations between different actors.

Management in 2023

The EPM Group continued with the development of solutions and integrated technologies focused on the creation of value from circularity and sustainable use. In 2023 it invested COP 3.14 billion.

CENS invested COP 1,731 million in the reuse of concrete pole elements and in the extension of the useful life and recovery of the components of waste electrical and electronic equipment (WEEE) and transformers.

EPM continued with the development of sustainable solutions for the Water and Sanitation business, specifically with the projects:

- Research, in alliance with the Universidad Pontificia Bolivariana, to evaluate the capacity of microalgae in the treatment of EPM's water of interest for both wastewater treatment and in the desalination system, COP 286 million were invested in adapting the complementary treatment system with microalgae in two companies, in order to eliminate contaminants that traditional systems are unable to eliminate, and in the desalination system, two prototypes were installed in Urabá and Antofagasta (Chile).
- Intelligent Solutions for Aqueducts-SIA-, for which the prefeasibility, Lean business case (defined by EPM's PMO) was conducted, and market research with the firm IPSOS Napoleón Franco, to determine the potential target market for the new solution offered by EPM for the national aqueducts.

- Distributed systems for drinking and wastewater: executed the qualitative phase of the market study, with Ipsos Napoleon Franco, to determine the potential market (with the capacity to pay and interest in joint drinking water supply and sanitation solutions) in the municipalities near the Aburrá Valley metropolitan area and in the areas of influence of the EPM Group in Antioquia (EPM and subsidiaries).
- Pilot of integral management of unserviceable meters of the WEEE project, in which COP 785 million was invested in the adaptation of the facilities of the company's warehouse on 30th st (Medellín) is used for sorting materials and controlling deliveries to the commercial intermediary.

Aguas Nacionales and Cornare executed the pilot project for the use of biosolids as an input for the recovery and enrichment of soils in the municipalities under the jurisdiction of the Corporation.

CHEC implemented a 750-liter rainwater harvesting system with water recirculation to serve communities that are vulnerable due to lack of drinking water. This initiative is part of the CHEC INN intra-entrepreneurship program.

Investment in Circular Economy (COP million)

Concept / Indicator	2022	2023
EPM parent company	996	1,371
Subsidiaries Grupo EPM	23	1,769
Total Investment	**1,019**	**3,140**

Source: *Executive Vice-Presidencies New Business Innovation and Technology, Business Management, Projects and Engineering.*

Contents of GRI standards and corporate indicators

EPM-19 *Resources for technology and innovation initiatives*

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Aguas Nacionales EPM*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Centrales Eléctricas del Norte de Santander - CENS*
- *Aguas de Antofagasta - Adasa*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia - Norte de Santander*
- *Chile*

Business

- *Water*
- *Electricity*

‹ Back to content

Sustainability Report

2023

Profitability of operations

Grupo·epm

Profitability of operations

The cost-effectiveness of operations is understood as all actions carried out throughout the life cycle, aimed at providing services within the expected performance indicators: quality, operational safety, reliability and continuity, reducing the total associated costs, within a framework of sustainable performance, regulating interactions with all stakeholders in all businesses, in order to target the purpose of the EPM Group: contributing to the harmony of life for a better world.

Management in 2023

The subsidiaries of the EPM Group continued to excel in the modernization and improvement of assets for the provision of services.

CHEC invested COP 2,255 million and ESSA COP 1,056 million in the implementation of technological tools aimed at optimizing the operation, maintenance and management of the company's assets in terms of quality, safety, reliability and continuity of operation, and georeferenced updating.

EPM implemented the pilot project distributed water treatment systems in the Palmitas district of Medellín, to remotely manage compact water treatment plant solutions; it structured two controlled environments -sandboxes- for advanced water and gas measurement, and intelligent management of water loss control.

EPM advanced the pilot test of the technology for the detection of moisture in dams by means of satellite images.

EPM and CHEC continued the execution of the optimal planning project for the management of energy transmission and distribution networks, which has been approved by the Minciencias for tax benefits for science, technology and innovation.

CHEC continued with the project to optimize maintenance strategies in critical generation infrastructure based on 4.0 technologies, data analytics and artificial intelligence, with the support of Minciencias.

CHEC continued working on the initiative of experience and relationship centers, evolving from traditional customer service offices to new relationship spaces that seek to transcend the transaction and operation to conversation, generation of experiences and relationships with stakeholders. This innovation from marketing has allowed the promotion and dissemination of the Company's portfolio of solutions and services among different customers and stakeholders, promotion of educational actions, desirable behaviors such as enjoyment and payment culture, use of new digital self-service solutions and the creation of coworking spaces for different audiences.

CHEC and Delsur designed and implemented wildlife monitoring and deterrence strategies using the Internet of Things to minimize the impact on wildlife and equipment in electrical substations.

EPM Guatemala invested COP 857 million in the management of fast electric chargers: renting with energy, renting without energy, cash sale and improvement of smart metering.

Investment in return on operations (COP million)

Concept / Indicator	2022	2023
EPM parent company	3,884	1,900
Subsidiaries Grupo EPM	26,992	6,345
Total investment	30,876	8,245

Source: *Executive Vice-Presidencies New Business Innovation and Technology, Business Management, Projects and Engineering.*

Contents of GRI standards and corporate indicators

EPM-19 ***Resources for technology and innovation initiatives***

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Electrificadora de Santander - ESSA*
- *Distribuidora de Electricidad del Sur - Delsur*
- *EPM Guatemala*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Santander*
- *El Salvador*
- *Guatemala*

Business

- *Water*
- *Electricity*

‹ Back to content

Sustainability Report 2023

Innovation management

Grupo·epm

Innovation management

Grupo EPM continues innovating and seeking to be more efficient in its different processes, to adapt to the new realities and challenges that a changing environment demands. Based on the corporate strategy, an innovation management model is implemented that focuses on SDG No. 9: industry, innovation and infrastructure, which seeks to identify, formulate and execute projects, new businesses, new lines of business, products, services and capabilities.

Some of the mechanisms and actions to promote innovation in each company include:

- *Innovation training events.*
- *Competitions, launching of challenges, programs such as Innóvate Grupo EPM, CHEC INN, CENSNNOVA.*
- *Seed and project management, with application of agile methodologies and digital agile operating model.*
- *Management of innovation private equity funds.*
- *Interactions with the science, technology and innovation ecosystem (Ruta N, Minciencias, MinTIC, etc.).*

Management in 2023

EPM continued with the structuring of offers and search for solutions to optimize business operations through the FCP (Private Capital Funds for Innovation) - I and II. The extension of the disinvestment and liquidation term of FCP I was processed, the size of FCP II was increased with an in-kind contribution of up to COP 200 billion, 540 companies susceptible to investment were evaluated and the investment in Klik Energy, Erco Energía S.A.S. and NEU Energy was materialized.

EPM continues to promote open and collaborative innovation and entrepreneurship through the agreement with Ruta N and the programs Retos and Innóvate Grupo EPM. In the Challenges program, six initiatives were executed aimed at reducing water leaks, implementing a smart fuse solution, automating processes in the environmental area, monitoring gas business stations online, implementing a virtual office in the metaverse and a digital currency, for a value of COP 1,200 million; these actions involved 120 teams of EPM employees and 133 companies.

The EPM Group Innóvate program in the "discovering" category reached its third version with the participation of 350 9th and 10th grade students and 30 teachers from 9 educational institutions, seven schools located in the metropolitan area of the Valle de Aburrá Valley and two in municipalities of eastern Antioquia. The Innóvate program in the "entrepreneurship" category, in its eighth version, had 104 participants, 51 initiatives presented by students from 9 higher education institutions and employees of eight companies of the EPM Group in Colombia, Guatemala, Mexico and Panama. The outstanding projects were: "UBI" by CHEC in Manizales; "La ruta del reciclaje", by ENSA in Panama; "Power", by EPM Guatemala; "JaguarVolt" by Afinia in Cartagena; "Circular Spirit" by Ticsa in Mexico and "Eco fibra 360" by EPM.

CENS in the management of CENSNNOVA conducted training activities in Cuidamundos video game programming for 75 children, in InnovAcción CENS 2023, 76 people impacted and three winning proposals, in InnovAcción In House 2023, 88 people impacted and five winning proposals and other cultural transformation actions.

CHEC and EDEQ continued to strengthen the entrepreneurship and innovation ecosystem through their programs: "DELFÍN", "CHEC INN" and "Innovatech together for the territory with the best energy" with an investment of COP 319 million.

Investment in Innovation Management (COP million)

Concept/Indicator	2022	2023
EPM parent company	19,240	31,769
Subsidiaries Grupo EPM	298	1,080
Total investment	19,538	32,849

Source: *Executive Vice-Presidencies New Business Innovation and Technology, Business Management, Projects and Engineering.*

Contents of GRI standards and corporate indicators

EPM-19 *Resources for technology and innovation initiatives*

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Centrales Eléctricas del Norte de Santander - CENS*
- *Empresa de Energía del Quindío - EDEQ*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia - Norte de Santander*
- *Colombia – Quindío*

Business

- *Water*
- *Sanitation*
- *Electricity*
- *Gas*

Back to content

Sustainability Report 2023

Transparency

Grupo·epm

Table of contents

Material issues

p.

Transparency 993

- Transparency practices 999
- Relations with interest groups and other stakeholders 1017
- Perception monitoring 1025

Transparency

It involves the management of information and communications in terms of sufficiency, relevance, timeliness and clarity to maintain trust and strengthen the relationship with stakeholders.

Approaches

- **Relationship building for the generation and maintenance of trust and reputation:** development of innovative, constant, and multidirectional relationship strategies with interest groups and other stakeholders, as well as the strengthening of accountability spaces that promote participation and social control.
- **Information regarding contracting and contractor selection processes:** provision of sufficient, pertinent, timely and clear information on contracting criteria and processes, and selection of contractors.
- **Information regarding selection processes of Gente Grupo EPM:** sufficient, pertinent, timely and clear information on the candidates, profile, training, experience among other requirements of the selection processes of the Grupo EPM people.

Main achievements 2023

Program, project, initiative or action	Challenges	Company	Achievements	Compliance
Relations with interest groups and other stakeholders	Advance in the implementation of the Stakeholder relations plans, among which the Suppliers and Contractors plan stands out	Grupo EPM	The 10th Grupo EPM Suppliers and Contractors Meeting was held. - V Edition of Technical Conferences. The thematic focuses of the meeting were: energy transition, circular economy, operation profitability and digital transformation. The relationship with this stakeholder group was also strengthened through different communication channels: the EPM Te Guío Group Services hotline, web page and the stakeholder relationship mailbox *recyproco@epm.com.co*	**Total**
	Updated stakeholder engagement plans for all stakeholders in the Group's companies	Grupo EPM	A reputation study was conducted to identify reputation and relationship gaps.	**Total**
Transparency practices	Updating of documents related to the prevention of money laundering and terrorist financing risk - LAFT	EPM	In 2023, the following documents related to the prevention of money laundering and financing of terrorism were updated - LAFT * LAFT Risk Management System Manual: Updated at the April 20, 2023 Board of Directors meeting.*https://www.epm. com.co.co/content/dam/epm/epm/institutional/transparency-information-links-1781/Manual_Gestion_LAFT_2023.pdf* * KYC Third Party Awareness Form in Spanish and English: formalized in EPM processes in June 2023. * Certificate of Compliance with the Legal Provisions Related to the Prevention of Money Laundering and Financing of Terrorist Financing: publication made on June 22, 2023. *https://www.epm.com.co/content/dam/epm/ institutional/transparency-information-links-1781/Certificate- SARLAFT-22-june1.pdf*	**Total**

Challenges

Program, project, initiative or action	Chall	Company	Business	Geography
Transparency practices	Design the proposal of the Compliance Management Model - CRM within the GIR (Integrated Risk Management) project.	EPM	All businesses	Colombia - Antioquia

Sustainable Development Goals

Associated stakeholders

- *Grupo EPM People*
- *Partners*
- *Customers and users*
- *Government*
- *Suppliers and contractors*
- *Investors*
- *Owner*

Contents of GRI standards and corporate indicators

Content GRI 3-3	Management of material issues
Content GRI 205-2	Communication and training on anticorruption policies and procedures
EPM-02	Contractor Loyalty
EPM-06	Transparency and access to information index
EPM-07	EPM Customer Experience
EPM-09	Overall Contractor Satisfaction
EPM-15	Compliance with Stakeholder Engagement Plans EPM
EPM-33	Ethical Climate

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Empresa de Aguas del Oriente Antioqueño
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Aguas de Antofagasta - Adasa
- Elektra Noreste - ENSA
- Fundación EPM

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Risaralda
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - The Caribbean

- Chile
- El Salvador
- Guatemala
- Panamá

Business

- Water
- Sanitation
- Electricity
- Gas
- Waste

Back to content

Sustainability Report 2023

Transparency practices

Grupo·epm

Transparency practices

Grupo EPM implements initiatives, mechanisms and instruments of self-regulation for the prevention of FCS (fraud, corruption and bribery); it maintains the operation in an environment of security, transparency and trust, providing all its stakeholders with general parameters of action, in order to minimize the materialization of risks, such as money laundering and financing of terrorism (LA/FT), among others.

Likewise, EPM has made significant progress in the implementation of the National Government's Digital Policy, according to Decree 767 of May 16, 2022, which seeks to positively impact the quality of life of citizens and the competitiveness of the territories in which it operates, promoting the generation of public value through the digital transformation of the State, in a proactive, reliable, articulated and collaborative manner among stakeholders and allowing the exercise of the rights of users of cyberspace.

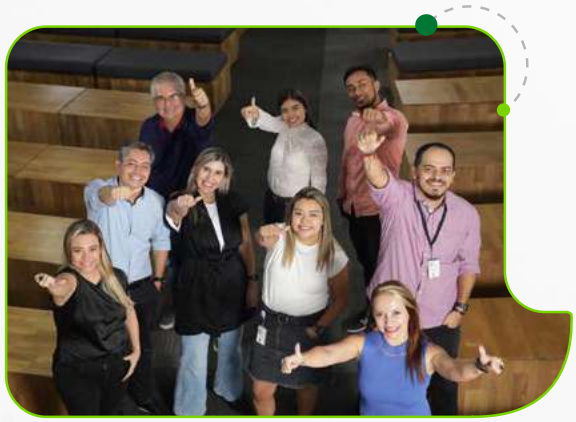
Management in 2023

Ethics and transparency mechanisms

Grupo EPM companies implemented a set of mechanisms and strategies to ensure that relations with its stakeholders are open and sufficiently informed. These are: Grupo EPM Code of Ethics; Group Business Conduct Manual; Corporate Governance Manual; Manual of Conduct for Suppliers and Contractors; Zero Tolerance Policy against Fraud, Corruption and Bribery; Transparency Statement, Declaration of Conflicts of Interest, preparation and management of the Anti-Corruption and Citizen Service Plan, annual response to the ITA (Active Transparency Index) evaluation of the Office of the Attorney General of the Nation, and the Complaints channel Ethical hotline **Transparent Contact.**

Transparency is a voluntary action that goes beyond compliance with laws. It is an ethical value of the Grupo EPM, a fundamental principle of good governance that motivates change, helps build trust and credibility, creates opportunities, facilitates and dignifies public work.

It is a mechanism to fight corruption, therefore, it is an essential business conduct, a non-negotiable value.



Its practice has strengthened the trust of stakeholders and people with whom it has a commercial or contractual relationship. Fraud, corruption and bribery prevention mechanisms are periodically socialized. This is the best way to build long-term relationships with stakeholders.

The Grupo EPM strengthens the capacities for participation, monitoring, advocacy and dialogue with all public and private stakeholders; it has self-regulation initiatives and instruments that allow it to maintain the operation in an environment of safety, transparency and trust. These best practices facilitate compliance with the corporate purpose, strategy, objectives and goals, of statutory and legal origin, and are the foundation of a culture based on values and ethical principles.

For this purpose, it has the following mechanisms: Grupo EPM Code of Ethics, Grupo EPM Business Conduct Manual, Corporate Governance Manual, Manual of Conduct for Suppliers and Contractors; Policy of zero tolerance for fraud, corruption and bribery; **Ethics Line; and - Contacto Transparente**, annual measurement of organizational ethical climate - USAID methodology; Sarlaft Manual (System for the Administration of the Money Laundering and Terrorist Financing Risk), conflict of interest management and voluntary declaration of transparency.

It also belongs to the Collective Action for Ethics and Transparency in the electricity sector and to the CCEC (Colombian Business Compliance Committee), in addition to its participation in various local, regional, national and international guilds.

Preventing fraud, corruption and bribery

Annual measurement of the organizational ethical climate

The seventh round of this measurement was conducted in 2023. Its results contribute to the review of the ethical management process in EPM and its impact on the evolution of the organizational culture. The perceptions of the employees were collected according to the guidelines of the ethical framework of EPM's culture. The measurement was based on the **USAID Model of Ethical Management for State Entities.**

Since 2021, the measurement of ethical climate has been carried out in all companies of the Grupo EPM using the mechanisms offered by the EPM parent company.

The survey was conducted among **8,287** employees with a response rate of **37.04%.** Twelve categories were measured: nine categories in a status of excellence, two in strengthening and one in a weak state. In 2023, the category "Relations with competitors" was included. The results were presented and discussed at the Ethics Committee.

EPM carried out an exercise to measure **EPM**'s **ethical perception** among

	Category	2022	2023
1	Personal ethical principles and values	98.10 %	98.53 %
2	Ethical principles and values at EPM	76.26 %	81.55 %
3	Leadership of managers in ethical management at EPM	77.34 %	74.86 %
4	Employee relations at EPM	88.60 %	87.34 %
5	Relations with contractors and suppliers at EPM	77.86 %	76.97 %
6	Relations with competitors and EPM	Incorporated by 2023	87.97 %
7	Relations with other public entities in EPM	86.33 %	90.68 %
8	Community relations at EPM	91.04 %	90.95 %
9	Environmental relations at EPM	94.88 %	92.83 %
10	Construction and ethical management at EPM	93.88%	92.83 %
11	Knowledge of EPM's ethical values	82.55 %	85.20 %
12	Knowledge of EPM's ethical principles	60.56 %	56.28 %

Red	It shows the deficiencies and gaps that should be addressed as a matter of priority.	20 to 40 %
Orange	Expresses a state of notable weakness in the evaluated aspect.	41 to 60 %
Yellow	He states that a process of implementation and strengthening is underway, although with some gaps and weaknesses.	61 to 80 %
Green	Indicates parameters of excellence.	81 to 100%

Comparative results of ethical climate measurement 2022 - 2023

the stakeholders Community and Suppliers and contractors, and the group Opinion Leaders. This was done to know their opinion about EPM's ethical behavior and how they value the Organization's commitment to its values and ethical principles. The objective was to generate conversations and reflections that help direct the process of judgment and decision making towards a correct performance at work.

Ethical line Transparent Contact

This is one of the mechanisms for receiving possible incidents or improper behavior by Grupo EPM employees or contractors. It allows our stakeholders to report any act they consider improper caused by an employee or contractor.

The channel operates for all subsidiaries of the business group and for EPM. It is one of the strategies for compliance with Article 76 of Law 1474 of 2011 "New Anti-Corruption Statute" for Colombia, extended as a good practice to the other countries where Grupo EPM has presence. See: *https://www.epm.com.co/institucional/transparencia/contacto-transparente/*

Enabled reporting channels:

- *EPM website* and websites of each national and international operating subsidiary.
- Correo electrónico: contactotransparente@epm.com.co
- Nationwide toll-free hotline: 01 8000 522 955
- Mobile App: EPM estamos ahí (Android - IOS).

According to the results obtained in the 2023 ethical climate survey, the

reporting of improper acts through the ethics hotline Contact Transparent increased by **5.8** points, from **33.1%** in 2022 to **38.9%** in 2023.

A monthly management report was prepared with the report of the complaints submitted to the Ethics Hotline and their follow-up. This report was shared with the General Manager of EPM, the Vice-Presidents of Risk and Corporate Audit, and the Disciplinary Trial and Disciplinary Instruction Units.

In the subsidiaries, the management report is quarterly and is addressed to the managers or legal representatives and auditors. The management report is submitted annually to the Audit Committee and the Board of Directors of EPM.

In 2023, **821** incidents were received, of which **320** corresponded to channel reach; **114** to fluid fraud; and the remaining **387** incidents were referred as PQR or others. Annual operating statistics are published on the website and are available here *https://www.epm.com.co/content/dam/epm/institucional/documentos/todos/informe-gestion-ct-vr-final.pdf*

Employee risk scenarios

Risk scenarios are built to identify situations that could materialize a risk of fraud, corruption, and bribery among employees. Once these possible scenarios have been identified, action is taken to seek ways to mitigate the risks in which the Company may be immersed due to the possible materialization of events.

Transparency and conflict of interest disclosures

The **Transparency Statement** is a voluntary initiative implemented since 2015; it is accepted by 94.54 % of employees.

Dissemination and training is permanently carried out in the companies of the Grupo EPM, with activities such as:

- Talks to officials of the EPM Foundation and EPM Guatemala to reinforce concepts about these statements.
- CENS, ENSA, Afinia, Fundación EPM and Delsur: advised on how to

present conflicts of interest of senior management at the Board of directors or corresponding directory.

- Information to the Board of Directors of EPM through the Audit Committee regarding the statements of the company's directors. The Company's compliance unit, the Corporate Legal Support Department and the Corporate Governance Unit have duly disclosed, recorded and analyzed any possible conflicts of interest.

The registration of actual or potential **conflicts of interest** declared by employees is done through a tool developed internally for its management by the Compliance Unit, with the support of the Ethics Committee and the legal support of the Corporate Legal Support Department when a closure or a legal concept is required in this regard.

Likewise, for the authorization of a trip originated by the invitation of a third party to courses or training events, the Compliance Unit's opinion is requested on whether or not it is convenient to accept such invitation or courtesy, in order to avoid a possible conflict of interest.

Zero tolerance policy for fraud, corruption and bribery

It has been adopted by all Group companies since 2015. *See here*

Anti-corruption and Citizen Service Plan - PAAC

Preventive instrument for the control of corruption. It has six autonomous and independent components with their own parameters and regulatory support. It reached 97% of execution, according to the Vice-Presidency of Corporate Audit. It is published on EPM's website and was disseminated to employees, community leaders, members of community action boards, suppliers and contractors.

Components of the PAAC

1. **Corruption Risk Management** - Corruption Risk Map - Compliance Unit
2. **Rationalization of Procedures** - Business Offer Unit
3. **Accountability** - Corporate Communication Management
4. **Customer Service** - Customer Service Management
5. **Mechanisms for transparency and access to information** - Gerencia Identidad Corporativa
6. **Additional initiatives** - Compliance Unit and others

The following activities were carried out, in compliance with Decree 124 of 2016 issued by the Presidency of the Republic:

- Consolidation of the activities proposed in each of the six components that are part of the PAAC and their results.
- Review, debugging and adjustment of the corruption risk scenarios in processes included in the Corruption Risk Matrix.
- Publication on EPM's website, before January 31, of the PAAC and the Corruption Risk Matrix.
- Presentation to the Management Committee and the Audit Committee of the PAAC and the Corruption Risk Map.
- Four-monthly progress reports on the implementation of the activities set forth in the PAAC and the support that sustain them.
- Preparation of proposal for "Typology - Corruption Risks", including. the risks contemplated by the MTE (Measurement of Corporate Transparency).

Regarding the EPM Group's Business Conduct Manual, in 2023, 231 employees of the Vice-Presidency of Energy Transmission and Distribution were trained and sensitized. *See manual here*

International Anti-Corruption Day

EPM was linked to this commemoration with the publication in the EPM en Común mailbox and in social networks, of contents and reflections that sought to raise awareness about the negative impact of corruption in society.

Five of the six energy subsidiaries of the EPM Group in Colombia are part of the **Ethics and Transparency Collective Actio**n, an electricity sector initiative that promotes good practices to combat corruption and to promote free competition. It is led by the NOC (National Operation Council) and XM S.A. E.S.P., with the oversight of the Transparency Secretariat of the Presidency of the Republic, Transparencia por Colombia and UNODC (United Nations Office on Drugs and Crime).

EPM participated in the working groups and technical committees that were convened. From the Competition Committee, the guidelines for participation in guilds were made official and disseminated among the members of the Action; the virtual course "Awareness-raising on free economic competition" was designed.

In the Human Rights Committee, EPM participated in the workshops and in the construction of the Collective Action's human rights risk matrix.

In addition, workshops were attended by speakers from member companies of the Collective Action, such as: Minimums of an anti-corruption program; elaboration of due diligence; signs of a good governance model; guidelines of a PTEE (Transparency and Business Ethics Program); communication and training on anti-corruption policies and procedures and communication plan; risk and control matrices, among others. We also participated in the XI Ethics Forum of the Colombian electricity sector, **"The energy that unites us" (La energía que nos une).**

Transformational Governance Think Lab

At the invitation of UN Global Compact, EPM represents Colombia in this laboratory, in which the following companies and countries participate: ANJ (Indonesia), APCO Worldwide; Corsearch; GEC Risk Advisory; Oxford University; Peace IQ (USA); ARGE Consulting (Turkey); Astellas (Japan); Baker McKenzie; Bennett Freeman Associates; Clifford Chance; Linklaters; Principles Responsible Investment; RELX; Pearson (UK); Principles Responsible Investment; RELX; Pearson (UK).); ARGE Consulting (Turkey); Astellas (Japan); Baker McKenzie; Bennett Freeman Associates; Clifford Chance; Linklaters; Principles of Responsible Investment; RELX; Pearson (UK); Competent Boards; Thomson Reuters (Canada); Enel (Italy); Engageability (Switzerland); EOH (South Africa); KenGen (Kenya); Nexus Vesting (Switzerland); Oando (Nigeria); SAP; Siemens Energy (Germany) and the World Economic Forum.

GT (Transformational Governance) proposes an ambitious, new and expanded, more holistic vision of ESG governance (environmental, social and governance factors that influence the performance and reputation of an organization). It is an invitation from the Global Compact to consider society at large in its efforts to strengthen business, sustainability and global governance. It requires working within organizations, with civil society and governments to strengthen institutions, laws and systems, in line with SDG 16 (Peace, justice and strong institutions).

Prevention of money laundering and the financing of terrorism

EPM, aware of the importance of preventing and detecting behaviors associated with money laundering (ML) and the financing of terrorism (FT) and other source crimes that threaten the integrity of the population, the economic system and its higher purpose, in compliance with the applicable rules and regulations, international recommendations and other local laws to manage the risks of MLF, has implemented, as an authorized economic operator, the requirements of External Circular 170 of 2002 of the National Tax and Customs Directorate, and some of the good practices of Sagrilaft (Comprehensive self-control and risk management system for money

laundering, financing of terrorism and financing of the proliferation of weapons of mass destruction) presented in External Circular 016 of 2020 of the Superintendence of Corporations.

EPM's LAFT risk management system is made up of eight elements that summarize the Compliance Unit's work to prevent these risks. The following activities are highlighted:

Element 1

Identification, control and monitoring of risks that may affect the achievement of institutional objectives.

- Identification of 11 risks and 18 sensitive processes, including human talent entry, real estate asset management, accounts payable, procurement, and the risks of listing counterparty linkage, procurement of sourced goods and contamination of inventories with illicit material.
- Support to the different departments of EPM in the definition of controls to strengthen the LAFT prevention mechanisms in issues related to the payment process (including controls for the application of Radian), the solution "EPM to your door" and registration in the Energy Market Place. For the development of this activity, technological tools were designed and implemented to allow massive consultation of third parties.
- 11 meetings with the LAFT liaisons of the subsidiaries in Colombia and some abroad to share information, experiences and best practices, and thus align LAFT risk management in the EPM Group.
- Review of decentralized LAFT controls defined in the processes of personnel hiring, minor purchases and contracting processes with a value of less than 1,000 SMMLV (current legal monthly minimum wages).
- Management of contracts and licenses to inquire and analyze third parties in restrictive lists, press and public information sources.
- Updating of four documents: LAFT Risk Management System Manual, KYC Third Party Awareness Form in Spanish and English and the Certificate of Compliance with the legal provisions related to the prevention to LAFT.
- Participation in the contracting precommittee.

Element 2

Due diligence activities

Activity developed to have an effective knowledge of all counterparties with which EPM seeks to establish or renew a relationship. A total of **7,890** extended due diligence requests were attended. **165,226** were performed in monitoring tasks, known as massive consultations, and **85,021** simple due diligences.

Element 3

Internal reporting

These reports are issued to address specific doubts due to alerts identified in due diligence tasks or on third parties with media exposure due to processes, investigations and sanctions from regulatory and control entities. Coordination of two RIC (Integration and Cooperation Meetings) and sending monthly reports to General Management on the development and effectiveness of the elements of the LAFT risk management system. To prepare management reports on the LAFT front, an application was developed in the Power App tool, which is operated from the Teams platform, and allows online control of tasks assigned, completed, response times, among others.

Element 4

Periodic reports to the Financial Analysis Information Unit.

Colombian government agency that analyzes information from different sectors to produce economic and financial intelligence reports. EPM must report to it suspicious operations, cash transactions exceeding USD 5,000, or the absence of these activities. In 2023, **5** suspicious transaction reports and **3** cash transaction reports were made for the delivery of per diems to **11** employees who traveled abroad.

Element 5

Attention to requests for information from competent authorities

The National Health Superintendency visited the Medical Service Unit to clarify the implementation of the elements for the prevention of the LAFT risk; the External Audit on compliance with the elements of the LAFT risk management system and the National Tax and Customs Directorate in the process of recertification of EPM as an AEO (Authorized Economic Operator).

Element 6

Dissemination and training

In 2023, the topic was divulged to 20 internal work teams, 5 talks were given to housing loan beneficiaries and 7 corporate inductions were held. We provided 13 advisory and training sessions to Group subsidiaries and participated in different scenarios. which made it possible to learn about best practices in LAFT prevention.

EPM has been an active member of the Colombian Business Compliance Committee since its foundation, and hosted the commemoration of Anti-Money Laundering Day, in which 242 people participated.

Element 7

Consideration in contracts, agreements, agreements or similar entered into by EPM

Inclusion in these agreements of declarations about the origin and destination of EPM's assets and resources, compliance with the regulations on prevention and control of money laundering and financing, non-linking to lists or investigations related to LAFT and the possible early termination of the agreement. relationship when risks are identified.

Element 8

Tasks to ensure the availability, integrity, and recoverability of the system's documents over time, review and adjustment to the Document Withholding Tables.

Protection of personal data

In compliance with the applicable rules and regulations, we have worked on the implementation of the requirements of Law 1581 of 2012, its regulatory decrees and the demonstrated responsibility guide issued by the SIC (Superintendence of Industry and Commerce).

Integral program for personal data management

Available on the intranet, where the existing actions and mechanisms and some pending implementation are compiled.

Support was provided to different departments of EPM and 3 subsidiaries of the Group.

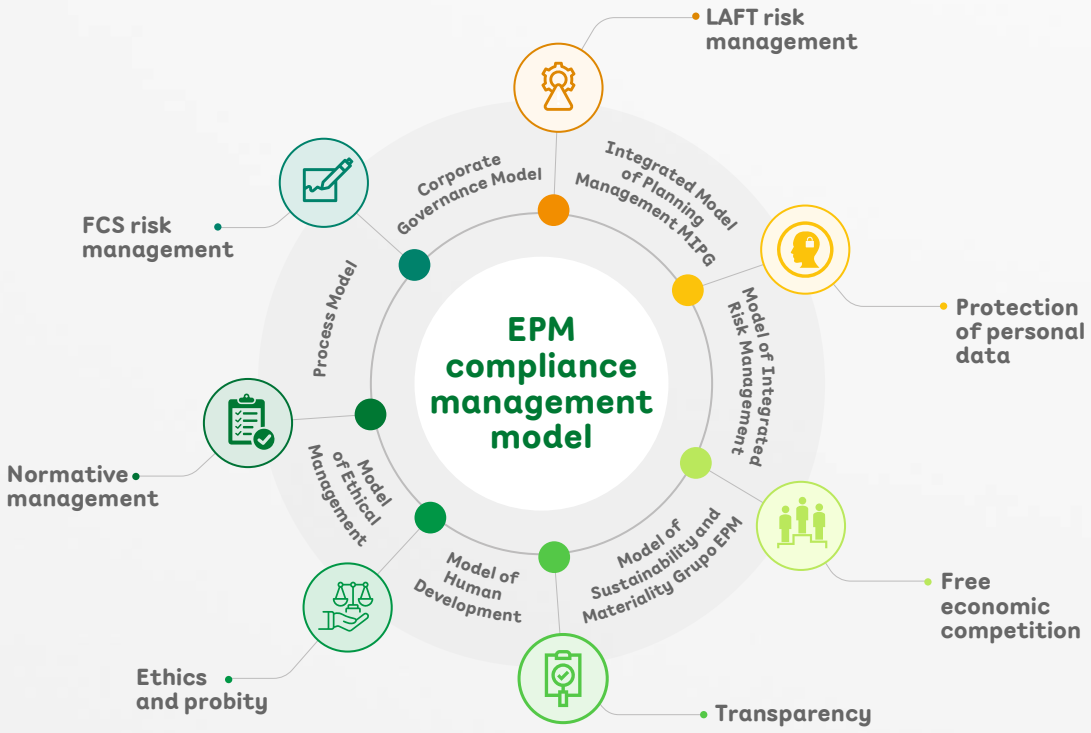
In addition, during the year, pedagogical, informative, and reflective content was disseminated through the Company's internal media system to raise employee awareness and draw their attention to these issues.

Update of the Risk Map specialized in personal data protection.

- **Updating the RNBD (National Registry of Databases)** before the dates established by the Superintendence of Industry and Commerce.
- **Attention to the requirements of the Superintendence of Industry and Commerce** in matters of personal data protection in relation to: cyber-attacks, advice for legal definitions, reports to the SIC and to owners, classification of exfiltrated information, documentation requirements, among others.
- **Issuance of 224 concepts** for requests received through the habeas data channel regarding the review of forms for the general manager's signature, preparation of privacy notices, authorizations and clauses.
- **Revision of 32 contractual clauses.**

Compliance Management Model at EPM

It is a model under development as part of the GIR Project and interacts with other existing management models and systems in EPM, as follows:



In its implementation in EPM, the following achievements and deliverables are highlighted in 2023:

- Approval of the Compliance Management Policy, in November, by the Board.
- Completion of sizing for the Compliance Management Model.
- Approval of milestones corresponding to capabilities, processes and organization.

Digital Government

In accordance with the Integrated Planning and Management Model (MIPG), the Company is committed to complying with the new Decree 767 of 2022 and all its new challenges.

This execution, carried out since 2011, has allowed EPM to have an implementation rate of 84.3% of the Digital Government Policy, according to the Furag evaluation (Single Form for Management Reports and Progress) carried out in 2023.

EPM is committed to the Digital Government Policy, which was renewed in 2022 through Decree 767 of May 16, 2022, which establishes the objective of "positively impacting the quality of life of citizens and, in general, the inhabitants of the national territory and the country's competitiveness, promoting the generation of public value through the digital transformation of the State, in a proactive, reliable, articulated and collaborative manner among stakeholders and allowing the exercise of the rights of cyberspace users".

This change has promoted:

- Governance, from the relationship between the national and territorial order and the central and decentralized levels.
- Digital public innovation, through the introduction of novel and creative solutions and that make use of ICT to resolve public issues from a citizen-centered perspective.

- The enabling elements of architecture, security and privacy of information and digital citizen services, adding the culture and ownership" enabler, the lines of action aimed at developing intelligent services and processes, making decisions based on data and consolidating an open State.
- The development of dynamic initiatives comprising digital transformation projects.
- Smart cities and territories strategies.
- It is complemented with guidelines, guides and standards to facilitate the understanding, systematization and comprehensive implementation of the Policy.

Digital Government Policy

Governance

Private Sector | Civil Academy | Citizens | Civil Society | Public Entities

Digital Public Innovation

Enablers
- Architecture
- Culture and appropriation
- Information security and privacy
- Digital citizen services

Lines of action
- Intelligent services and processes
- Data-driven decisions
- Open State

Initiatives to stimulate the development of
- Digital transformation projects
- Strategies for smart cities and territories

Target

Positively impact the quality of life of citizens and the country's competitiveness by promoting the generation of public value through the digital transformation of a state.

Guidelines, guides and standards

Measurement, control and continuous improvement

Relevant milestones 2023

In 2023 we achieved:

- Evaluation of 95% compliance with the ITA (Active Transparency Index), certified by the Attorney General's Office in 2022 and exempt from evaluation in 2023 due to the result obtained.
- Compliance with Resolution 1519 of 2020 was advanced, incorporating accessibility guidelines, open data management and transparency guidelines in its different annexes.
- Progress was made in the implementation of the open data initiative within the Organization by delivering new data sets.
- The pilot of digital citizen services and their integration to Gov.co was carried out.
- Institutional initiatives were aligned to mobilize the management of procedures, strengthen the accessibility of our digital solutions and the National Data Infrastructure Plan.
- With the support of MinTIC, the working group on digital citizen services for Antioquia continued its work.
- Accessibility practices were incorporated into the www. epm. com.co website in accordance with the work plan defined and the main lines of action were planned to be applied after migration to the DXP platform.
- Several transparency and citizen participation exercises were carried out through the website www.epm.com.co and EPM's social networks.
- The application for a seal of excellence in open data was made.
- EPM participated in the information management tools project to identify the Company's information assets.

Contents of GRI standards and corporate indicators

Content GRI 205-2 — *Communication and training on anti-corruption policies and procedures*

EPM-33 — *Ethical Climate*

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Elektra Noreste - ENSA

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Risaralda
- Colombia – Santander
- Colombia - Norte de Santander

- Chile
- El Salvador
- Guatemala
- Panamá

Business

- Water
- Sanitation
- Electricity
- Gas
- Waste

Back to content

Sustainability Report 2023

Relations with interest groups and other stakeholders

Grupo•epm

Relations with interest groups and other stakeholders

EPM facilitates the access of the different stakeholders to the hiring processes and job offers to preserve an objective and transparent selection process, in accordance with current regulations, under principles of opportunity, quality, equity and inclusion. To this end, it has channels that allow communication with suppliers, contractors, and other stakeholders. However, the relationship plans are sometimes affected by cyclical problems that affect the Organization.

Management in 2023

Transparency in the hiring of personnel

The selection processes in EPM are governed by internally issued business rules. They are executed in several stages: recruitment, pre-selection, assurance and hiring to measure the level of development of the applicants in the competencies that make up the profile defined for each position.

The process uses Proctoring monitoring tools for online test supervision and two platforms for test application. Integrity tests are also performed. In 2023, 4,605 selection processes were carried out.

In the underwriting stage, consultations were made in public lists and databases, medical examinations, and evaluations, among other activities, according to the characteristics of the position to be filled.

The Organization implemented adjustments, techniques, and procedures to facilitate the participation of candidates with disabilities.

In 2023, 2,819 PQR were received, categorized as follows: 2,817 PQR attended, one PQR proceeding and one PQR not proceeding.

Number of external people who applied for selection processes in EPM in 2023:

Number of external people who applied to the selection processes in EPM - 2023

Type of process	External	Internal	Total	Percentage
Promotion process	0	96	96	0.12%
Selection process for apprentices and trainees	4,721	1	4,722	5.74%
General selection process	71,138	6,304	77,442	94.14%
Total	75,859	6,401	82,260	100%

PQRs received, whether or not they are pertinent 2023:

Source	Company					Grand total
	EPM	CENS	CHEC	EDEQ	ESSA	
Attended	2,280	156	217	65	99	2,817
Not pertinent	1	0	0	0	0	1
Pertinent	1	0	0	0	0	1
Grand total	2,282	156	217	65	99	2,819

Percentage of internal selection processes and open processes:

Type of	EPM	CENS	CHEC	EDEQ	ESSA	Total	Percentage
Promotion process	52	0	0	0	1	53	2.79 %
Selection process for apprentices and trainees	97	0	0	0	0	97	5.11 %
General selection process	1,142	181	170	32	223	1,748	92.10 %
Total	**1,291**	**181**	**170**	**32**	**223**	**1,898**	**100 %**

Transparent management of contracting processes with third parties

EPM has several communication channels with its suppliers and contractors, through which they can consult and inquire about information related to contracting processes, among other issues. The most relevant channels are listed below.

- **EPM Group Service Hotline - Te Guío (I Guide You):** concerns related to the macro-process of supply of goods and services, general concerns about the applications that support contracting: Ariba and Te Cuento, minor purchases and concerns related to the payment portal or the request for withholding tax certificates or reteICA.
- **Mailbox for relations with Suppliers and Contractors recyproco@epm.com.co and WhatsApp Business hotline +57 3008553192:** are exclusive channels for suppliers and contractors of EPM Group. Through them, they receive queries related to the registration as a supplier in the Ariba platform, the procedure to contract with EPM and other general concerns. Additionally, information is shared on updates and new guidelines on contractual issues, invitations to events, the monthly newsletter and other relevant information for this interest group.

- **Website in the Suppliers and Contractors section:** this section publishes content that impacts this stakeholder group, for example, monthly bulletins, guideline updates, consultation of current contracting processes in Te Cuento, instructions for registration as a supplier in Ariba, among others.
- **Complaints mechanism:** all incidents related to alleged violations of the Manual for suppliers and contractors are received , through the channels established for the Transparent Contact line.

Work was done on the relationship plan with suppliers and contractors to have an impact on issues such as: updating and changes in procedures associated with the supply of goods and services, strengthening customer service and communication channels, etc. Strengthen local capacity building and management of the human rights complaints mechanism.

The following is a list of the number of **face-to-face and virtual events** held during 2023 to promote dialogue, relations, information and feedback with Suppliers and Contractors in EPM, in the energy and water subsidiaries in Colombia.

Company	Number of Events	Number of attendees
EPM	18	4,900
Subsidiaries in Colombia	32	775

Relevant aspects of stakeholder engagement plans/actions and other stakeholders

The EPM Group's Stakeholder Engagement Model contains the guidelines for strategic and comprehensive engagement in light of the sustainability issues or topics that affect the Organization and its stakeholders.

Grupo EPM's Sustainability Model seeks to maintain a good relationship with its nine stakeholders and other actors, through good transparency practices and the generation of spaces for participation that foster trust, communication and the strengthening of positive ties.

For this reason, the relationship model establishes unified criteria for the EPM Group, from which each company can establish synergies and alliances to solve problems and achieve objectives that the Company cannot achieve independently and for which it is necessary to interact with its stakeholders.

The mobilization of sustainability issues is necessary to update relationship plans that incorporate signals from stakeholders, the environment and are aligned with other global initiatives, and to demonstrate the commitment of the Group's companies to sustainable human development.

The **actions carried out during 2023 to guide the EPM Group's relationship with its stakeholders** were as follows:

- Definition of criteria for updating relationship plans with a view to aligning them with the actions to be carried out considering aspects related to material issues, SDGs (Sustainable Development Goals), reputation and accountability.
- Analysis and prioritization of material issues by stakeholder group.
- Conducting a reputation study to identify reputation and relationship gaps.
- EPM Group companies generate spaces for participation with their stakeholders and other actors to strengthen positive ties, trust and reputation, in addition to promoting assertive, transparent and multidirectional communication, such as, for example, public accountability.
- Nearly 35 events were held with suppliers and contractors on topics such as gender equity, human rights, climate change, and climate change, occupational health and safety, supplier development, among others. The main networking event was the 10th Meeting of Suppliers and Contractors EPM Group - V Edition of the Conference on Grupo EPM 's Suppliers and Contractors – V Edition of Technical Days. The thematic

focuses of the meeting were: energy transition, circular economy, operations profitability and digital transformation. A central forum was held around the first two focuses with panelists representing the trade, academic and business sectors, and EPM leaders.

- On the other hand, the relationship with this stakeholder group was also strengthened through the different communication channels, among which the following stand out: the EPM Group Te Guío Services hotline, the website in the Suppliers and Contractors section and the mailbox for relations with this stakeholder group *recyproco@epm.com.co* .

  Through this last channel, 85 notifications were sent, sharing information on updates and new guidelines on contractual issues, events, monthly newsletters and other relevant information.

- Through the follow-up of the legislative process of the National Development Plan, we were able to reduce the impact of some of the articles of the National Development Plan related to the corporate management of the public utilities sector. At the national level, issues of great importance for the viability of EPM's business management were dealt with, such as: sustainable mobility permits and procedures

before the ANI, Invías and the Ministry of Transportation, and the management of resources before the Ministry of Housing for water projects. Also noteworthy was the relationship with diplomatic personnel from different countries interested in getting to know EPM and building ties in the future.

- At the local and regional level, the strategy of openness of information during the electoral process with the aspirants to the positions of The popular election of the municipalities of Antioquia contributed to promote the approach and knowledge of EPM and the provision of public services. Agreements and permits were reached with the municipal administrations and the articulation between the territorial entities and EPM. We had permanent contact with the Medellín Council, attended to its requirements and summons, and responded in a timely manner to requests for public information.
- The support of the utilities sector for the management of the prioritized items of the National Development Plan was important. Also noteworthy was the coordination and support for the development of an agenda of meetings with business and political leaders regarding the business management of EPM and the business group.

Scope and coverage

Companies

- *Empresas Públicas de Medellín - EPM*
- *Empresas Varias de Medellín - Emvarias*
- *Central Hidroeléctrica de Caldas - CHEC*
- *Electrificadora de Santander - ESSA*
- *Empresa de Energía del Quindío - EDEQ*
- *Centrales Eléctricas del Norte de Santander - CENS*

Geography

- *Colombia – Antioquia*
- *Colombia – Caldas*
- *Colombia – Quindío*
- *Colombia – Risaralda*
- *Colombia – Santander*
- *Colombia - Norte de Santander*

Business

- *Water*
- *Sanitation*
- *Electricity*
- *Gas*
- *Waste*

Back to content

Sustainability Report

2023

Perception monitoring

Grupo·epm

Perception monitoring

EPM participates in and submits itself to various procedures for measuring transparency, corporate reputation studies, digital Global Reputation Index (GRI), customer and supplier satisfaction and loyalty and trust studies, in order to have a transversal view that allows it to adjust its processes and act in accordance with what society demands and deserves.

Management in 2023

Transparency Measurement

EPM has participated, since 2008, in the **Measurement of Corporate Transparency in the public services chapter**, promoted by Corporación Transparencia por Colombia. The general objective of the measurement is to improve transparency and anti-corruption standards, through the identification of corruption risks to strengthen corporate management. It is a tool that identifies institutional designs and practices that generate corruption risks.

In response to the invitation made every two years by Corporación Transparencia por Colombia and given that this is an initiative that EPM decides to join voluntarily, in 2024 it will participate in the MTE (Measuring Corporate Transparency) within the chapter of companies that provide public services.

This measurement focuses on increasing compliance of transparency and anti-corruption standards through the identification of corruption risks in order to strengthen corporate management.

Transparency and Access to Information Index-ITA

This index allows evidencing EPM's commitment with Transparency and Access to Public Information, contemplated in Law 1712 of 2014 and Resolution 1519 of 2020, associated to the Digital Government Policy. EPM obtained high scores in the measurement of the index of transparency and access to information in the year 2022, 98 % in self-diagnosis and 95 % with the review of the auditing firm Jahv Mcgregor S.A.S.

For the year 2023 and in accordance with Directive No. 011 of August 2023 *https://www.procuraduria.gov.co/Documents/Agosto%20de%202023/DIRECTIVA%20011%20DE%202023.pdf* of the Office of the Attorney General of the Nation, the obligated parties that obtained in 2022 a score lower than 60 or that have not filled out the entire form were urged to complete the form.

EPM was not found in the group targeted by the Attorney General's Office because the result obtained in the previous period was higher than 60 points.

Customer Experience Measurement (Experience Management)

The **NPS (Net Promoter Score)** indicator measures how willing a customer would be to recommend the brand based on the experience he/she had with the transaction.

EPM has opted for a work model in which the customer is the center of interest, with whom to generate an emotional bond. Under this model, EPM has set out to improve every moment of truth that the customer experiences in all interactions when using our public services. The goal is to generate pleasant memories, positive impacts that motivate their future utility decisions.

Transactional measurement

Transactional measurement qualifies the interactions or moments experienced by the customer in his relationship with the organization. It is done periodically with quarterly analysis and follow-up. The indicator that represents it is the transactional NPS (Net Promoter Score), an international indicator that determines how willing a customer is to recommend EPM based on the experiences he/she had with the transactions made.

Transactional measurement allows the identification of root causes and, therefore, the activation of the Experience Management program.

The result of the NPS indicator obtained with EPM in 2023 was 39 (on a scale of 0 to 100).

In 2023, 22 transactions were evaluated, among them: energy, gas and water PQR, energy damages, aqueduct, sewerage, requests, information requests or procedures, face-to-face and written complaints, among others. Customers said they were transactionally satisfied with the attention and support provided and with the quality of the public service rendered. They are dissatisfied with the delay and complexity of processes and procedures and the lack of solution to some requirements, especially requests made through the web.

Relational measurement

In order to improve the relationship with our customers, taking into account that relationships are the reflection of all transactional experiences, EPM incorporated new techniques and factors in the measurement.

Relational measurement monitors six key forces that help build relationships with customers and clients. The six key forces are: fair treatment, certainty, control, status, belonging and enjoyment.

Based on this new challenge, EPM seeks to understand how customers remember the relationship they have with the Company and the emotions it generates.

Rational and emotional attitudes work together in the mind of a user to build the relationship with brands. Therefore, the emotional connection of customers is taken into account, to strengthen the relationship and thus obtain positive results in our business.

The relational measurement, in addition to managing satisfaction, trust and permanence indicators, evolves to provide an indicator of customer bonding or emotional attachment. It is also an input for feedback and the permanent implementation of initiatives.

In 2023, the emotional attachment indicator was 48 (on a scale of 0 to 100). The result in the large customer segment stood out. Determining factors such as the unavailability of service, lack of clarity in the bill and the perception of rate hikes trigger dissatisfaction and low emotional attachment to the brand.

Annual accountability event

As a practice of transparency and openness of information and in compliance with constitutional and legal provisions, EPM annually performs its **public rendering of accounts**, to disclose the main achievements and challenges of corporate management and its articulation with stakeholders.

The central event of the public accountability with the people was held on Thursday, May 11, 2023 at 10:00 a.m. at the UVA of La Armonía, with live broadcast by Telemedellín, Teleantioquia and EPM social networks.

In this version, the most relevant facts of EPM and EPM Group for the period 2022 were presented.

Following the event and the broadcast, a press release was sent to all media outlets.

Main issues addressed:

- Strategic direction
- EPM Group business: universalization, investment
- Programs, projects and initiatives by business
- Progress on Ituango hydroelectric project
- Progress on the Tepuy solar photovoltaic project
- Circular economy
- Integrated management of water resources and biodiversity.
- MIT (Territorial Integration Model)
- Climate change
- Innovation management
- EPM Group suppliers, employment generation and local hiring.
- Diversity, inclusion and gender equality.
- Customer-focused organization.
- Christmas Lighting EPM
- Programs and projects of the EPM Foundation.
- EPM and Group financial performance

As deliverables of the public accountability, a digital report on the management of the EPM Group, as well as a physical summary booklet with the main milestones of EPM Group management were made available to stakeholders.

https://www.epm.com.co/institucional/transparencia/rendicion-de-cuentas/

Measuring contractor loyalty and satisfaction

The loyalty **indicator shows the satisfaction**, loyalty, and recommendation of the contractors of each subsidiary in three key processes: registration in the Ariba platform, contracting and contract administration (it should be noted that the registration process is a Group process). The **satisfaction indicator** focuses only on the satisfaction attribute.

The contractor loyalty survey yielded a score of 50.27 points, a figure that measures the contractors' perception of the likelihood of continuing their relationship with EPM, their overall satisfaction and the recommendation they can make to other companies for the registration, contracting and contract administration processes.

In the contractor satisfaction study, EPM obtained a result of 87.46 points.

Although the rating is between 81.3 and 87.5 out of 100, contractors continue to request more services and support from the Company.

Indicator	Result 2022	Result 2023
Contractor loyalty	59,17	50,27
Contractor Satisfaction	89,75	87,46

Loyalty

Indicator (%)

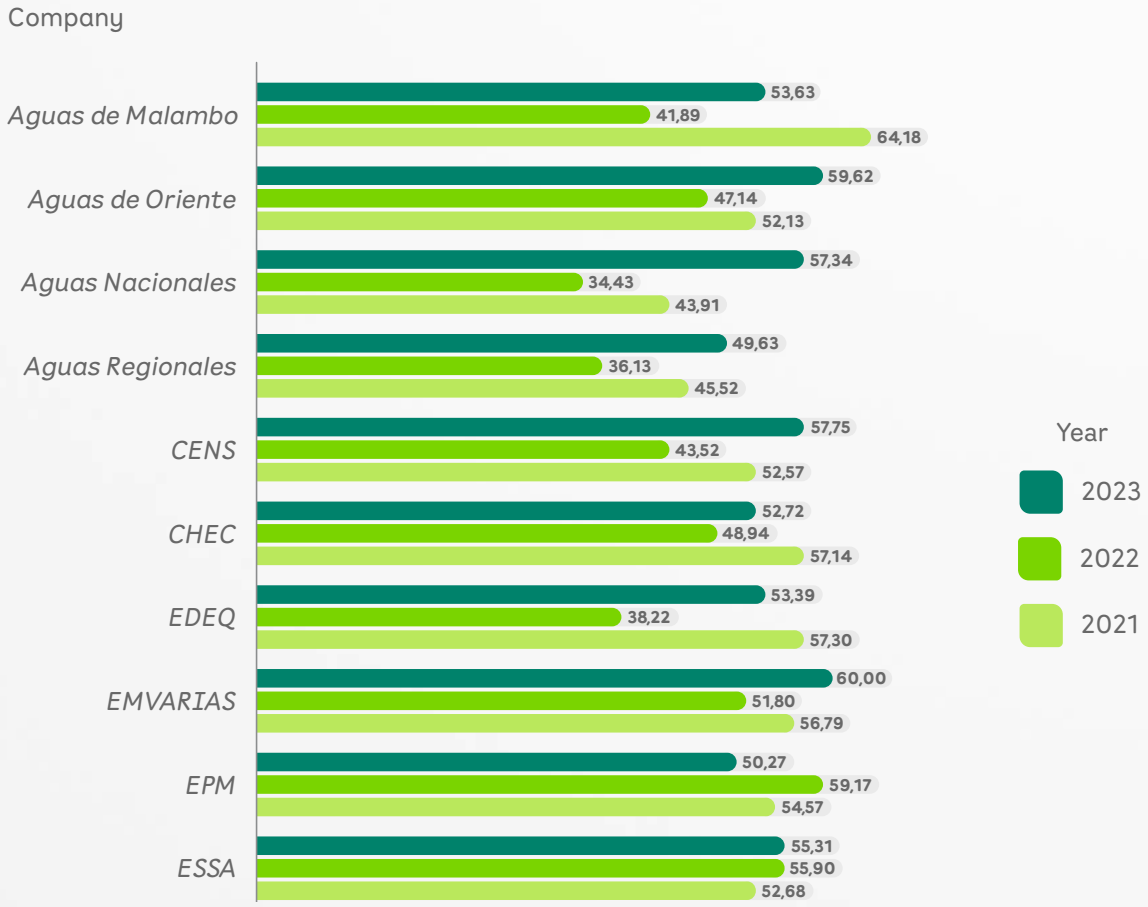
Overall Satisfaction

Indicator (%)

Results Grupo EPM (only subsidiaries in Colombia participate)

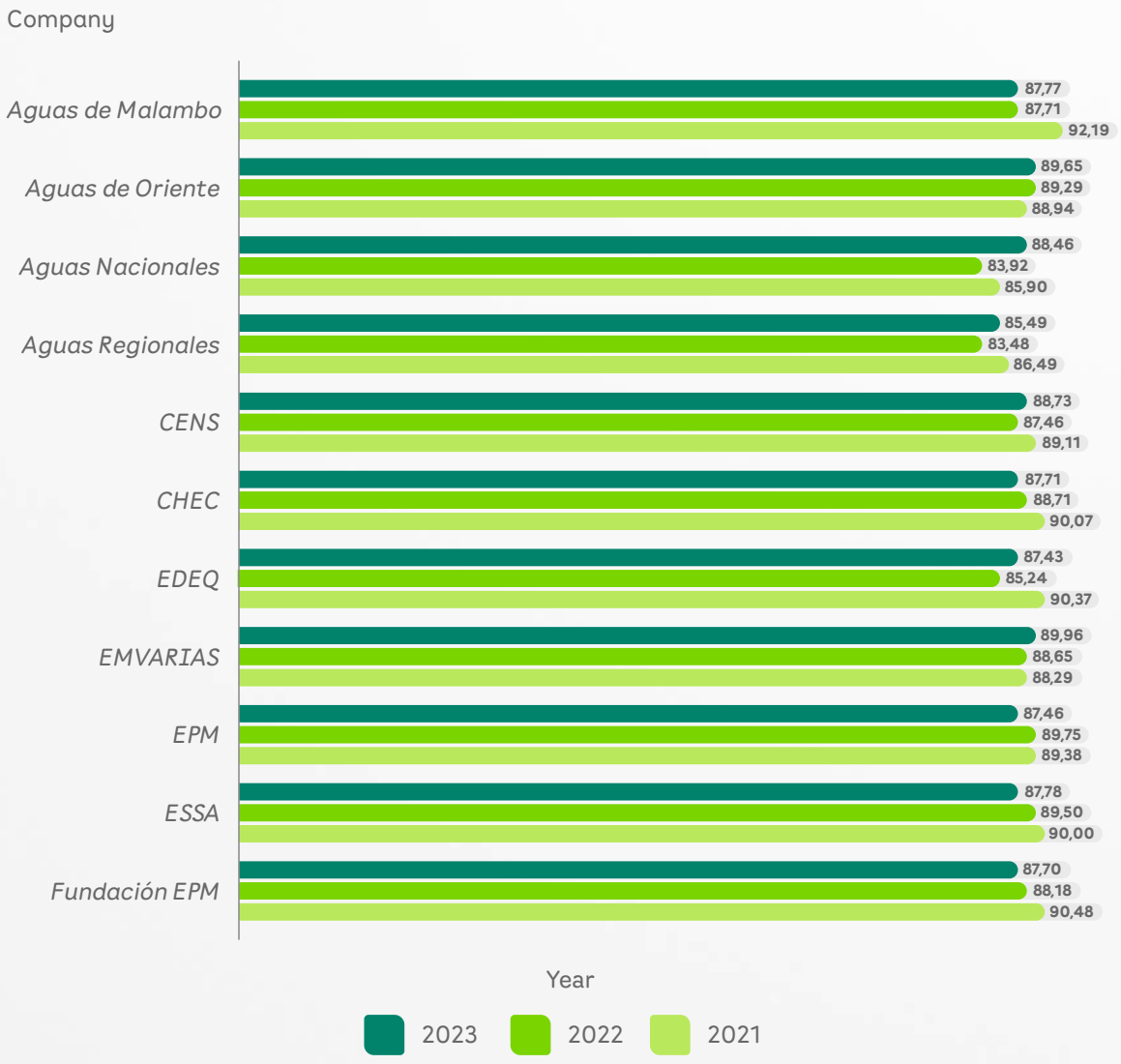
Loyalty

Indicator (%)



Overall Satisfaction

Indicator (%)



Contents of GRI standards and corporate indicators

EPM-02	Contractor Loyalty
EPM-06	Transparency and access to information index
EPM-07	EPM Customer Experience
EPM-09	Overall Contractor Satisfaction

Scope and coverage

Company

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Empresa de Aguas del Oriente Antioqueño
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Fundación EPM

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico

Business

- Water
- Sanitation
- Electricity
- Gas
- Waste

‹ Back to content

Sustainability Report 2023

Supplementary issues

Grupo·epm

‹ Back to content

Sustainability Report 2023

Sustainable production and consumption

Grupo·epm

Table of contents

Material issues

p.

Sustainable production and consumption 1036

- Energy consumption 1041
- Waste management 1053

Sustainable production and consumption

Set of actions that contribute to the transition from a linear development model to a circular one: prevention in waste generation, by-products and leaks; reincorporation to other productive processes; efficiency and closing of material, water (see Water and biodiversity), and energy (see Climate change) cycles; and business models to increase efficiency in production and consumption.

Among Grupo EPM's possibilities are optimizing resource use in activities for the provision of public services, impacting the practices of Grupo EPM People, suppliers, and contractors and guiding towards habit changes in customers and users.

Some ways in which Grupo EPM can contribute to circular economy and SDG 12 are: installing photovoltaic solar panels in headquarters, raising awareness in contractors and employees, improving waste separation at source, using organic matter for composting, and reaching agreements to use pruning leftovers.

Sustainable Development Goals

Associated interest groups

- *Customers and users*
- *Community*
- *State*
- *Grupo EPM People*
- *Investors*
- *Suppliers and contractors*

Contents of GRI standards and corporate indicators

Content GRI 302-1	*Energy consumption within the organization*
Content GRI 302-2	*Energy consumption outside of the organization*
Content GRI 302-3	*Energy intensity*
Content GRI 302-4	*Reduction of energy consumption*
Content GRI 302-5	*Reductions in energy requirements of products and services*
Content GRI 306-2	*Management of significant waste-related impacts*
Content GRI 306-4	*Waste diverted from disposal*
EPM-29	*Business environmental management index – IGAE*

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Hidroecológica del Teribe - HET
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Risaralda
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - El Caribe

- Chile
- El Salvador
- Guatemala
- Panamá
- México

Businesses

- Water
- Sanitation
- Waste
- Electricity
- Gas

‹ Back to content

Sustainability Report

2023

Energy consumption

Grupo·epm

Energy consumption

It seeks to optimize energy use (electricity, gas and others) through initiatives to reduce or stabilize consumption.

Grupo EPM is making progress in modernizing air conditioning systems, changing traditional lamps for those that have energy saving technology, replacing and renovating electric equipment, substituting the vehicle fleet that uses gas or diesel fuel to electrical or natural gas vehicles, installing gauges, monitoring the electricity and fuel consumption in own vehicles and in those of third parties, and raising awareness in Grupo EPM people and members of other interest groups to use energy more efficiently..

By using biogas from the sewage treatment plants, electricity from water resources, and installing photovoltaic solar panels in own facilities, it is possible to generate energy for self-consumption that meets part of the electrical demand.

The companies from Grupo EPM that distribute natural gas, energy and water, develop programs to reduce network losses.

Management in 2023

Self-supplied electric energy covered 10.27 % of internal demand. It was generated with water resources (67.24 %), biogas (19.69 %) and solar energy (1.11 %). The remaining 11.96 % was generated from natural gas.

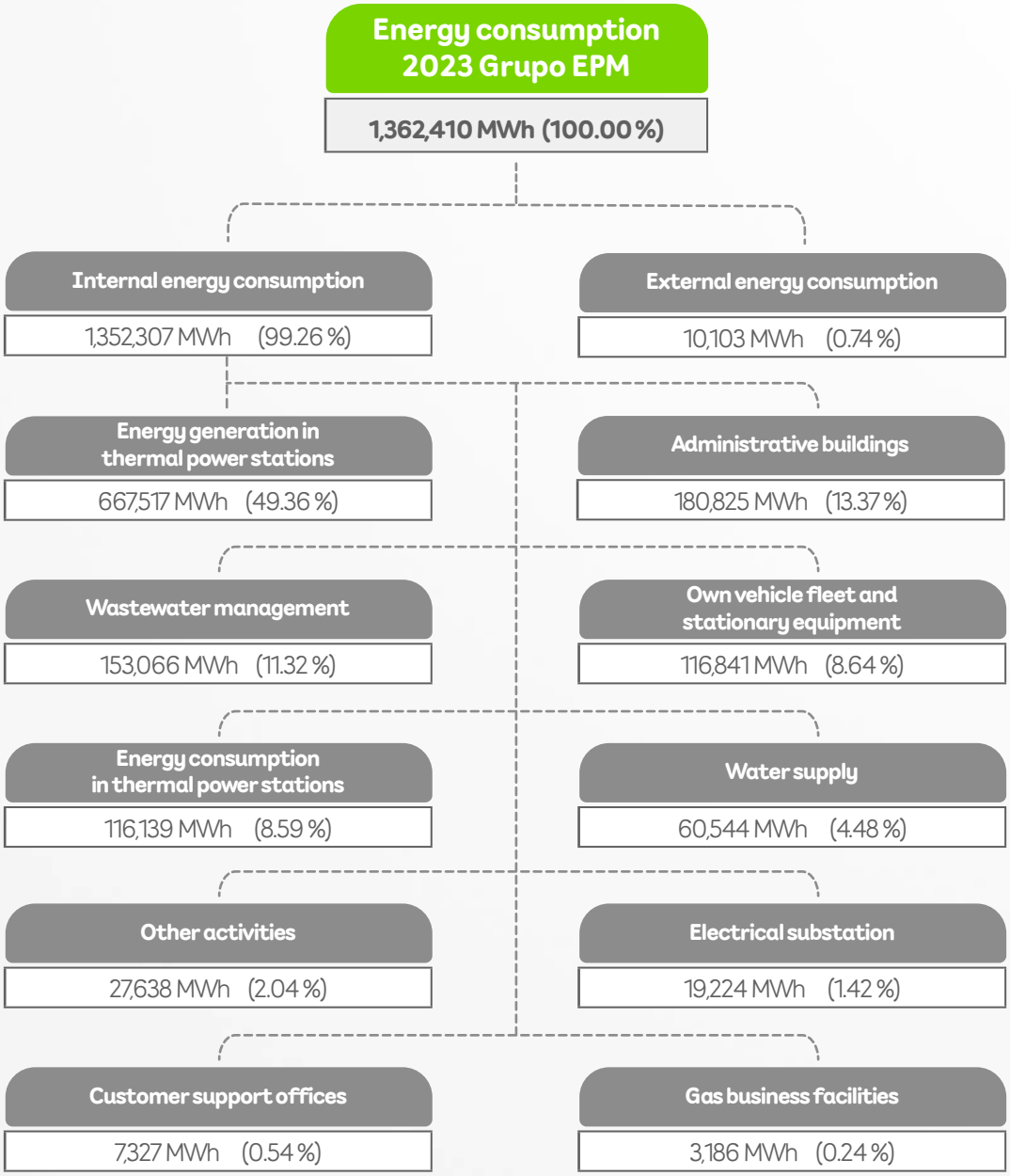
CENS advanced in installing and operating solar panels in own facilities to generate electricity for self-consumption: 427 panels with installed capacity of 213 kWP and a generation of 25,000 kWh-month. They replaced 85 obsolete air conditioning units

Grupo EPM uses energy resources in many other ways other than electricity to provide services. Electricity represents 37% of the total internal demand. The self-supplied electric energy comes mainly from renewable sources (water, sun and biomass). Electricity taken from the grid has both renewable and non-renewable components, that depend on the participation of thermal power stations in generating electricity for each country.

Fuels such as natural gas, diesel fuel, liquefied petroleum gas, fuel oil and gasoline come from non-renewable sources and constitute the remaining 63%.

The Group's internal consumption decreased 58.17 % compared to the previous term, mainly because there was less generation in La Sierra thermal power station and the contract for continuous gas supply finished. The most used fuel for generation was B2 diesel fuel, which in previous years had mistakenly been reported as fuel oil.

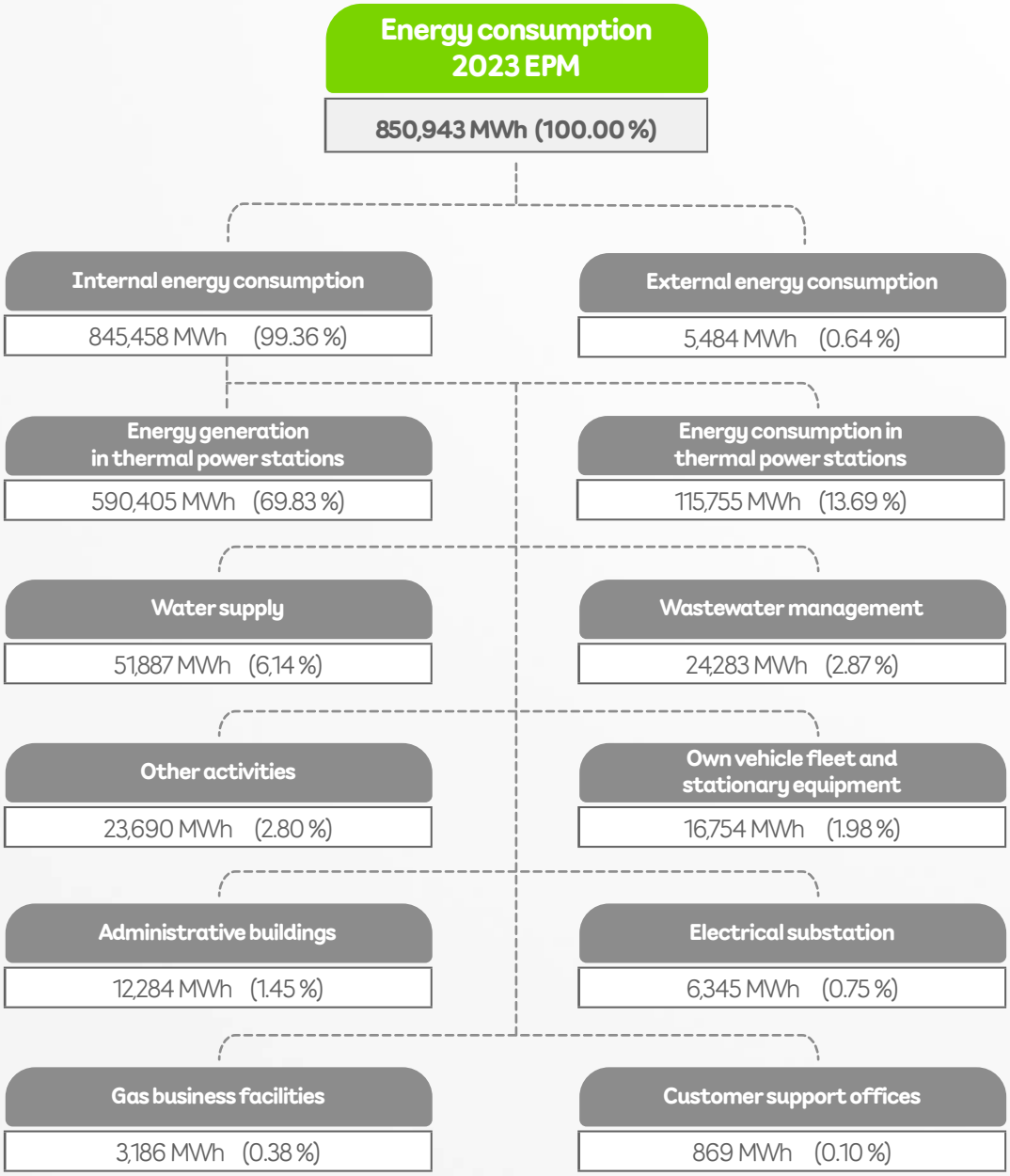
Energy efficiency and sustainable mobility (electrical vehicles and powered with natural gas) are initiatives that reduce energy consumption, decrease greenhouse gas emissions, and contribute to mitigating climate change.



Source: *Idsos application.*

Note: other activities include warehouses, storage rooms, power stations' campsites and technical centers.

Natural gas and B2 diesel fuel consumption in La Sierra and Dorada thermal power stations represented 49.36 % of Grupo EPM's internal energy demand, which impacted the carbon footprint (*see Climate change*).Both power stations respond to system demand.



Source: *Idsos application.*

Note: other activities include warehouses, storage rooms, power stations' campsites and technical centers.

69.83 % of EPM's internal energy demand belonged to natural gas and B2 fuel diesel in La Sierra thermal power to generate electricity.

Internal energy consumption Grupo EPM (MWh)

Energy sources	2021	2022	2023
Diesel fuel	49,496	66,375	**598,752**
Grid electricity	172,383	184,294	**361,463**
Natural gas	2,813,375	2,862,115	**195,276**
Self-supplied electricity	50,914	64,844	**138,878**
Natural gas for vehicles	19,099	39,397	**50,961**
Gasoline	16,401	6,037	**6,072**
Liquefied petroleum gas	1,257	627	**901**
Fuel oil	4	9,223	**4**
Total	2,901,050	3,232,911	1,352,307

Source: *Idsos application.*

Note: diesel fuel represented 44.28 % of internal energy consumption, grid electricity was 26.73 % and natural gas was 14.44 %.

Electricity generated in the Grupo EPM facilities (mainly sewage treatment plants, administrative buildings and substations) for own consumption increased 114.17 % due to the installation of more solar panels (*see Climate change*) and the increase of solar radiation in Colombia, consequence of El Niño-Southern Oscillation.

Aguas Claras plant, operated by Aguas Nacionales, generated 28.45 % of self-supplied energy and 67.48 % of biogas for Grupo EPM

By using photovoltaic solar panels, ESSA self-generated 36.93% of the electricity required for the facilities where they operate, EDEQ generated 19.82 % and CENS 13.02 % (*see Climate change*).

Internal energy consumption - EPM (MWh)

Energy sources	2021	2022	2023
Diesel fuel	19,243	13,579	**531,414**
Grid electricity	118,987	139,358	**147,512**
Self-supplied electricity	16,694	26,573	**98,372**
Natural gas	2,690,192	2,770,385	**63,398**
Gasoline	6,108	4,156	**3,615**
Liquefied petroleum gas	1,257	627	**821**
Natural gas for vehicles	731	404	**324**
Fuel oil	4	9,223	**4**
Total	2,833,969	2,941,502	845,456

Source: *Idsos application.*

Note: EPM required 62.52 % of the Group's internal energy. Diesel fuel was the most used (62.86 %).

70.83 % of the Group's self-supplied energy corresponds to EPM.

The reduction in fuel oil consumption and the increase in diesel oil compared to 2022, is a consequence of a mistake of La Sierra thermal power station, which reported liquid fuel as fuel oil instead of diesel fuel. In 2023, this problem was corrected.

Energy consumption in water supply - Grupo EPM

Company	Energy consumption (GWh)			Purified water (Mm^3)			Consumed MWh /Mm^3 of purified water		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
EPM	46.26	54.12	**51.89**	317.02	274.40	**318.39**	145.93	197.21	**162.97**
Aguas Regionales	5.19	5.26	**5.36**	26.63	28.96	**30.60**	194.96	181.75	**175.09**
Aguas de Malambo	4.89	3.26	**3.08**	11.50	10.18	**7.44**	424.95	320.64	**414.29**
Aguas del Oriente	0.20	0.21	**0.22**	0.89	0.97	**0.94**	221.43	214.64	**232.10**
Adasa	0.34	N.D.	**N.D.**	4.78	4.85	**4.85**	71.44	N.D.	**N.D.**
Total	56.88	62.85	60.54	360.82	319.37	362.23	157.64	196.80	167.14

Source: *Idsos application*
It includes the electricity from water treatment plants, tanks, pumps, wells and collection stations.

Note: Grupo EPM consumed 60,544 MWh for water supply (4.48 % of internal demand); EPM needed 51,887 MWh. The 15.07 % decrease in the energy intensity for Grupo EPM's water supply means that in 2023 they needed less energy to purify more water.

The energy intensity for EPM's water supply decreased 17.37 %.

Energy consumption (MWh)

Company	2021	2022	2023
Aguas Nacionales	45,950.77	123,843.43	**122,569.66**
EPM	23,795.89	25,287.46	**24,282.83**
Ticsa	N.D.	N.D.	**3,360.51**
Emvarias	2,218.58	2,517.00	**2,485.56**
Aguas Regionales	285.60	342.19	**286.93**
Aguas de Malambo	28.68	23.76	**80.53**
Total	**72,279.52**	**152,013.84**	**153,066.01**

Fuente: *Idsos application*
It includes energy use in sewage treatment plants and in pumping stations.

Nota: energy consumption for managing wastewater in Grupo EPM was 153,066 MWh (11.32 % of internal demand); it increased 0.69 % compared to 2022.

For the first time, the record of energy consumed by Ticsa for managing wastewater was included.

EPM treated 15.86 % of the wastewater managed by Grupo EPM in 2023.

Aguas Nacionales treated 80.08 % of wastewater. The methane produced in the anaerobic digestion of sludge helped self-supply 48% of the electricity required for Aguas Claras plant. Self-generated electricity increased in 5.46 %, compared to the previous year. 12.49 Mm^3 of biogas were used.

Energy consumption in managing wastewater - EPM

Aspecto	2021	2022	2023
Energy consumption (MWh)	23,795.89	25,287.46	**24,282.83**
Volume of treated wastewater (thousands of m^3)	55,860.79	55,387.54	**50,978.12**
Generated renewable energy (MWh)	7,887.68	7,152.60	**5,524.80**
Proportion of generated energy compared to consumed energy	33.15%	28.29%	**22.75%**
Consumed kWh /thousands of m^3 of treated wastewater	**425.99**	**456.56**	**476.34**

Source: *Idsos application.*

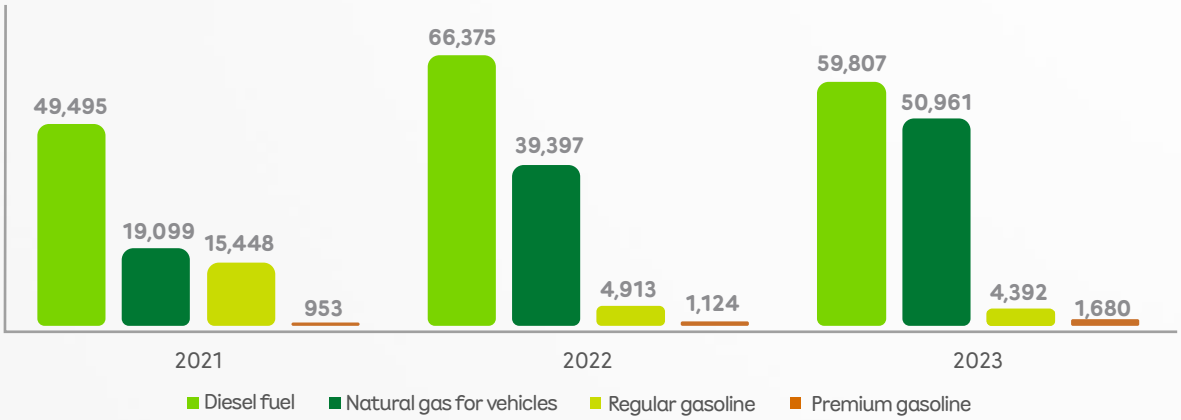
Note: energy consumption corresponds to three pumping stations and five treatment plants.

Wastewater management in EPM required 24,283 MWh (2.87 % of internal consumption). The 22.76 % decrease in generated renewable energy is due to a failure in the operation of a motor generator and to the start of operation of a biomethane plant, that aims to purify the biogas generated in San Fernando plant to inject it to the natural gas distribution network.

The San Fernando plant used 6.02 Mm^3 of biogas, by increasing 24.54 % of the production of this gas compared to 2022, due to the expansion and modernization of this facility. The entire amount of wastewater had a secondary treatment; therefore, more load was extracted that was transformed into sludge and part of this into biogas.

.

Energy consumption of own fleet and stationary equipment Grupo EPM (MWh)



Source: *Idsos application.*

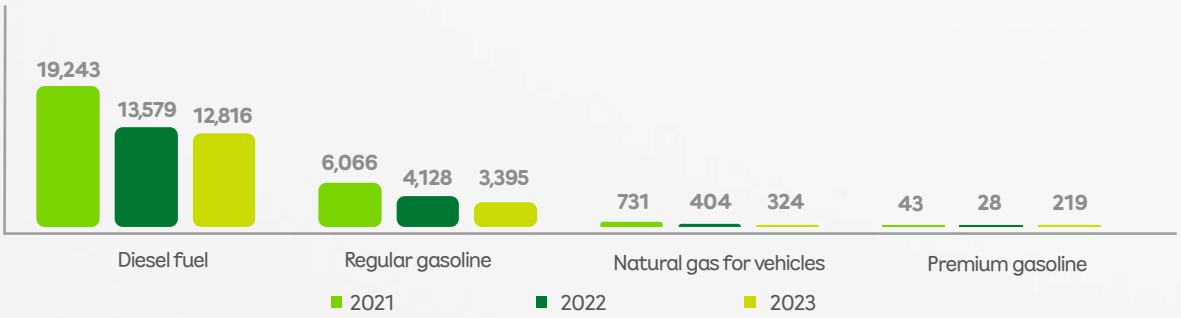
Note: energy consumption of the own vehicle fleet was 116,841 MWh (8.64 % of internal demand). Diesel fuel represents 51.19 % of consumption, followed by natural gas for vehicles (43.62 %).

The activity that requires the most fuel consumption form Grupo EPM's vehicle fleet is waste collection for providing the sanitation service: Emvarias used 99.31 % of natural gas and 44.44 % of diesel fuel.

The second company that most diesel fuel requires is EPM (21.43 %), followed by Aguas Nacionales that used 6.66 % for operating dump trucks and distributing produced biosolid.

Delsur acquired 37 new vehicles in 2023 to improve the fleet and the fuel consumption efficiency.

Energy consumption of own fleet and stationary equipment EPM (MWh)



Source: *Idsos application.*

Note: EPM's energy consumption for own vehicle fleet decreased 7.64% compared to the previous year. The total consumption was 16,754 MWh (1.98 % of internal energy demand). Diesel fuel represents 76.50 %, followed by regular gasoline (20.26 %).

Variations in energy consumption in the vehicle fleet are related to the increase of electric vehicle use and the projects and transportation needs of the personnel due to own organizational dynamics.

External energy consumption

Energy consumption in hired fleet - Grupo EPM (MWh)

Fuel	2021	2022	2023
Diesel fuel	10,999	8,083	**8,027**
Regular gasoline	369	129	**1,918**
Premium gasoline	N.D.	N.D.	**89**
Natural gas for vehicles	184	148	**69**
Total	**11,552**	**8,360**	**10,103**

Source: *Idsos application.*

External energy demand is calculated based on the fuels used by the vehicle fleet hired by Grupo EPM. In 2023 consumption was of 10,103 MWh, which is equal to 0.74 % of the total energy demand. Diesel fuel accounts for 80.16 %.

Energy consumption in hired fleet - EPM (MWh)

Fuel	2021	2022	2023
Diesel fuel	7,986	6,826	**4,970**
Natural gas for vehicles	193	134	**0**
Regular gasoline	188	0	**426**
Premium gasoline	0	0	**89**
Total	**8,366**	**6,960**	**5,485**

Source: *Idsos application.*

Energy consumption of the vehicle fleet hired by EPM decreased in 21.19 %. Diesel fuel accounts for 90.61 % of consumption.

In the transportation contracts for moving personnel to the construction projects, the specification sheets require that the vehicles be operated with diesel fuel.

Contents of GRI standards and corporate indicators

Content GRI 302-1	Energy consumption within the organization
Content GRI 302-2	Energy consumption outside of the organization
Content GRI 302-3	Energy intensity
Content GRI 302-4	Reduction of energy consumption
Content GRI 302-5	Reductions in energy requirements of products and services
EPM-29	Business environmental management index – IGAE

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Hidroecológica del Teribe - HET
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Risaralda
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - El Caribe

- Chile
- El Salvador
- Guatemala
- Panamá
- México

Businesses

- Water
- Sanitation
- Waste
- Electricity
- Gas

‹ Back to content

Sustainability Report 2023

Waste management

Grupo·epm

Waste management

Comprehensive waste management includes actions for prevention in its generation, reduction, valuation, use, treatment and disposal.

Grupo EPM classifies waste in recyclable, biodegradable, ordinary and inert, special and hazardous.

The Grupo EPM companies implement and update their comprehensive management plans that include reducing generation, setting agreements to increase use, researching alternative waste management processes for waste that currently ends up in the landfill, identifying the right treatment for each type of hazardous waste and executing the events of training and education to contribute to its proper handling. They also join programs led by other institutions in each country or locality to collect certain waste produced by Grupo EPM people, customers, users and other interest groups

Management in 2023

Grupo EPM increased the amount of recovered waste, compared to the amount of generated waste in 2023.

In EPM Guatemala there was a del 43 % reduction of hazardous waste, due to the removal of equipment with PCB that was carried out in 2023.

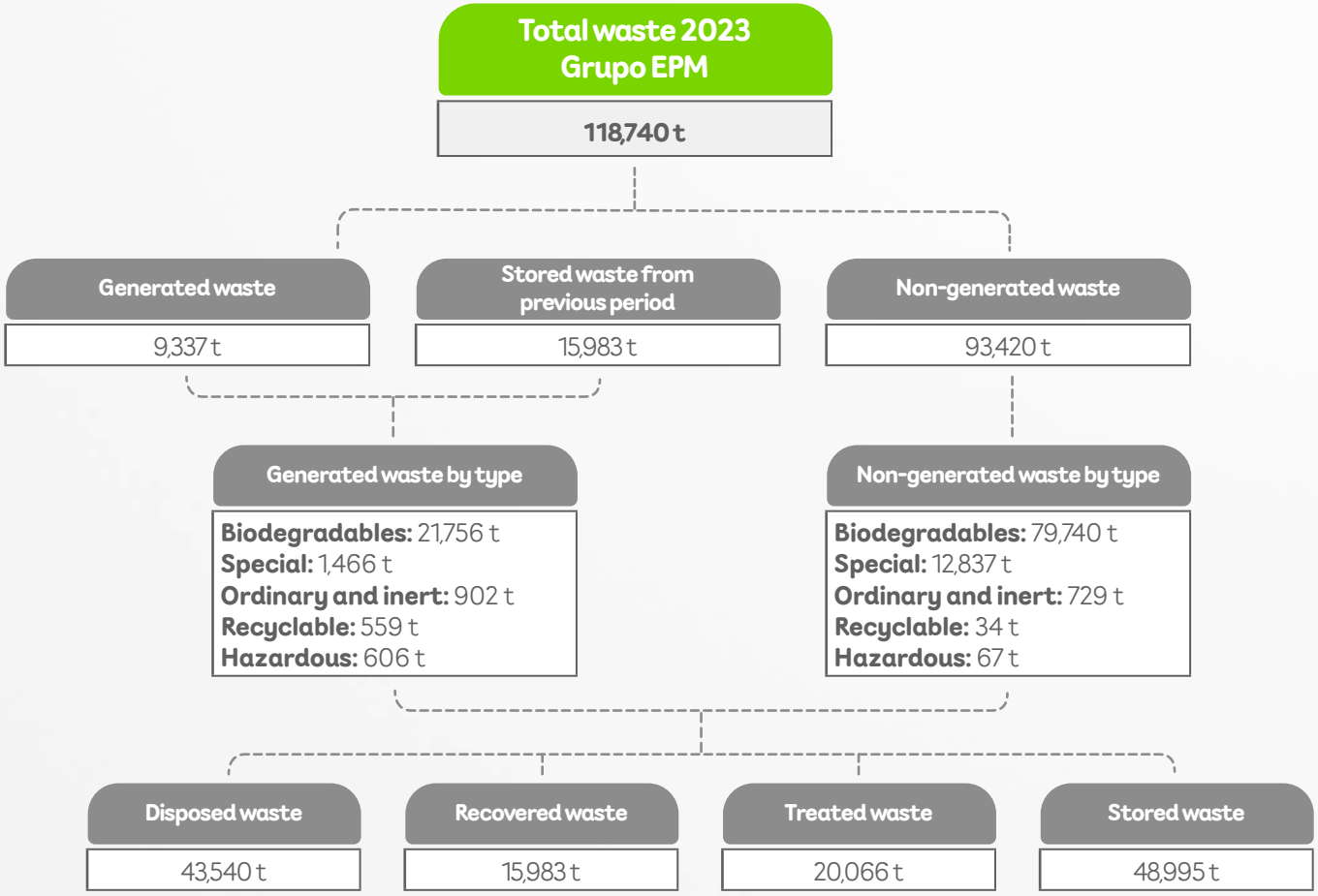
In 2023, EPM's gas business handled a larger amount of debris generated by the holes that are needed for installing gas networks. 50% of this debris was reused to fill those holes once again. The final amount of debris supplied for final disposal also decreased.

Grupo EPM generated 72,912 t of waste in 2023, which excludes 13 t stored at the end of 2022. 59.85 % corresponds to biodegradable waste, followed by special waste (16.87 %).

Waste generated and managed by Hidroituango is analyzed separately.

The companies of Grupo EPM continued implementing several actions to manage waste:

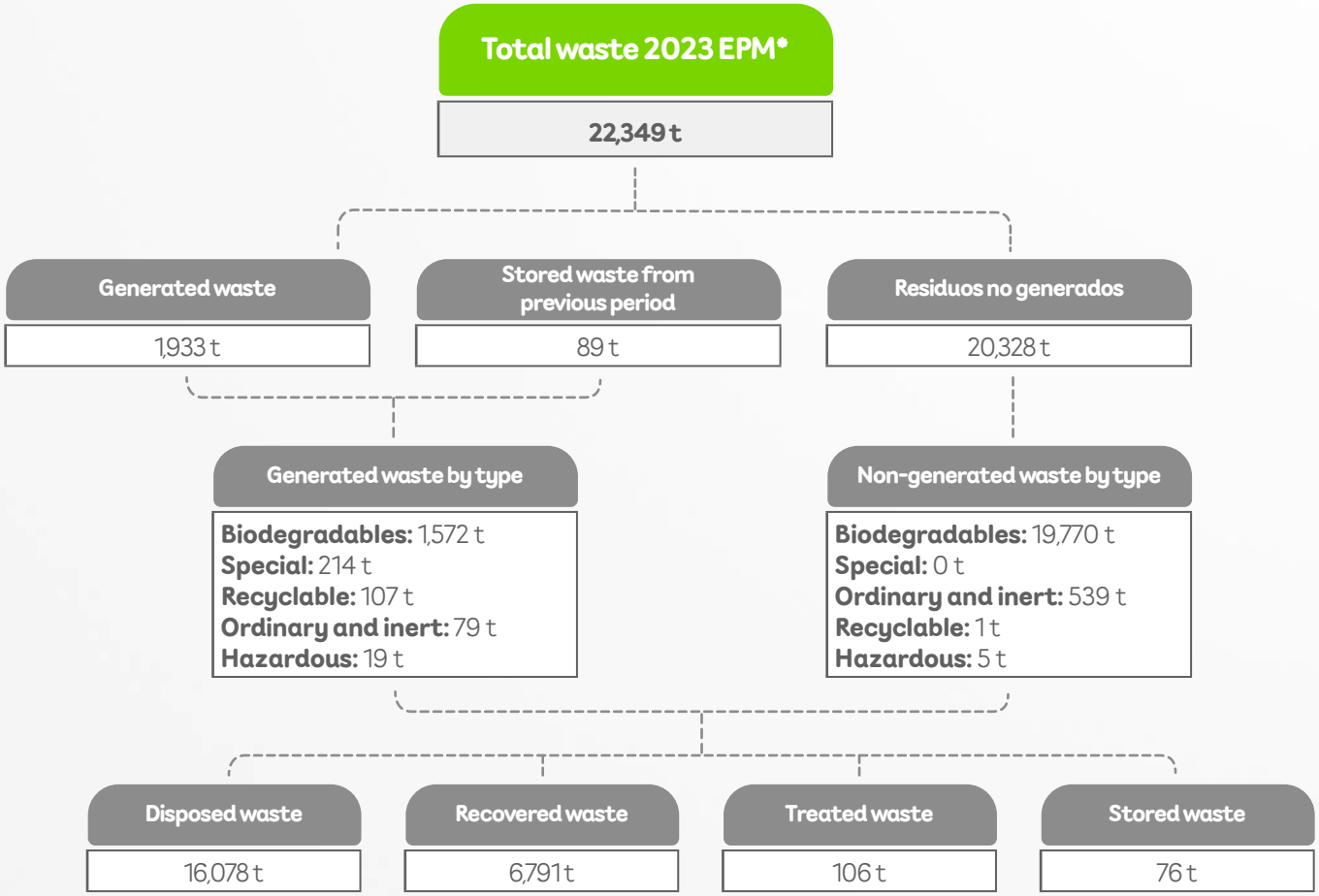
In EPM Guatemala, new measures for managing waste were implemented, which helped characterize this waste in an environmentally friendly way, reducing as much as possible those considered as non-biodegradable. These measures helped reduce biodegradable waste in 13 %, as a result of preventive maintenance, hole openings and emergency work that were performed in the wooded areas near the power lines, which helped improve records and controls. que se realizaron a la cobertura boscosa cercana a las líneas, acciones que conllevan a mejoras en los registros y controles.



Source: *Idsos application*

Note: non-generated waste refers to waste that is managed by Grupo EPM but was not generated directly by it (such as the case of floating solid waste in reservoirs, invasive aquatic plants, or waste that is collected in the entrance grille to sewage treatment plants).

Grupo EPM managed 93,420 t of waste that accumulated in the reservoirs or in the entrance grilles to sewage treatment plants.



Source: *Idsos application.*

Note: non-generated waste refers to waste that is managed by Grupo EPM but was not generated directly by it (such as the case of floating solid waste in reservoirs, invasive aquatic plants, or waste that is collected in the entrance grille to sewage treatment plants).

*It does not include what was generated and managed in the Ituango Project.

Biodegradable waste constitutes 78.95 % of the waste generated by EPM.

Waste generated by Grupo EPM (t)

Type of waste	2021	2022	2023
Biodegradable	31,973	52,049	**21,756**
Special	30,919	15,403	**1,466**
Ordinary and inert	10,191	10,499	**902**
Non-hazardous recyclable	3,508	3,770	**559**
Hazardous	1,096	880	**606**
Total	**77,686**	**82,601**	**25,289**

Source: *Idsos application*

Generated waste includes what was not used, treated or disposed of at the end of 2022 and therefore, remained stored for its handling in 2023.

EPM Guatemala carried out the program "forest inventory" during 2022, which required more felling and pruning than in previous years.

Generated waste EPM* (t)

Type of waste	2021	2022	2023
Biodegradable	13,665	13,898	**1,572**
Special	12,158	12,454	**214**
Non-hazardous recyclable	1,068	1,137	**107**
Ordinary and inert	381	413	**79**
Hazardous	183	173	**19**
Total	**27,454**	**28,075**	**1,991**

Source: *Idsos application.*

Note: *It does not include the waste that is generated or managed in the Ituango Project.

Both in EPM and in the Group, waste generation decreased considerably during 2023, compared to what was reported in 2022. This was mainly due to adjustments performed when classifying the waste generated and not generated by each company. This improvement on waste classification is a consequence of perfecting the waste management performed on site.

Waste management in Grupo EPM (t)

Management	2021	2022	2023
Final disposition	41,079	60,048	**43,540**
Recovery	44,539	52,795	**20,066**
Treatment	5,279	242	**1,982**
Storage	282	86	**48,992**
Total	**91,179**	**113,171**	**114,580**

Source: *Idsos application.*

Note: recovery includes reuse, recycling and composting. Treatment includes incineration. Final disposition refers to waste that is taken to the landfill or dump.

Waste management in EPM* (t)

Management	2021	2022	2023
Final disposition	24,541	22,058	**16,078**
Recovery	15,843	16,419	**6,791**
Storage	70	76	**106**
Treatment	69	65	**76**
Total	**40,524**	**38,618**	**23,051**

Source: *Idsos application*

Note: recovery includes reuse, recycling and composting. Treatment includes incineration. Final disposition refers to waste that is taken to the landfill or dump.

*It does not include the waste that is generated or managed in the Ituango Project.

EPM's anual goal (period 2021-2023):

Waste to be disposed ≤ 55 % of generated waste
Used waste ≥ 45 % of generated waste

2023 Outcomes:

Waste disposed by EPM = 16,078 t, that is equivalent to 69.75 % of generated waste.
Waste used by EPM = 6,791 t, that is equivalent tol 29.46 % of generated waste.

These goals were not achieved in 2023.

Waste management in Ituango (t) hydroelectric project

Type of waste	2021	2022	2023
Waste not generated by the project, but managed by it	11,567	76,022	**42,028**
Stored waste from previous period	69,178	23,976	**15,882**
Waste generated by the project	56,582	419	**86**
Total	**137,328**	**100,417**	**57,996**

Source: *Idsos application.*

As the construction has slowed down and the sediments in the reservoir have settled down, the amount of waste has diminished considerably, not only those not generated, yet managed by the project, but those that the construction has generated.

Management of hazardous waste generated and non-generated by EPM* (t)

Type of waste	2021	2022	2023
Recovered	118	109	0
Treated	65	65	74
Disposed of	0	1	0
Stored	3	1	27
Total	186	176	101

Source: *Idsos application.*

Note: this table includes all the hazardous waste managed by EPM, regardless of who generated it: the Organization or others.

*Does not include the waste that is generated or managed by the Ituango project.

Hazardous waste recovery has decreased considerably, specifically in EPM and the Group's national subsidiaries, because of changes in the regulations that promote a better treatment (final disposition) of waste, than because of its recovery, particularly when it refers to dielectric oils that are mainly used in transformers.

EPM's anual goal (período 2021-2023):

Managed hazardous waste ≤ 1.3% total managed waste.

2023 Outcomes:

Hazardous waste managed by EPM = 102 t, that are equivalent to 0.44 % of the total amount.

These goals were not achieved in 2023.

Contents of GRI standards and corporate indicators

Content GRI 306-2	Management of significant waste-related impacts
Content GRI 306-4	Waste diverted from disposal
EPM-29	Business environmental management index – IGAE

Scope and coverage

Companies

- Empresas Públicas de Medellín - EPM
- Aguas Regionales EPM
- Aguas Nacionales EPM
- Aguas del Oriente
- Aguas de Malambo
- Empresas Varias de Medellín - Emvarias
- Central Hidroeléctrica de Caldas - CHEC
- Electrificadora de Santander - ESSA
- Empresa de Energía del Quindío - EDEQ
- Distribuidora de Electricidad del Sur - Delsur
- Centrales Eléctricas del Norte de Santander - CENS
- Afinia
- Distribuidora de Electricidad del Sur - Delsur
- EPM Guatemala
- Tecnología Intercontinental -Ticsa
- Hidroecológica del Teribe - HET
- Elektra Noreste - ENSA
- Aguas de Antofagasta - Adasa

Geography

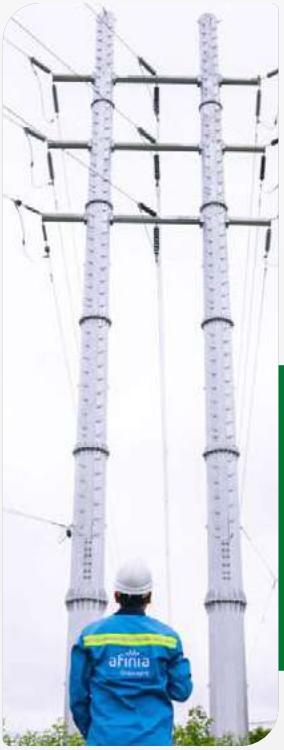
- Colombia – Antioquia
- Colombia – Caldas
- Colombia – Quindío
- Colombia – Santander
- Colombia - Norte de Santander
- Colombia - Malambo, Atlántico
- Colombia - El Caribe

- Chile
- El Salvador
- Guatemala
- México
- Panamá

Businesses

- Water
- Sanitation
- Electricity
- Gas
- Waste

Sustainability Report 2023



Financial management

‹ Back to content

‹ Back to content

Sustainability Report 2023

EPM's financial management

Grupo·epm

Table of contents

EPM's financial management

p.

Note 1. Reporting entity 1072

Note 2. Significant accounting policies 1077

Note 3. Significant accounting judgments, estimates and causes of uncertainty in the preparation of the financial statements 1135

Note 4. Significant transactions carried out and other relevant aspects that occurred during the period 1142

Note 5. Property, plant and equipment, net 1145

Note 6. Investment property 1156

Note 7. Goodwill and other intangible assets 1157

Note 8. Investments in subsidiaries 1160

Note 9. Investments in associate 1166

Note 10. Investments in joint ventures 1167

Note 11. Impairment of non-financial assets 1168

Note 12. Trade and other receivables 1171

Note 13. Other financial assets 1177

Note 14. Right-of-use assets 1180

Note 15. Guarantee 1185

Note 16. Other assets 1186

Note 17. Inventories 1187

Note 18. Cash and cash equivalents 1187

Note 19. Equity 1190

Note 20. Accumulated other comprehensive income 1193

Note 21. Loans and borrowings 1197

Note 22. Trade and other payables 1202

Table of contents

p.

Note 23. Other financial liabilities 1203

Note 24. Derivatives and hedges 1205

Note 25. Employee benefits 1209

Note.26 Taxes, contributions and rates payable 1217

Note 27. Provisions 1218

Note 28. Other liabilities 1241

Note 29. Changes in liabilities from financing activities 1243

Note 30. Ordinary activities revenue 1244

Note 31. Other income 1246

Note 32. Income from sale of assets 1247

Note 33. Costs of services rendered 1247

Note 34. Administrative expenses 1248

Note 35. Other expenses 1250

Note 36. Finance income and expenses 1250

Nota 37. Net foreign exchange difference 1252

Note 38. Share of result of equity investments 1253

Note 39. Income tax 1254

Note. 40 Disclosure of related parties 1268

Note 41. Capital management 1270

Note 42. Financial risk management objectives and policies 1272

Note 43. Fair value measurement on a recurring and non-recurring basis 1287

Note 44. Service concession arrangement 1292

Note 45. Events after the reporting period 1294

Empresas Públicas de Medellín E.S.P.

Annual separate financial statements

Under Accounting Standards and Financial Information Accepted in Colombia (NCIF)

December 31, 2023 and 2022

Grupo·epm

EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P.

SEPARATE STATEMENT OF FINANCIAL POSITION

As of December 31, 2023 and 2022

Figures expressed in millions of Colombian pesos

	Notes	2023	2022
Assets			
Non-Current Assets			
Property, plant and equipment, net	5	34.034.084	31.439.635
Investment property	6	179.149	169.288
Goodwill	7	260.950	260.950
Other intangible assets	7	728.484	617.800
Right-of-use assets	14	2.449.432	2.320.213
Investments in subsidiaries	8	12.007.858	12.264.415
Investments in associates	9	1.670.971	1.373.449
Investments in joint ventures	10	99	99
Trade and other receivables	12	2.061.131	1.462.492
Other financial assets	13	2.300.744	2.990.535
Other assets	16	139.587	108.525
Cash and cash equivalents (restricted)	18	40.591	56.615
Total non-current assets		**55.873.080**	**53.064.016**
Current assets			
Inventories	17	204.322	195.617
Trade and other receivables	12	4.433.696	3.300.166
Current tax assets	39	459.336	340.687
Other financial assets	13	110.605	382.396
Other assets	16	188.667	158.486
Cash and cash equivalents	18	1.430.239	2.027.834
Total current assets		**6.826.865**	**6.405.186**
Total assets		**62.699.945**	**59.469.202**
Liabilities and Equity			
Equity			
Issued capital		67	67
Reserves	19	1.070.645	1.459.906
Accumulated other comprehensive income	20	2.073.289	3.851.230
Retained earnings	19	22.487.773	20.814.391
Net profit for the period	19	3.765.281	3.035.956
Other components of equity		55.508	64.305
Total equity		**29.452.563**	**29.225.855**

EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P.

SEPARATE STATEMENT OF FINANCIAL POSITION

As of December 31, 2023 and 2022

Figures expressed in millions of Colombian pesos

	Notes	2023	2022
Liabilities			
Non-current liabilities			
Loans and borrowings	21 and 41	17.177.083	19.120.702
Trade and other payables	22	9.345	8.093
Other financial liabilities	23	3.997.950	2.808.878
Employee benefits	25	409.130	285.502
Income tax payable	39	29.980	29.980
Deferred tax liabilities	39	2.384.073	1.982.785
Provisions	27	1.777.068	712.137
Other liabilities	28	30.634	31.741
Total non-current liabilities		**25.815.263**	**24.979.818**
Current liabilities			
Loans and borrowings	21 and 41	2.908.001	1.324.693
Trade and other payables	22	1.906.736	1.565.937
Other financial liabilities	23	561.884	536.815
Employee benefits	25	249.536	209.035
Income tax payable	39	26.047	26.047
Taxes, contributions and rates payable	26	275.357	259.252
Provisions	27	289.406	439.283
Other liabilities	28	1.215.152	902.467
Total current liabilities		**7.432.119**	**5.263.529**
Total liabilities		**33.247.382**	**30.243.347**
Total liabilities and equity		**62.699.945**	**59.469.202**

The accompanying notes are an integral part of the Separated Financial Statements

John Alberto Maya Salazar
General Manager
Certification attached

Diana Rúa Jaramillo
Executive Vice-President of Finan and Investments

John Jaime Rodríguez Sosa
Director of Accounting and cost
Professional Card N° 144842-T
Certification attached

EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P.

SEPARATE STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the years ended December 31, 2023 and 2022

Figures expressed in millions of Colombian pesos

	Notes	2023	2022
Rendering of services	30	16.009.742	13.121.382
Leases	30	80.463	80.063
Sale of goods	30	12.755	9.043
Ordinary activities revenue		**16.102.960**	**13.210.488**
Income from sale of assets	32	1.718	613
Other income	31	123.055	253.346
Total revenue		**16.227.733**	**13.464.447**
Costs of services rendered	33	(8.846.660)	(7.098.482)
Administrative expenses	34	(2.130.943)	(1.219.985)
Net impairment loss on accounts receivable	12	(138.152)	(215.877)
Other expenses	35	(50.085)	(40.666)
Finance income	36,1	631.613	267.633
Finance expenses	36,2	(2.671.439)	(1.777.638)
Net foreign exchange difference	37	184.023	(90.580)
Equity method in subsidiaries	8	1.555.779	1.600.935
Share of results of equity investments	38	198.430	(975.812)
Profit for the period before taxes		**4.960.299**	**3.913.975**
Income tax	39	(1.195.018)	(878.019)
Profit for the period after taxes		**3.765.281**	**3.035.956**
Net profit for the period		**3.765.281**	**3.035.956**
Other comprehensive income			
Items that will not be reclassified to profit or loss:			
Remeasurement of defined benefit plans	20 and 39	(99.482)	52.230
Equity investments measured at fair value through equity	20 and 39	(539.451)	(136.838)
Equity method in subsidiaries - NRRP	20 and 39	(418.621)	(67.399)
Income tax related to components that will not be reclassified	20 and 39	118.503	(290.514)
		(939.051)	**(442.521)**
Items that will be reclassified subsequently to profit or loss:			
Cash flow hedges:	20 and 39	**448.394**	**(596.324)**
Reclassified to profit or loss for the period		(2.095.091)	328.945
Reclassification Adjustment		2.543.485	(925.269)
Equity method in subsidiaries	20 and 39	**(1.301.438)**	**1.010.644**
Result recognized in the period		(1.301.438)	1.010.644
Hedges of net investments in foreign operations	20 and 39	**283.752**	**(216.145)**
Result recognized in the period of Hedges of net investments in foreign businesses		283.752	(216.145)
Income tax related to the components that may be reclassified	20 and 39	**(251.334)**	**288.328**
Result recognized in the period		369.746	(91.580)
Reclassification adjustment		(621.080)	379.908
		(820.626)	**486.504**
Other comprehensive income for the period, net of taxes	**39**	**(1.759.677)**	**43.982**
Total comprehensive income for the period		**2.005.605**	**3.079.938**

The accompanying notes are an integral part of the Separated Financial Statements

John Alberto Maya Salazar
Gerente General
Adjunto certificación

Diana Rúa Jaramillo
Vicepresidente Ejecutiva Finanzas e Inversiones

John Jaime Rodríguez Sosa
Director Contabilidad y Costos
T.P. 144842-T
Adjunto certificación

IPRESAS PÚBLICAS DE MEDELLÍN E.S.P.

EPARATE STATEMENTS OF CHANGES IN EQUITY

r the years ended December 31, 2023 and 2022

gures expressed in millions of Colombian pesos

					Other comprehensive income						
	Issued capital	Reserves (note 19)	Retained earnings (note 19)	Other components of equity	Equity investments (note 20)	Defined benefit plans (note 20)	Cash flow hedges (note 20)	Hedges of net investments in foreign operations (note 20)	Reclassification of property, plant and equipment to investment property (note 20)	Accumulated share in other comprehensive income of associates and joint ventures business (note 20)	Total
lance at January 1, 2022	67	1.552.992	22.576.829	64.341	3.037.953	2.144	(343.034)	(61.509)	12.079	1.215.372	28.057.234
t profit for the period	-	-	3.035.956	-	-	-	-	-	-	-	3.035.956
her comprehensive income of the period, net of income tax	-	-	-	-	(407.312)	32.191	(307.996)	(216.145)	-	943.244	43.982
mprehensive income for the period	**-**	**-**	**3.035.956**	**-**	**(407.312)**	**32.191**	**(307.996)**	**(216.145)**	**-**	**943.244**	**3.079.938**
rpluses or dividends decreed	-	-	(1.850.776)	-	-	-	-	-	-	-	(1.850.776)
vement of reserves	-	(93.086)	93.086	-	-	-	-	-	-	-	-
ansfers to retained earnings	-	-	(4.748)	(35)	-	-	-	-	-	(55.757)	(60.540)
lance at December 31, 2022	67	1.459.906	23.850.347	64.305	2.630.641	34.335	(651.030)	(277.654)	12.079	2.102.859	29.225.855
lance at January 1, 2023	67	1.459.906	23.850.347	64.305	2.630.641	34.335	(651.030)	(277.654)	12.079	2.102.859	29.225.855
t profit for the period	-	-	3.765.281	-	-	-	-	-	-	-	3.765.281
her comprehensive income of the period, net of income tax	-	-	-	-	(456.790)	(63.640)	197.060	283.752	-	(1.720.059)	(1.759.677)
mprehensive income for the period	**-**	**-**	**3.765.281**	**-**	**(456.790)**	**(63.640)**	**197.060**	**283.752**	**-**	**(1.720.059)**	**2.005.604**
rpluses or dividends decreed	-	-	(1.748.005)	-	-	-	-	-	-	-	(1.748.005)
vement of reserves	-	(389.261)	389.261	-	-	-	-	-	-	-	-
uity method on variations in equity	-	-	(3.830)	(8.797)	-	-	-	-	-	(18.264)	(30.891)
lance at December 31, 2023	67	1.070.645	26.253.054	55.508	2.173.851	(29.305)	(453.970)	6.098	12.079	364.536	29.452.563

e accompanying notes are an integral part of the Separated Financial Statements

John Alberto Maya Salazar
Gerente General
Adjunto certificación

Diana Rúa Jaramillo
Vicepresidente Ejecutiva Finanzas e Inversiones

John Jaime Rodríguez Sosa
Director Contabilidad y Costos
T.P. 144842-T
Adjunto certificación

EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P.

SEPARATE STATEMENTS OF CASH FLOWS

For the years ended December 31, 2022 and 2021
Figures expressed in millions of Colombian pesos

	Notes	2023	2022
Cash flows from operating activities:			
Net result for the period		3.765.281	3.035.956
Adjustments to reconcile the net profit for the period to the net cash flows used in operating activities:		3.232.324	2.902.928
Depreciation and amortization of property, plant and equipment, right-of-use assets and intangible assets	33 and 34	951.023	706.841
Net impairment loss on accounts receivable	12	138.152	215.877
Impairment of investments in associates and joint ventures	11	-	1.060.968
Write-down of inventories, net	35	134	115
Result due to foreign exchange difference	37	(184.023)	90.580
Result due to valuation of investment property	6	(9.863)	(17.122)
Result for valuation of financial instruments and hedge accounting	36	(253.078)	13.254
Result of compensation for activities associated with investment flows		(94)	-
Provisions, post-employment and long-term defined benefit plans	34	894.410	233.281
Provisions for tax, insurance and reinsurance obligations and financial updating	36,2	104.750	79.211
Applied Government subventions	31	(47)	(78)
Deferred income tax	39,3	268.457	(20.595)
Current income tax	39,3	926.561	898.614
Share of loss of equity-accounted investees	8	(1.555.779)	(1.600.935)
Interest and yield income	36,1	(207.072)	(181.419)
Interest and commission expenses	36,2	2.395.225	1.598.960
Result due to disposal of property, plant and equipment, right-of-use assets, intangibles and investment property	32 and 35	78	(439)
Result from withdrawal of property, plant and equipment, right of use assets, intangible assets and investments	32 and 35	12.834	10.292
Resultado por disposición de activos no corrientes mantenidos para la venta y otros activos		-	-
Result from disposal of financial instruments		19	-
Result from disposal of investments in subsidiaries		(20.289)	-
Non-cash recoveries	31	(50.914)	(99.321)
Dividend income from investments	10 and 13	(178.160)	(85.156)
		6.997.605	5.938.884
Net changes in operating assets and liabilities:			
Change in inventories		(8.506)	(12.778)
Change in trade and other receivables		(1.721.511)	(1.019.299)
Change in other assets		233.721	(420.467)
Change in creditors and other accounts payable		403.671	75.833
Change in employee benefits		35.336	11.525
Change in provisions		(309.751)	(353.605)
Change in other liabilities		23.953	1.016.586
Cash generated from operating activities		5.654.518	5.236.679
Interest paid		(2.434.079)	(1.651.703)
Income tax paid		(1.045.210)	(917.495)
Income tax refund		-	690
Net cash provided by operating activities		2.175.229	2.668.171
Cash flows from investing activities:			
Acquisition and capitalization of subsidiaries or businesses	8	(902.043)	(4.757)
Purchase of property, plant and equipment	5	(3.112.979)	(3.425.307)
Disposal of property, plant and equipment	5 and 32	478	840
Purchase of intangible assets	7	(83.107)	(79.834)
Disposal of intangible assets		4	1
Disposal of investment properties	6	-	175
Purchase of investments in financial assets	13	(212.600)	(160.088)
Disposal of investments in financial assets	13	473.753	351.682
Dividends received from associates and joint ventures	8 and 9	452.526	502.839
Other dividends received	13	178.175	76.973
Loans to related parties		155.305	223.022
Compensation received for activities associated with investment flows	5	-	2.521.064
Other cash flows from investment activities		5.577	(2.894)
Net cash flow used in investing activities		(3.044.911)	3.716
Cash from financing activities:			
Proceeds from loans and borrowings	21	3.038.546	1.706.272
Repayments of loans and borrowings	21	(980.928)	(2.079.859)
Transaction costs due to issuance of debt instruments	21	(18.381)	(26.657)
Payments of liabilities for financial leasing	23	(15.546)	(14.252)
Surpluses paid	19	(1.748.005)	(1.850.775)
Capital subventions	31	47	78
Payments of capital of derivatives designated as cash flow hedges	13	-	37.239
Payment of pension bonds	23	(43.278)	(57.329)
Other cash from financing activities		(3.260)	1.504
Net cash flows used in financing activities		229.195	(2.283.779)
Net increase in cash and cash equivalents		(640.487)	388.108
Effects of variations in foreign exchange rates in the cash and cash equivalents		26.867	(101.746)
Cash and cash equivalents at beginning of the period		2.084.449	1.798.087
Cash and cash equivalents at end of the year	18	1.470.830	2.084.449
Restricted cash	18	121.701	97.542

The accompanying notes are an integral part of the Separated Financial Statements

John Alberto Maya Salazar
Gerente General
Adjunto certificación

Diana Rúa Jaramillo
Vicepresidente Ejecutiva Finanzas e Inversiones

John Jaime Rodríguez Sosa
Director Contabilidad y Costos
T.P. 144842-T
Adjunto certificación

Notes to the separate financial statements

Of Empresas Públicas de Medellín E.S.P.

for the periods ended December 31, 2023 and 2022.

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

Note 1.

Reporting entity

Empresas Públicas de Medellín E.S.P. (hereinafter "EPM") is the parent company of a multi-Latin business group established of 44 companies and 6 structured entities[1]; with presence in the provision of public services in Colombia, Chile, El Salvador, Guatemala, Mexico and Panama.

EPM is a decentralized entity of the municipal order, created in Colombia through Agreement 58 of August 6, 1955 of the Administrative Council of Medellín, as an autonomous public establishment. It was transformed into an industrial and commercial company of the State of the municipal order, by Agreement 069 of December 10, 1997 of the Council of Medellín. Due to its legal nature, EPM is endowed with administrative, financial autonomy and its own equity, in accordance with Article 85 of Law 489 of 1998. The capital with which it was constituted and operates, as well as its equity, is public nature, its sole owner being the Municipality of Medellín. Its main address is at Carrera 58 No. 42-125 in Medellín, Colombia. It does not have an established term of duration.

EPM provides residential public services of aqueduct, sewage, energy, and distribution of fuel gas. It can also provide the residential public services of cleaning, treatment, and use of garbage, as well as the complementary activities of one of these public services.

EPM offers its services through the following operating segments: Electricity Generation, Distribution and Transmission; Distribution and Marketing of Natural Gas; Water provision; Wastewater Management;

[1] *Autonomous Assets of Social Financing of EPM (until November), CHEC, EDEQ, ESSA, CENS, Credieegsa S.A. and Somos, under International Financial Reporting Standards (IFRS) adopted in Colombia, are considered structured entities that are part of the scope of the consolidation of financial statements of the EPM Group.*

Solid Waste Management. Additionally, the Others Segment includes the participation in the telecommunications business, through the associate UNE EPM Telecomunicaciones S.A. and its subsidiaries: Edatel S.A. E.S.P., Orbitel Servicios Internacionales S.A. - OSI, Cinco Telecom Corporation - CTC and Colombia Móvil S.A.; and the associate Inversiones Telco S.A.S. and its subsidiary Emtelco S.A.; offering voice, data, Internet, professional services, data center, among others.

EPM's separate financial statements for the year ended December 31, 2023, were authorized by the Board of Directors for their publication on March 20, 2024.

1.1. Legal and regulatory framework

La prestación de servicios públicos domiciliarios en Colombia está regulada The provision of residential public services in Colombia is mainly regulated by Law 142 of 1994, Public Services Law, and Law 143 of 1994, Electricity Law.

- The functions of control, inspection and surveillance of the entities that provide residential public services are exercised by the Superintendence of Residential Public Services (SSPD).
- Because it is an issuer of Bonds, EPM is subject to the control of the Financial Superintendence of Colombia under Decree 2555 of 2010, by which the regulations regarding the financial, insurance and stock market sectors are collected and reissued, and other provisions are issued, it establishes that the SIMEV is the set of human, technical and management resources that the Financial Superintendence of Colombia will use to allow and facilitate the supply of information to the market. Among these tools is the National Registry of Securities and Issuers - RNVE, whose purpose is to keep a record of issuers of securities and the issues they make. When issuing bonds, EPM is subject to the control of this Superintendency and to the regulations that are requested for financial information purposes for its issuance, especially External Circular 038 of 2015 whose reference is: Modification of the terms for the transmission of the Interim Quarterly

and Year-End Financial Statements under IFRS adopted in Colombia, Individual or Separate and Consolidated and its report in XBRL language (extensible Business Reporting Language) and which was modified by External Circulars 008, 017 and 037 of 2016; Additionally, External Circulars 031 of 2021 on social and environmental issues, including climate issues and 012 of 2022 on periodic information, in development of Decree 151 of 2021.

For accounting purposes, EPM is governed by the accounting standards issued by the National Accounting Office, these standards are based on the IFRS issued by the IASB, as well as the interpretations issued by the IFRIC, as described in the accounting policies section.

For administering the health service as employee benefits, the figure of the Adapted Health Company, is supervised by the National Health Superintendence.

As a decentralized municipal entity, EPM is subject to the political control of the Administrative Council of Medellin, the fiscal control of the Medellin General Comptroller's Office, and the disciplinary control of the Office of the Attorney General of the Nation.

1.2. Regulation commisions

Law 142 of 1994, in its articles 68 and 69, delegates to the regulation commissions the presidential function of establishing general policies for administration and control of efficiency in residential public services.

These entities are the following:

- The Energy and Gas Regulation Commission (CREG), a technical body attached to the Ministry of Mines and Energy (MME), which regulates energy sales rates and aspects related to the operation of the Wholesale Energy Market (MEM) and, more in general, with the provision of electricity, gas and liquid fuel services.

- The Commission for the Regulation of Drinking Water and Basic Sanitation (CRA) regulates the rates of aqueduct, sewerage and cleaning and their conditions of provision in the market. It is a special administrative unit, attached to the Ministry of Housing, City and Territory.

1.2.1. Regulation by sector

1.2.1.1. Activities of the aqueduct, sewage and cleaning sector

Law 142 of 1994, Public Services Law, defined the aqueduct, sewerage and cleaning services:

Aqueduct: also called home public drinking water service. Activity that consists of the municipal distribution of water suitable for human consumption, including its connection and measurement. Includes complementary activities such as water collection and processing, treatment, storage, conduction, and transportation.

Sewage: an activity that consists of the municipal collection of waste, mainly liquid, through pipes and conduits. Includes complementary activities of transport, treatment and final disposal of such waste.

Cleaning: an activity that consists of the municipal collection of waste, mainly solid. Includes complementary activities of transport, treatment, use and final disposal of such waste.

For the first two services, the tariff framework is established in Resolutions CRA 688 of 2014, 735 of 2015, 821 of 2017 and 908 of 2019, compiled in Resolution CRA 943 of 2021. For the public sanitation service, in resolution CRA 720 of 2015, compiled in Resolution CRA 943 of 2021. These regulations establish quality and hedge indicators, encourage compliance with goals and define remuneration mechanisms to guarantee the financial sufficiency of the company.

1.2.1.2. Activities of the electricity sector

Law 143 of 1994 segmented the electric power service into four activities: generation, transmission, distribution, and commercialization, which can be developed by independent companies. The legal framework is intended to supply the demand for electricity under economic and financial viability criteria and promote an efficient, safe and reliable operation of the sector.

Generation: consists of the production of electricity from different sources (conventional or non-conventional), whether that activity is carried out exclusively or in combination with one or more other activities in the electricity sector, whichever of them is the main activity.

Transmission: the national transmission activity is the transport of energy in the National Transmission System (hereinafter STN for its initials in Spanish). It is made up of a set of lines, with their corresponding connection equipment, which operate at voltages equal to or greater than 220 kV. The National Transmitter is the legal entity that operates and transports electricity in the STN or has established a company whose purpose is the development of that activity.

Distribution: consists of transporting electrical energy through a set of lines and substations, with their associated equipment, which operate at voltages less than 220 kV.

Commercialization: an activity consisting of the purchase of electricity in the wholesale market and its sale to other market agents or to regulated and non-regulated end users, whether this activity is carried out exclusively or combined with other activities in the electricity sector, whichever is the main activity.

1.2.1.3. Activities of the natural gas sector

Law 142 of 1994 defined the legal framework for the provision of residential public services, an area in which natural gas is defined as a public service.

Gas: is the set of activities related to the distribution of fuel gas, by pipeline or other means, from a large volume storage site or from a central gas pipeline to the installation of a final consumer, including its connection and measurement. This Law will also apply to complementary commercialization activities from the production and transportation of gas through the main gas pipeline, or by other means, from the generation site to the one where it is connected to a secondary network.

Note 2.

Significant accounting policies

2.1. Basis for the preparation of financial statements

The separate financial statements of the EPM are prepared in accordance with the Accounting and Financial Information Standards accepted in Colombia (NCIF) and adopted by the General Accounting Office of the Nation through Resolution 037 of 2017, Resolution 056 of 2020 resolution 035 and 0197 of 2021 and Resolution CGN 267 of 2022 (hereinafter, IFRS adopted in Colombia). These accounting and financial reporting standards are based on the International Financial Reporting Standards (hereinafter, IFRS) issued by the International Accounting Standards Board (International Accounting standards Board, hereinafter, IASB), as well as the interpretations issued by the Interpretations Committee (hereinafter, IFRIC). These financial statements are harmonized with the generally accepted accounting principles in Colombia enshrined in the Annex to Decree 2420 of 2015 and its subsequent amendments.

The presentation of the financial statements in accordance with the 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 such estimates. Estimates and assumptions are constantly reviewed. The review of accounting estimates is recognized for the period in which they are reviewed, if the review affects that period or in the review period and future periods. The estimates made by the Administration when applying the IFRS adopted in Colombia, which have a material effect on the financial statements, and those that imply significant judgments for the annual financial statements, are described in greater detail in Note 3 Significant accounting judgments, estimates and causes of uncertainty in the preparation of the financial statements.

EPM presents separate financial statements, for compliance with control entities and for the purpose of internal administrative monitoring and providing information to investors. Similarly, EPM as the main parent presents consolidated financial statements under IFRS adopted in Colombia.

Assets and liabilities are measured at cost or amortized cost, except for certain financial assets and liabilities and 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 assets and liabilities at fair value through profit or loss, some equity investments at fair value through equity, as well as all financial derivative assets and recognized liabilities that are designated as hedged items in a fair value hedge, whose carrying amount is adjusted for changes in fair value attributed to the hedged risks.

The separate financial statements are presented in Colombian pesos and their figures are expressed in millions of Colombian pesos.

2.2. Classification of assets and liabilities as current or non-current

An asset is classified as a current asset when it is held mainly for trading purposes or is expected to be realized within a period not exceeding one year after the reporting period or is cash and cash equivalents that are not subject to restrictions on their exchange or on their use in settling a liability at least one year after the reporting period. Other assets are classified as non-current assets.

A liability is classified as a current liability when it is held mainly for trading purposes, or when it is expected to be settled within a period not exceeding one year after the reporting period, or when the EPM does not have an unconditional right to defer its settlement for at least one year after the reporting period. Other liabilities are classified as non-current liabilities.

Derivative instruments not covered by hedge accounting are classified as current or non-current, or separated into current and non-current portions, based on an assessment of facts and circumstances (i.e., the underlying contractual cash flows):

- When the EPM maintains a derivative, to which hedge accounting is not applied, for a period of more than twelve (12) months from the reporting date, the derivative is classified as non-current (or divided into portions current and non-current) to correspond to the classification of the underlying item.
- Derivative instruments that are designated as hedging instruments and that are effective are classified consistently with the classification of the underlying hedged item. The derivative instrument is divided into a current and a non-current portion only if such allocation can be made reliably.

2.3. Cash and cash equivalents

Cash and cash equivalents in the statement of financial position and in the statement of cash flows include cash on hand and in banks and highly liquid investments, easily convertible into a determined amount of cash and subject to an insignificant risk of changes in value, with a maturity of three months or less from the date of acquisition. Callable bank overdrafts that are an integral part of the EPM's cash management represent a component of cash and cash equivalents in the statement of cash flows.

2.4. Investments in subsidiaries, associates and joint ventures

A subsidiary is an entity controlled by EPM. Control is obtained when EPM controls the relevant activities of the subsidiary and is exposed, or has the right, to its variable returns and has the ability to influence said returns.

An associate is an entity over which EPM has significant influence over financial and operating policy decisions, without actually having control or joint control.

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

At the acquisition date, the excess of the acquisition cost over the portion of the net fair value of the identifiable assets, liabilities and contingent liabilities assumed by the subsidiary is recognized as goodwill. Goodwill is included in the carrying amount of the investment and is not individually amortized or tested for impairmentr.

Investments in subsidiaries are measured in the separate 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 subsequently adjusted based on changes experienced, after the acquisition, the portion of the net assets of the entity that corresponds to the investor. The result of the period of EPM includes its participation in the result of 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 ownership percentages in the subsidiary that do not imply a loss of control, the effect of these changes is recognized directly in equity. When the EPM's share of the losses of a subsidiary exceeds the EPM's share of them (which includes any long-term interest that, in substance, forms part of the company's net investment in the subsidiary), the company ceases to recognize its share of future losses. Additional losses are recognized as long as the company has entered into any legal or implicit obligation or has made payments on behalf of the subsidiary. When the subsidiary subsequently presents profits, the company resumes the recognition of its share in them only after its share in said gains equals the share in unrecognized losses.

Investments in subsidiaries are accounted for using the equity method from the date the investee becomes a subsidiary.

Investments in associates and joint ventures are maintained in separate financial statements at cost.

Dividends received from the subsidiary are recognized as a reduction in the value of the investment, and those received from the associate or joint venture are recognized directly in profit or loss for the period when the company's right to receive payment is established.

The company periodically analyzes the existence of indicators of value impairment and, if necessary, recognizes losses due to impairment in the investment in the subsidiary, associate or joint venture. Impairment losses are recognized in the result of the period and are calculated as the

difference between the recoverable value of the subsidiary, associate or joint venture, this being the higher of the value-in-use and its fair value less the necessary costs for its sale and its carrying amount.

When control of the subsidiary is lost or significant influence over the associate or joint control over the joint venture is lost, the company measures and recognizes any residual investment that it retains in it at its fair value. The difference between the carrying amount of the subsidiary, associate or joint venture and the fair value of the residual investment retained, with the value from its sale, is recognized in the result of the period.

EPM discontinues the use of the equity method from the date the investment ceases to be a subsidiary, or when the investment is classified as held for sale. Additionally, EPM records all amounts previously recognized in other comprehensive income with respect to that subsidiary on the same basis that would have been required if said subsidiary sold the financial assets or liabilities directly. Therefore, if a gain or loss previously accounted for in other comprehensive income by the subsidiary had been reclassified to profit or loss on the sale of the related assets or liabilities, EPM would reclassify the gain or loss from equity to gains or losses (as a reclassification adjustment) at the time the use of the equity method is discontinued.

2.5. Joint operations

It is a joint arrangement whereby the parties with joint control of the arrangement have rights to the assets, and obligations for the liabilities, related to the arrangement.

In joint operations, EPM recognizes its participation as follows: its assets, including its participation in the assets held jointly; its liabilities, including its share of jointly incurred liabilities; its revenue from ordinary activities from the sale of its interest in the proceeds arising from the joint operation; its participation in the revenue from ordinary activities from the sale of the product carried out by the joint operation; and your expenses, including your

share of expenses incurred jointly. EPM recognizes the assets, liabilities, revenue from ordinary activities and expenses related to its participation in a joint operation in accordance with the guidelines applicable to assets, liabilities, revenue from ordinary activities and expenses.

2.6. Functional currency and foreign currency

The functional currency of the company is the Colombian peso, which is the currency of the main economic environment in which it operates, that is, in which it generates and uses cash.

Transactions in foreign currency are initially recorded at the exchange rates of the functional currency in effect on the date of the transaction. Subsequently, monetary assets and liabilities in foreign currency are converted at the exchange rate of the functional currency, in force at the closing date of the period, non-monetary items that are measured at their fair value are converted using the exchange rates at the date on which their fair value is determined and non-monetary items that are measured at historical cost are converted using the exchange rates prevailing on the date of the original transactions.

All exchange differences are recognized in the statement of comprehensive income in the section profit or loss for the period, except for adjustments originating from interest costs that are capitalizable and those from loans in foreign currency to the extent that they are considered as adjustments of interest costs and the exchange difference originating from the conversion of the financial statements of foreign subsidiaries for the application of the equity method, which is recognized in other comprehensive income.

2.7. Revenue from ordinary activities

LRevenue from ordinary activities corresponds basically to the development of the main activity of the company, which is the provision of residential

public services of aqueduct, sewerage, energy and fuel gas distribution, and are recognized when the service is provided or at the time of the delivery of the goods, to the extent that the performance obligations on the part of the company are satisfied. Income is measured at the value of the consideration received or to be received, excluding taxes or other obligations. Discounts, client offsetting for quality of service and financial components that are granted are recorded as an adjustment to the value of income. The financing component is only recognized if the contract with clients lasts more than one year.

The most representative revenues from the energy business are as follows:

- **Reliability charge:** remuneration paid to a generating agent for the availability of generation assets with the characteristics and parameters declared for the calculation of firm energy for the reliability charge - ENFICC, which guarantees compliance with the Firm Energy Obligation - OEF that was assigned in an auction for the assignment of firm energy obligations or in the mechanism that takes its place.
- **Long-term contracts:** energy purchase and sale contract entered into between trading agents and generators that are settled on the energy exchange, under this type of energy contract, generators and traders freely agree on amounts and prices for the purchase and sale of electrical energy for periods of more than one day.

  In the case of long-term energy purchase contracts, which have prices lower than those 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 benefits, it is considered that it does not comply with the own use exception.
- **Secondary firm energy market or secondary market:** bilateral market in which the generators negotiate a support contract with each other to guarantee, during a determined period of time, the partial or total fulfillment of the firm energy obligations acquired by one of them.

- **Sale of non-regulated market energy:** It is the energy that is sold in the market to clients whose maximum demand is greater than a value in MW (megawatt for its acronym in English) or a minimum monthly energy consumption in MWh (megawatt per hora by its acronym in English), defined by the regulatory entity, by legalized installation, from which it does not use public electricity transmission networks and uses it on the same property or on contiguous properties. Your electricity purchases are made at prices freely agreed between the buyer and the seller.
- **Sale of regulated market energy:** It is the energy that is sold to clients whose monthly consumption is less than a predetermined value and is not empowered to negotiate the price they pay for it, since both concepts are established by regulation; it usually uses energy for its own consumption or as an input for its manufacturing processes and not to develop its marketing activities.
- **Automatic generation regulation - AGC:** It is a system for the control of secondary regulation, used to monitor load variations through generation, control the frequency within an operating range and scheduled exchanges. The AGC can be programmed in centralized, decentralized or hierarchical mode.
- **Firm energy:** Is the incremental contribution of a company's generation plants to the interconnected system, which is carried out with a reliability of 95% and is calculated based on a methodology approved by the Commission and on the operating planning models used in the national interconnected system.

Gas revenues come from the distribution and sale of natural gas to the regulated and non-regulated markets.

In the water business, income comes from the provision of aqueduct and sewerage services.

At the time of revenue recognition, the company evaluates based on specific criteria to identify when it acts as principal or commission agent and thus determine whether revenue should be recognized gross or net for marketing activities.

2.8. Contracts with Customers

When the results of the contract can be measured reliably, EPM recognizes the revenue and expenses associated with contracts with clients, measuring the degree of progress in the satisfaction of the performance obligations using the input method based on the proportion that the incurred costs represent for work performed to date and the estimated total costs to completion.

Incurred cost comprises costs, including borrowing costs, directly related to the contract, until the work has been completed. Administrative costs are recognized in the result of the period.

On the other hand, the incremental costs incurred by the company to obtain or fulfill contracts with clients are recognized as an asset in the statement of financial position under other assets and are amortized on a straight-line basis over the term of the contract, as long as the term of the contract is greater than one year. Otherwise, EPM recognizes it directly in the result of the period.

Payments received from the client before the corresponding work has been carried out are recognized as a liability in the statement of financial position as other liabilities.

The difference between the revenue recognized in profit or loss for the period and the invoicing is presented as an asset in the statement of financial position called Trade and other receivable, or as a liability called other liabilities.

In the initial recognition of an account receivable from a contract with a client, the difference that occurs between the measurement of the account receivable and the value of the corresponding income is presented as an expense in the statement of comprehensive income called Impairment of accounts receivable.

2.9. Government grants

Government grants are recognized at fair value when there is reasonable assurance that they will be received and all conditions attached to them will be met. Grants intended to offset costs and expenses, already incurred, without related subsequent costs, are recognized in profit or loss for the period in which they become payable. When the grant is related to an asset, it is recorded as deferred income and is recognized in the result of the period on a systematic basis throughout the estimated useful life of the corresponding asset. The benefit of a government loan at a below-market interest rate is treated as a government subsidy, measured as the difference between the amounts received and the fair value of the loan based on the market interest rate.

2.10. Taxes

The country's tax structure, the regulatory framework and the plurality of operations make the company a passive subject of taxes, rates and contributions of the national and territorial order. They are obligations that originate to the Nation, departments, municipal entities and other active subjects, once the conditions provided in the corresponding regulations issued are met.

Among the most relevant taxes are the income tax and the sales tax.

Income tax

- **Current:** current assets and liabilities for income tax for the period are measured by the values that are expected to be recovered or paid to the tax authority. The expense for income tax is recognized in the current tax according to the depuration carried out between the tax income and the accounting profit or loss affected by the income tax rate of the current year and in accordance with the provisions of the

tax regulations from the country. The tax rates and regulations used to compute such values are those that are enacted or substantially approved at the end of the reporting period, in the country in which the company operates and generates taxable profits.

Taxable profit differs from the profit reported in profit or loss due to items of income and expenses that are taxable or deductible in other years, and items that will 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 it is intended to settle them at net value or to realize the asset and settle the liability simultaneously.

- **Deferred:** Deferred income tax is recognized using the liability method calculated on the temporary differences between the tax bases of assets and liabilities and their carrying amounts. Deferred tax liabilities are generally recognized for all taxable temporary differences, while deferred tax assets are recognized for all deductible temporary differences and for future offsetting of unused tax credits and tax losses to the extent that availability is probable. of future taxable profits against which they can be imputed. Deferred taxes are not discounted.

Deferred tax assets and liabilities are not recognized if the temporary difference arises from the initial recognition of an asset or liability in a transaction that does not constitute a business combination and that, at the time of the transaction, affected neither accounting profit nor tax gain or loss; and in the case of deferred tax liability when it arises from the initial recognition of goodwill.

Deferred tax liabilities related to investments in subsidiaries, associates and interests in joint ventures are not recognized when the timing of the reversal of temporary differences can be controlled and it is probable that such differences will not reverse in the near future. Deferred tax assets related to investments in subsidiaries, associates and interests in joint ventures are recognized only to the extent that it is probable that

temporary differences will reverse in the near future, and it is probable that future taxable income will be available against which those deductible differences will be charged.

The carrying amount of deferred tax assets is reviewed at each reporting date and is reduced to the extent that it is no longer probable that there will be sufficient taxable income to use all or part of the deferred tax asset. Unrecognized deferred tax assets are reassessed at each reporting date and are recognized to the extent that it is probable that future taxable income will allow their recovery.

Deferred tax assets and liabilities are measured at the tax rates that are expected to be applicable in the period in which the asset is realized or the liability is settled based on the tax rates and regulations that were approved on the reporting date, or whose approval procedure is close to being completed by that date. The measurement of deferred tax assets and liabilities will reflect the tax consequences that would result from the way in which the entity expects, at the end of the reporting period, to recover or settle the carrying amount 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 to do so and they are with the same tax authority.

Deferred tax is recognized in the result of the period, except that related to items recognized outside the result; in this case it will be presented in other comprehensive income or directly in equity.

For the purpose of measuring deferred tax liabilities and deferred tax assets for investment properties that are measured using the fair value model, the carrying amount of such properties is presumed to be fully recovered through sale, at unless the presumption is rebutted. The presumption is rebutted when the investment property is depreciable and is maintained within a business model whose objective is to consume substantially all the economic benefits generated by the investment property over time, and not through sale. The directors reviewed the investment property portfolio of

the company and concluded that none of the investment properties of the company are held under a business model whose objective is to consume substantially all the economic benefits generated by the investment properties over time and not through the sale. Therefore, the directors have determined that the presumption of "sale" should be established in the amendments to IAS 12 Income Tax.

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

Sales tax - VAT

LEPM is responsible for the common regime since it makes sales of personal property and provides taxed services and obtains exempt income from exports. Currently in Colombia, energy, aqueduct, sewerage and home gas services are excluded from this tax.

In Colombia the general rate is 19% and there is a differential rate of 5%.

In Colombia, the generation of income excluded in the particular case of residential public services, the VAT paid on purchases is part of a higher cost value. Likewise, when taxable income is generated, that is, when taxed goods or services are sold, the VAT paid on the purchase or acquisition of inputs for these sales will be deductible from the value to be paid for the tax. When the company generates income that is excluded from VAT, but at the same time generates income that is exempt and taxed, in this case, a pro-rata of the VAT paid must be made to determine the percentage of VAT to be discounted.

The tax generated is recognized as a value payable to the tax administration from which the tax paid is deducted. Revenues are recognized without considering the value of the tax.

2.11. Property, plant and equipment

Property, plant and equipment are measured at cost, net of accumulated depreciation and accumulated impairment losses, if any. The cost includes the acquisition price, the costs directly related to the location of the asset in the place and the necessary conditions for it to operate in the way foreseen by the company, the costs for loans of the projects under construction that take a substantial period to be completed, if the recognition requirements are met and the present value of the expected cost of dismantling the asset after use, if the recognition criteria for a provision are met.

Construction in progress is measured at cost less any recognized impairment loss and includes those expenditures that are essential and directly related to the construction of the asset, such as professional fees, supervision, civil works and, in the case of those qualified assets, borrowing costs are capitalized. Such construction in progress is classified to the appropriate categories of property, plant and equipment at the time of its completion and when it is ready for use. Depreciation of these assets begins when they are ready for use on the same basis as in the case of other items of property, plant, and equipment.

The company capitalizes as a higher value of the assets, the additions or improvements made to them, provided that they meet any of the following conditions: a) they increase their useful life, b) they expand their productive capacity and operating efficiency, and c) reduce costs to the company. All other repair and maintenance costs are recognized in the statement of comprehensive income as they are incurred.

Inventories of spare parts for specific projects, which are expected to have no turnover in one year and which meet the criteria to be capitalized, known as replacement assets, are presented under other property, plant, and equipment. They are depreciated considering the time spent in the warehouse and the technical useful life of the asset once its use begins.

Depreciation begins when the asset is available for use and is calculated on a straight-line basis over the estimated useful life of the asset as follows:

Plants, ducts and tunnels	
Civil work	50 to 100 years
Equipment	10 to 100 years
Networks, lines, and cables	
Electric transmission network	30 to 40 years
Power distribution network	30 to 40 years
Aqueduct network	40 to 80 years
Network Wastewater	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	10 to 20 years

The useful lives are determined considering, among others, the manufacturer's technical specifications, the knowledge of the technicians who operate and maintain the assets, the geographical location and the conditions to which it is exposed.

EPM calculates depreciation by components, which implies individually depreciating the parts of the asset that have different useful lives. The depreciation method used is straight line; the residual value that is calculated for the assets is not part of the depreciable amount.

A component of property, plant and equipment and any significant part initially recognized are derecognized upon disposal or when no future economic benefits are expected to be obtained from its use or disposal. The gain or loss at the time of writing off the asset, calculated as the difference between the net value of the disposal and the carrying amount of the asset, is included in the statement of comprehensive income.

Assets temporarily classified out of service continue to be depreciated 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 required.

2.12. Leases

The determination of whether an arrangement constitutes or contains a lease is based on the substance of the arrangement at its inception date, considering whether fulfillment of the arrangement requires the use of an asset and whether it transfers the right to control the use of that asset for a period of time in exchange for consideration.

On the start date of the lease, the company acting as lessee recognizes a right-of-use asset and a lease liability, except for leases with a duration of less than 12 months or those whose new value of the underlying asset is less than 15 (fifteen) current legal minimum wages (SMMLV).

EPM that acts as lessor classifies the lease as operating or financial. A lease is classified as financial when the risks and rewards inherent in ownership of the leased asset are substantially transferred to the lessee; otherwise, it is classified as an operating lease.

EPM as lessee

Right-of-use assets are recognized and presented as assets in the statement of financial position at the beginning of the lease, at cost that includes the value of the lease liability, initial direct costs, payments made in advance, incentives, estimated costs decommissioning, among others. The corresponding liability is included in the statement of financial position as a lease liability, which is measured as the present value of future lease payments discounted using the interest rate implicit in the contract, if it can be easily determined, otherwise, you will use the company's incremental borrowing rate. Future lease payments comprise fixed payments, variable payments, incentives to collect, residual value guarantees expected to be paid, the price of the purchase option and the payment of penalties for early termination of the contracto.

Right-of-use assets are amortized over the asset's useful life using the straight-line method, if ownership of the underlying asset is transferred at the end of the contract or a purchase option is exercised. If ownership of

the underlying asset is not transferred by the end of the lease term or if the option to purchase the asset is not exercised, the asset is amortized only through the end of the useful life or the lease term, whichever comes first.

Lease payments are divided between financial expenses and debt repayment. Financial charges are recognized in income for the period unless they can be directly attributable to qualifying assets, in which case they are capitalized in accordance with the Company's policy for borrowing costs. Variable lease payments, which depend on an index or a rate, are included in the measurement of the lease liability. Leases with a duration of less than 12 months or those whose new value of the underlying asset is less than 15 (fifteen) SMMLV are recognized as operating leases in the result of the period throughout the term of the lease.

EPM as lessor

Assets leased under financial leases are not presented as property, plant, and equipment since the risks associated with the property have been transferred to the lessee, instead, an account receivable is recognized for a value equal to the net investment in the lease.

When a lease agreement includes components of land and buildings together, EPM assesses the classification of each component separately as a financial 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 an operating lease.

Income, which depends on an index or a rate, is included in the valuation of the net investment in the lease.

The initial direct costs, such as commissions, fees, legal and internal costs that are incremental and directly attributable to the negotiation and contracting of the lease, are included in the measurement of the net investment in the lease at the beginning and are reflected in the calculation of the implicit interest rate.

When the lease is classified as an operating lease, lease payments are recognized as revenue on a straight-line basis or on another systematic basis, provided that it is more representative of the structure by which the benefit from the use of the underlying asset is diminished.

2.13. Borrowing costs

Borrowing costs that are directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to prepare for its intended use or sale, are capitalized as part of the cost of the respective assets until the asset is is ready for its intended use. The income received from the temporary investment in specific loans pending to be consumed in qualified assets is deducted from the costs for loans suitable for their capitalization. All other borrowing costs are expensed in the period in which they are incurred. Borrowing costs consist of interest and other costs that the business incurs in connection with borrowing funds. To the extent that the funds come from generic loans and are used to obtain a qualifying asset, the value of the costs eligible for capitalization is determined by applying a capitalization rate (weighted average of the costs for loans applicable to the general loans outstanding during the period) to the disbursements made on said asse.

The capitalization of borrowing costs begins on the date on which the following conditions are met:

- Disbursements are incurred in relation to the asset
- Borrowing costs are incurred, and
- Activities necessary to prepare the asset for its intended use or sale are carried out.

The capitalization of borrowing costs is suspended during the periods in which the development of activities of a qualified asset is interrupted for periods of more than one year. However, the capitalization of borrowing costs is not interrupted during a period if important technical or

administrative actions are being carried out. Nor is the capitalization of borrowing costs suspended when a temporary delay is necessary as part of the process of preparing a qualifying asset for use or sale.

The capitalization of borrowing costs is completed when substantially all the activities necessary to prepare the qualifying asset for use or sale have been completed. When the asset has components that can be used separately while construction continues, the capitalization of borrowing costs on those components is stopped.

When EPM completes construction of a qualifying asset in parts, and each part can be used separately while construction continues on the rest, capitalization of borrowing costs will cease when substantially all activities necessary to prepare that asset is completed. part for its intended use or sale.

2.14. Investment properties

Investment property is land or buildings or part of a building or both, held for rentals or capital appreciation (including investment property under construction for such purposes). Investment properties are initially measured at cost, including transaction costs. The carrying amount includes the cost of replacing or replacing a part of an existing investment property at the time the cost is incurred, if the recognition criteria are met; and excludes the costs of daily maintenance of the investment property.

Subsequent to initial recognition, investment properties are measured at fair value that reflects market conditions at the reporting date. Gains and losses arising from changes in the fair values of investment properties are included in the statement of comprehensive income in the section result of the period in the period in which they arise.

Investment properties are derecognized, either at the time of disposal, or when permanently withdrawn from use, and no future economic benefit is expected. The difference between the value obtained net of the disposal and the carrying amount of the asset is recognized in the statement of comprehensive income in the section result of the period in the period in which it was derecognize.

Transfers are made to or from investment properties 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 accounting is the fair value at the date of the change of use. If a property, plant and equipment become an investment property, it will be accounted for at its fair value, the difference between the fair value and the carrying amount will be recorded as a revaluation applying IAS 16 Property, plant, and equipme.

2.15. Intangible assests

Intangible assets acquired separately are initially measured at cost. The cost of intangible assets acquired in business combinations is their fair value at the acquisition date. After initial recognition, intangible assets are carried at a cost less any accumulated amortization and impairment losses. Internally generated intangible assets are capitalized as long as they meet the criteria for recognition as an asset and the generation of the asset must be classified into research phase and development phase; If it is not possible to distinguish the research phase from the development phase, the disbursements must be reflected in the statement of comprehensive income in the period in which they are incurred.

The useful lives of intangible assets are determined as finite or indefinites.

Intangible assets with finite useful lives are amortized over their economic useful life on a straight-line basis and are evaluated to determine whether they had any impairment, provided 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 useful life

are reviewed at least at the end of each period. Changes in the expected useful life or in the expected pattern of consumption of the asset's future economic benefits are accounted for by changing the amortization period or method, as appropriate, and are treated as changes in accounting estimates. The expense for amortization of intangible assets with finite useful lives is recognized in the statement of comprehensive income in the section result of the period in the category of expenses that is consistent with the function of the intangible asset.

Intangible assets with indefinite useful lives are not amortized but are subjected to annual tests to determine whether they suffered impairment, either individually or by cash-generating unit - CGU. The indefinite life assessment is reviewed annually to determine if said indefinite life is still valid. If it is not, the change in useful life from indefinite to finite is carried out prospectively.

The useful lives of intangible assets aren:

Similar concessions and rights	Depending on the term of the contract
Easements	Indefinite
Capitalized development costs	Indefinite
Software and computer applications	Indefinite/Finite 3 to 5 years
Licenses	Indefinite/Finite 3 to 5 years
Rights	Depending on the term of the contract
Other intangible assets	Indefinite/Finite 7 to 15 years

An intangible asset is derecognized when it is disposed of, or when no future economic benefits are expected from its use or disposal. The gains or losses that arise are measured by the difference between the value obtained in the disposal and the carrying amount of the asset and is recognized in the statement of comprehensive income section result of the period.

Research and development costs

Research costs are expensed as incurred. Expenditures for development in an individual project are recognized as an intangible asset when the company can demonstrate:

- The technical feasibility of completing the intangible asset so that it is available for use or sale.
- Your intention to complete the asset and your ability to use or sell the asset.
- How the asset will generate future economic benefits, considering, among others, the existence of a market for the production generated by the intangible asset or for the asset itself, or the utility of the asset for the entity.
- The availability of technical and financial resources to complete the asset and to use and sell it.
- The ability to reliably measure disbursement during development.

In the statement of financial position, the asset for development disbursements is recognized from the moment the element meets the conditions for its recognition established above, and they are recorded at cost less accumulated amortization and accumulated losses due to value impairment.

When the development of an intangible asset related to a power generation project begins, the costs are accumulated as construction in progress.

The amortization of the asset begins when the development has been completed and it is available for use. It is amortized over the period of the expected future economic benefit. During the development period, the asset is tested annually to determine if there is impairment of its value.

Research costs and development costs that do not qualify for capitalization are recorded as expenses in the statement of comprehensive income section result for the period.

Goodwill

Goodwill represents the difference between the cost of a group of assets that constitutes a business, over which control is acquired, and the fair value at the time of acquisition of this group of acquired assets.

Goodwill is not amortized, is measured at cost less any accumulated impairment loss, and is subject to impairment testing annually or more frequently when there are indicators of impairment. Value impairment losses are recognized in the statement of comprehensive income in the section result for the period.

For CGUs that have goodwill assigned, impairment is assessed annually, which implies calculating the value-in-use of the CGUs to which it is being assigned. The calculation of the value-in-use requires the determination of the future cash flows that must arise from the CGUs and an appropriate discount rate to calculate the present value. When actual future cash flows are less than expected, an impairment loss may arise.

2.16. 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 recognized in the statement of financial position when the company becomes a party in accordance with the contractual conditions of the instrument.

Total payments are indexed with the IPP, based on the IPP of the month prior to signing the connection contract.

2.16.1. Financial assets

The company initially recognizes its financial assets at fair value. Transaction costs directly attributable to the financial asset are added to or deducted from its fair value if these are subsequently measured at amortized cost or fair value through other comprehensive income or are recognized 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 at fair value (through other comprehensive income or through results) depending on the business model of the company to manage the financial assets and the characteristics of the contractual cash flows. of the instrument.

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. EPM classifies a financial asset in this category if it is acquired mainly for the purpose of being sold in the short term.

Investments made to optimize excess liquidity are included, that is, all those resources that are not immediately allocated to the development of the activities that constitute the corporate purpose of the company. The investment of excess liquidity is made under the criteria of transparency, security, liquidity and profitability, under the guidelines of adequate control and in market conditions without speculative spirit (EPM General Management Decree 2015-DECGGL-2059 of February 6 of 2015). Gains and losses arising from changes in fair value are included in the statement of comprehensive income under Finance income or expenses, in the period in which the aforementioned changes in fair value occur.

Dividend income is recognized when the company's right to receive payment is established.

At the same time, the company can irrevocably designate a financial asset as measured at fair value through profit or loss.

Financial assets at fair value through other comprehensive income

Debt instruments that are maintained under a business model whose objective is obtained by obtaining the contractual cash flows and selling the instruments are classified as assets measured at fair value through other comprehensive income and, in addition, the instrument grants, on specific dates, cash flows that correspond only to payments of principal and interest on the outstanding principal value.

Variations 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 that are recognized in the results of the period.

EPM has made the irrevocable election to present in other comprehensive income the subsequent changes in the fair value of some investments in equity instruments that are not held for trading. Dividends from this type of investment are recognized in profit or loss for the period when the right to receive payment is established.

When equity investments are disposed of 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 rate[2] if the asset is held within a business model whose objective is to hold it to obtain the contractual cash flows and the contractual terms thereof that grant, on specific dates, cash flows that are solely payments of principal and interest on the outstanding principal value.

Impairment of financial instruments

On each reporting date, the company recognizes value adjustments for expected credit losses on financial assets that are measured at amortized cost or at fair value through other comprehensive income, including accounts receivable from leases, contract assets, or loan commitments, and financial guarantee contracts to which the value impairment requirements are applied during the life of the asset.

[2] *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 discount rate that exactly matches the future cash flows of 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) through the expected life of the instrument, or if appropriate, a shorter period, to it carrying amount on initial recognition.*

Expected credit losses are estimated considering the probability that a loss due to bad debts may or may not occur and are recognized as a gain or loss in the result of the period against a lower value of the financial asset. The company assesses the credit risk of accounts receivable on a monthly basis in order to determine the value adjustment for expected credit losses on financial assets.

The company assesses on a collective basis the expected losses for financial assets that are not individually significant. When the collective evaluation of expected losses is carried out, the accounts receivable are grouped by similar credit risk characteristics, which make it possible to identify the debtor's ability to pay, in accordance with the contractual terms of negotiation of the account receivable.

The company determines that a client's credit risk increases significantly when there is a breach of financial agreements by the counterparty, or when internal information or information obtained from external sources indicate that the debtor's payment is unlikely, without considering the guarantees maintained.

Non-compliance with agreements is generally measured when there are 2 overdue accounts, however, if there are individual agreements or contracts that indicate non-compliance immediately, the obligation is no longer met.

The company determines that a financial asset presents credit deterioration when:

- There is evidence of client default in the payment of two (2) or more collection accounts.
- It is known or there is evidence that the client is undergoing business restructuring processes or insolvency or liquidation.
- Social disturbances, public order or natural disasters occur, which according to experience are directly correlated with non-payment of collection account.

Credit risk is affected when there are changes in financial assets. The company's policy to reassess the recognition of credit losses is basically based on the payment behavior of the client or counterparty. When there is evidence of an improvement in the client's historical payment behavior, a decrease in risk is recorded, and in the event of an increase in the portfolio's default age, an increase in asset impairment is recorded.

Impaired financial assets may continue to be subject to collection enforcement activities under the company's recovery procedures, considering legal collection where appropriate. The recoveries made are recognized in the result of the period.

Derecognition of financial assets

A financial asset or part of it is derecognized from the statement of financial position when it is sold, transferred, expires or the company loses control over the contractual rights or cash flows of the instrument.

The company derecognizes a financial asset when:

- There is information indicating that the counterparty is in severe financial difficulties and there are no realistic prospects for recovery.
- The counterparty has been placed in liquidation or has initiated bankruptcy proceedings or, in the case of accounts receivable.
- The amounts exceed two years past due, whichever occurs earlier.

If the company does not transfer or retain substantially all the risks and rewards of ownership and continues to retain control of the transferred asset, the company recognizes its interest in the asset and the associated obligation for the amounts it would have to pay, likewise, if the company retains substantially all the risks and rewards of ownership of a transferred financial asset, the company continues to recognize the financial asset and also recognizes a collateralized loan for proceeds received.

In the total derecognition of a financial asset measured at fair value through profit or loss, the difference between the carrying amount of the asset and the sum of the consideration received and receivable is recognized in the result of the period. For financial assets measured at fair value through other comprehensive income, the difference between the carrying amount of the asset and the sum of the consideration received and receivable is recognized in profit or loss for the period, and the gain or loss that would have been recognized in other comprehensive income is reclassified to retained earnings.

Credit refinancing

When the contractual cash flows of a financial asset are renegotiated or otherwise modified and the renegotiation or modification does not give rise to derecognition of that financial asset in accordance with IFRS 9 adopted in Colombia, the Company recalculates the value gross carrying amount of the financial asset and recognizes a change gain or loss in profit or loss for the period. The gross carrying amount 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 purchased or originated credit-impaired rates) or, when applicable, the revised effective interest rate. Any cost or fee incurred adjusts the carrying amount of the modified financial asset and is amortized over its remaining life.

2.16.2. Financial liabilities

At initial recognition, the company measures financial liabilities at their fair value. The transaction costs directly attributable to the acquisition or obtaining of the financial liability are deducted from their fair value if these are subsequently measured at amortized cost or are recognized in the result of the period if the liabilities are measured at their fair value. Subsequently, financial liabilities are measured as follows:

- **At fair value through profit or loss**, include liabilities held for trading, financial liabilities designated at the time of initial recognition as at fair value through profit or loss, and derivatives. Gains or losses from liabilities held for trading are recognized in profit or loss for the period. On initial recognition, the company designated financial liabilities as at fair value through profit or loss.
- **At amortized cost**, they are measured using the effective interest rate. Gains and losses are recognized in the result of the period.

Compound instruments

Financial instruments that contain both a liability and an equity component (compound financial instruments) are recognized and accounted for separately. Therefore, for the initial measurement, the liability component is determined by the fair value of 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 amortization costs, interest, and dividends. The equity component retains the initial recognition measuremen.

Financial guarantee contracts

Financial guarantee contracts issued by the company are those that require a specific payment to be made to reimburse the holder for the loss incurred when a specified debtor defaults on its payment obligation, in accordance with the terms of a security instrument. debt. Financial guarantee contracts are initially recognized as a liability at fair value, adjusted for transaction costs directly attributable to the issuance of the guarantee. Subsequently, the liability is measured at the greater of (i) the amount of the value correction for expected losses and (ii) the initially recognized value less the accumulated value of the recognized income.

Derecognition of financial liabilities

A financial liability or a part of it is derecognized from the statement of financial position when the contractual obligation has been settled or has expired.

When an existing financial liability is replaced by another from the same lender under substantially different terms, or if the terms of an existing liability are substantially modified, such exchange or modification is treated as derecognition of the original liability and recognition of a new one. liabilities and the difference in the respective carrying amounts are recognized in the result of the period.

The conditions will be materially different if the present value of the cash flows under the new conditions, including any commission paid net of any commission received, discounted at the original effective interest rate, differs by at least 10% from the present value of the cash flows that still remain from the original financial liability.

In determining commissions paid net of commissions received, Company includes only commissions paid or received between Company and the lender, including those paid or received by one on behalf of the other or vice versa.

If the changes are not substantial, the company recalculates the gross carrying amount of the financial liability and recognizes a gain or loss due to changes in the result of the period. The gross carrying amount of the financial liability is recalculated as the present value of the modified or renegotiated contractual cash flows that are discounted at the original effective interest rate of the financial liability or, when applicable, the revised effective interest rate. Any cost or commission incurred adjusts the carrying amount of the modified financial liability and is amortized over its remaining term.

2.16.3. Equity Instruments

An equity instrument consists of any contract that evidences a residual interest in the assets of an entity, after deducting all its liabilities. Equity instruments issued by the company are recognized by income received, net of direct issuance costs.

The repurchase of the company's own equity instruments is recognized and deducted directly from equity. No gain or loss is recognized in the results from the purchase, sale, insurance, or cancellation of the company's own equity instruments.

2.16.4. Derivative financial instruments

A financial derivative is an instrument whose value varies in response to changes in a variable such as an interest rate, exchange rate, the price of a financial instrument, a credit rating or index. This instrument does not require an initial investment or is lower than other financial instruments with a similar response to changes in market conditions and is generally settled at a future date.

The company uses derivative financial instruments, such as forward contracts, futures contracts, swaps, and options to hedge various financial risks, mainly interest rate, exchange rate, and commodity price risks). Such derivative financial instruments are initially recognized at their fair value on the date the derivative contract is entered into and are subsequently remeasured at their fair value. Derivatives are accounted for as financial assets when their fair value is positive, and as financial liabilities when their fair value is negative, in the statement of financial position.

Commodity contracts that meet the definition of a derivative but are entered into in accordance with the company's expected purchase requirements, are recognized in profit or loss for the period as cost of sales.

Any gain or loss arising from changes in the fair value of derivatives is recognized directly in the result of the period, except those that are under hedge accounting.

In general, derivatives embedded in host contracts are treated as separate derivatives if they meet the definition of a derivative and when their risks and characteristics are not closely related to those host contracts and the contracts are not measured at fair value through profit or loss. However, derivatives embedded in contracts where the host is a financial asset within the scope of IFRS 9 adopted in Colombia are never separated. Instead, the hybrid financial instrument as a whole is evaluated for the classification of financial assets.

Hedge accounting

At the inception of a hedging relationship, EPM formally designates and documents the hedging relationship to which it wishes to apply hedge accounting, and the risk management objective and strategy for undertaking 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 company will assess the effectiveness of changes in the fair value of the hedging instrument in offsetting the exposure to changes in the fair value of the hedged item or in the cash flows attributable to the hedged risk. Hedges are expected to be highly effective in compensating for changes in fair value or cash flows, and for this purpose they are permanently evaluated throughout the reporting periods for which they were designated.

For hedge accounting purposes, hedges are classified and accounted for as follows, once the strict criteria for their accounting are met:

- **Fair value hedges**, when they cover exposure to changes in the fair value of recognized assets or liabilities or unrecognized firm commitments.

  The change in the fair value of a derivative that is a hedging instrument is recognized in the result of the period as financial cost or income. The change in fair value of the hedged item attributable to the hedged risk is recorded as part of the carrying amount of the hedged item and is also recognized in profit or loss for the period as finance cost or income.

  For fair value hedges that relate to items carried at amortized cost, carrying amount adjustments are amortized through profit or loss for the period remaining to maturity. Amortization of the effective interest rate may begin as soon as there is an adjustment to the carrying amount of the hedged item but must begin no later than when the hedged item is no longer adjusted for changes in its fair value attributable to the risk being covering. Amortization of carrying amount adjustments is based on the recalculated effective

interest rate on the amortization start date. If the hedged item is derecognized, the unamortized fair value is recognized immediately in profit or loss for the period.

When an unrecognized firm commitment is designated as a hedged item, the subsequent cumulative change in the fair value of the firm commitment attributable to the hedged risk is recognized as an asset or liability with a corresponding gain or loss recognized in profit or loss.

- **Cash flow hedges**, when they cover the exposure to the variation in cash flows attributed either to a particular risk associated with a recognized asset or liability or to a highly probable forecast transaction, or to the exchange rate risk in a commitment unrecognized sign.

  The purpose of cash flow hedge accounting is to recognize changes in the fair value of the hedging instrument in other comprehensive income in order to apply them to the income statements when and at the rate that the hedged item affects them.

  The part of the gain or loss of the hedging instrument that is determined to be an effective hedge will be recognized in equity within other comprehensive income.

  The effective part will be equal (in absolute terms) to the value that is less between:

  - The difference between the fair value at the time of valuation and at the start date of the hedging instrument; and
  - The difference between the fair value (present value) of the expected future cash flows of the hedged item at the valuation date and at the inception date.

  The ineffective part of the gain or loss of the hedging instrument will be recognized in the result of the period.

  The ineffective part shall be the difference between:

  - The difference between the fair value at the time of valuation and at the start date of the hedging instrument; and
  - The effective part of the hedge.

The measurement of the effectiveness of the hedges is carried out on a monthly basis.

Values recognized in other comprehensive income are reclassified to profit or loss for the period when the hedged transaction affects the result, as well as when the hedged financial income or expense is recognized, or when the forecast transaction takes place. When the hedged item constitutes the cost of a non-financial asset or liability, the values recognized in other comprehensive income are reclassified to the initial carrying amount of the non-financial asset or liability. If the forecast transaction or firm commitment is no longer expected to occur, the cumulative gain or loss previously recognized in other comprehensive income is reclassified to profit or loss for the period.

If the hedging instrument expires or is sold, terminated, or exercised without successive replacement or renewal of one hedging instrument with another hedging instrument, or if its designation as a hedge is revoked, any cumulative gain or loss previously recognized in Other comprehensive income remains in other comprehensive income until the planned operation or firm commitment affects the result.

- **Hedges of net investments in foreign businesses**, when they cover the exposure to variations in the conversion of foreign businesses to the company's presentation currency associated with exchange rate risk.

  The objective of the hedge of net investment in foreign currency is to cover the exchange rate risks that a Main or Intermediate Parent that has business abroad may have on the impact on the conversion of financial statements from functional currency to currency of presentation. The net foreign currency investment hedge is a hedge of foreign currency exposure, not a fair value hedge of changes in the value of the investment.

  Effectiveness and ineffectiveness are accounted for similarly to cash flow hedges.

  The gains or losses of the hedging instrument that relate to the effective portion of the hedge are recognized in other comprehensive

income, while any gain or loss related to the ineffective portion is recognized in profit or loss for the period. Upon disposal of the business abroad, the accumulated value of the gains or losses recorded in the other comprehensive income is reclassified to the result of the period.

2.16.5. Offset of financial instruments

Financial assets and liabilities are offset in such a way that the net value is reported in the statement of financial position, only if (i) there is, at present, a legally enforceable right to offset the recognized values, and (ii) there is an intention to liquidate them for net value, or to realize the assets and cancel the liabilities simultaneously.

2.17. Inventories

Goods acquired with the intention of selling them in the ordinary course of business or consuming them in the process of rendering services are classified as inventories.

Inventories are valued at cost or net realizable value, whichever is lower. Net realizable value is the estimated sales price in the ordinary course of business, less estimated costs of completion and estimated costs necessary to effect the sale.

Inventories include goods in stock that do not require transformation, such as energy, gas and water meters and supply goods. They include materials such as minor spare parts and accessories for the provision of services and 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 condition and location.

2.18. Impairment of non-financial assets

At each reporting date, the company assesses whether there is any indication that a tangible or intangible asset may be impaired in value. The company estimates the recoverable value of the asset or CGU, at the moment it detects an indication of impairment, or annually (as of November 30, and it is reviewed if there are relevant or significant events presented in December that merit analysis and inclusion in the calculation of the impairment) for intangible assets with an indefinite useful life and those that are not yet in use.

The recoverable value of an asset is the higher of the fair value less costs to sell, either of an asset or of a CGU, and its value-in-use is determined for an individual asset, unless the asset does not generate cash flows. cash that are substantially independent from those of other assets or groups of assets, in this case the asset must be grouped into a CGU. When a reasonable and consistent allocation base is identified, common/corporate assets are also allocated to individual CGUs, or allocated to the smallest group of CGUs for which a reasonable and consistent allocation base can be identified. When the carrying amount of an asset or a CGU exceeds its recoverable value, the asset is considered impaired, and the value is reduced to its recoverable amount.

In calculating value-in-use, estimated cash flows, whether from an asset or from a CGU, are discounted to their present value using a pre-tax discount rate that reflects market considerations of the time value of cash and the asset-specific risks. An appropriate valuation model is used to determine fair value less costs to sell.

Impairment losses from continuing operations are recognized in the statement of comprehensive income in the section result for the period in those categories of expenses that correspond to the function of the impaired asset. Impairment losses attributable to a CGU are assigned proportionally based on the carrying amount 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 company, which are largely independent of the cash flows

derived from other assets or groups of assets. In the company, the CGUs were defined considering: 1) the existence of income and costs for each group of assets, 2) the existence of an active market for the generation of cash flows and 3) the way in which they are managed and monitored. the operations. For the purpose of evaluating losses due to value impairment, the assets are grouped into the following CGUs: Generation, Distribution, Sanitation, Water Supply, Gas and Transmission.

The value impairment for goodwill is determined by evaluating the recoverable value of each CGU (or group of CGUs) to which the goodwill relates. Impairment losses related to goodwill cannot be reversed in future periods.

For assets in general, excluding goodwill, an assessment is made at each reporting date as to whether there is any indication that previously recognized impairment losses no longer exist or have diminished. If such an indication exists, the company makes an estimate of the recoverable value of the asset or of the CGU. A previously recognized impairment loss is only reversed if there has been a change in the assumptions used to determine the recoverable amount of an asset since the last impairment loss was recognized. The reversal is limited in such a way that the carrying amount of the asset does not exceed its recoverable amount, nor does it exceed the carrying amount that would have been determined, net of depreciation, if an impairment loss had not been recognized for the asset. in the previous years. Such reversal is recognized in the statement of comprehensive income in the section result of the period.

2.19. Provisions

Provisions are recorded when the company has a present obligation, legal or implicit, as a result of a past event. It is likely that the company will have to part with resources embodying economic benefits to settle the obligation, and a reliable estimate of the value of the obligation can be made. In cases where the company expects the provision to be repaid in

whole or in part, the repayment is recognized as a separate asset, but only in cases where such repayment is practically certain and the amount of the asset can be measured with reliability. In the company each provision is used only to face the disbursements for which it was originally recognized.

Provisions are measured by management's best estimate of the disbursements required to settle the present obligation, at the end of the reporting period, considering the corresponding risks and uncertainties. When a provision is measured using the estimated cash flow to settle the present obligation, its carrying amount corresponds to the present value of said cash flow, using for the discount a rate calculated with reference to the market yields of the bonds issued by the National Government. In Colombia, the yield of the TES Bonds (public debt securities issued by the General Treasury of the Nation) at the end of the reporting period must be used.

The expense corresponding to any provision is presented in the statement of comprehensive income in the section result of the period net of any reimbursement. The increase in the provision due to the passage of time is recognized as a financial expense.

Dismantling provision

The company recognizes as part of the cost of a particular fixed asset, whenever there is a legal or implicit obligation to dismantle or restore, the estimate of future costs that the company expects to incur to carry out the dismantling or restoration and its counterpart the recognized as a provision for dismantling or restoration costs. The dismantling cost is depreciated over the estimated useful life of the fixed asset.

Dismantling or restoration costs are recognized at the present value of the expected costs to settle the obligation using estimated cash flows. Cash flows are discounted at a pre-tax rate, which must be determined by taking as reference the market yields of bonds issued by the National

Government. In Colombia, in terms of risk-free rates, the yield of the TES Bonds (Public debt securities issued by the General Treasury of the Nation) must be used.

Estimated future costs for decommissioning or restoration are reviewed annually. Changes in estimated future costs, estimated disbursement dates, or the discount rate applied are added to or deducted from the cost of the asset, not to exceed the asset's carrying amount. Any excess is recognized immediately in the result of the period. The change in the value of the provision associated with the passage of time is recognized as a financial expense in the statement of comprehensive income in the section result of the period.

Onerous contracts

EPM recognizes the present obligations that derive from an onerous contract, as provisions and their counterpart is in the statement of comprehensive income in the section result of the period. An onerous contract is one in which the unavoidable costs of fulfilling the obligations that it entails exceed the economic benefits that are expected to be received from it. The unavoidable costs are those that reflect the lower net costs of fulfilling the contract, that is, the lower value between the net cost of complying with its clauses and the value of the offset or fines derived from its non-compliance.

Contingent liabilities

Possible obligations arising from past events and the existence of which will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not entirely under the control of the Company or present obligations arising from past events but not it is probable, if not possible, that an outflow of resources that includes economic benefits will be required to settle the obligation or the amount of the obligation cannot be measured with sufficient reliability, they are not recognized in the statement of financial position and, instead, are disclosed as contingent liabilities. Contingent liabilities arising from a business combination are recognized at fair value at the acquisition date.

Contingent assets

Assets of a possible nature, arising as a result of past events, whose existence has to be confirmed only by the occurrence, or in its case by the non-occurrence, of one or more uncertain events in the future, which are not entirely under the control of the Company, are not recognized in the statement of financial position, instead they are disclosed as contingent assets when their occurrence is probable. When the contingent event is true, the asset and the associated income are recognized in income 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 reporting periods, such contingent assets are measured at the higher of the amount that would have been recognized and the amount initially recognized less recognized accumulated amortization.

2.20. Employee benefits

2.20.1. Post-employment benefits

Defined contribution plans

Contributions to defined contribution plans are recognized as expenses in the statement of comprehensive income in the profit or loss section of the period at the time the employee has provided the service that entitles him or her to make the contributions.

Defined benefit plans

Post-employment benefit plans are those in which the company has the legal or implicit obligation to respond for the benefit payments that were left under its responsibility.

For defined benefit plans, the difference between the fair value of plan assets and the present value of the plan obligation is recognized as an asset or liability in the statement of financial position. The cost of providing benefits under the defined benefit plans is determined separately for each plan, through the actuarial valuation method of the projected credit unit, using actuarial assumptions at the date of the reporting period. Plan assets are measured at fair value, which is based on market price information and, in the case of listed securities, is the published purchase price.

Actuarial gains or losses, return on plan assets and changes in the effect of the asset ceiling, excluding values included in net interest on the net defined benefit liability (asset), are recognized in other comprehensive income. Actuarial gains or losses comprise the effects of changes in actuarial assumptions as well as experience adjustments.

Net interest on the net defined benefit liability (asset) comprises interest income from plan assets, interest costs from the defined benefit obligation and interest from the effect of the asset ceiling and are recognized in profit or loss. of the period.

The current service cost, the past service cost, any settlement, or reduction of the plan are recognized immediately in the statement of comprehensive income in the section result of the period in the period in which they arise.

2.20.2. Short-term benefits

The company classifies as short-term employee benefits those obligations with employees, which it expects to settle within twelve months following the end of the accounting period in which the obligation was generated, or the service provided. Some of these benefits are generated by current labor regulations, by collective agreements or by informal practices that generate implicit obligations.

The company recognizes the short-term benefits at the time the employee has rendered his services as:

A liability, for the value that will be remunerated to the employee, deducting the values already paid previously, and its counterpart as an expense of the period, unless another chapter requires or allows including the payments in the cost of an asset or inventory, for example, if the payment corresponds to employees whose services are directly related to the construction of a work, they will be capitalized to that asset.

The amounts already paid in advance correspond, for example, to salary advances and advance travel expenses, among others, which in the event that they exceed the corresponding liability, the company must recognize the difference as an asset in the account of expenses paid by in advance, to the extent that the advance payment results in a reduction in future payments or a cash refund.

In accordance with the foregoing, the accounting recognition of short-term benefits is made at the time the transactions occur, regardless of when they are paid to the employee or third parties to whom the company has entrusted the provision of certain services.

2.20.3. Long-term benefits

EPM classifies as long-term employee benefits those obligations that it expects to settle after the twelve months following the end of the accounting year or the period in which the employees provide the related services, that is, from the thirteenth month onwards; they are different from short-term benefits, post-employment benefits, and termination benefits.

Post-employment defined benefit plans. Although its measurement is not subject to the same degree of uncertainty, the same methodology will be applied for its measurement as follows:

- Post-employment benefits, both for the estimation of the obligation and for the assets of the plan.

- EPM must determine the value of the net long-term employee benefits (liability or asset) by finding the deficit or surplus of the obligation and comparing the asset ceiling.

The benefits that employees receive year after year throughout their working lives should not be considered "long-term" if at the end of the accounting year of each year the company has delivered them in full.

2.20.4. Termination benefits

EPM recognizes as termination benefits, the considerations granted to employees, payable as a result of the company's decision to terminate the employment contract of an employee before the normal retirement date or the decision of an employee to accept the voluntary resignation in exchange for those benefits.

2.21. Service concession arrangements

EPM recognizes service concession arrangements in accordance with the requirements of IFRIC 12 Service Concession Arrangement.

This interpretation is applicable to concessions in which:

- The grantor controls or regulates what services the operator must provide with the infrastructure, to whom it must provide them and at what price.
- The grantor controls, through ownership, right-of-use or otherwise, any significant residual interest in the infrastructure at the end of the agreement term.

The company does not recognize these infrastructures as property, plant and equipment, it recognizes the consideration received in the contracts that meet the above conditions at their fair value, as an intangible asset to the extent that the company receives a right to charge users of the service, as long as these rights are conditional on the degree of use of the service, or as a financial asset, to the extent that there is an unconditional

contractual right to receive cash or another financial asset, either directly from the assignor or from a third party. In cases where the company is paid for construction services partly through a financial asset and partly through an intangible asset, each component of the consideration is accounted for separately.

Financial assets from service concession agreements are recognized in the separate statement of financial position as operating financial assets and are subsequently measured at amortized cost, using the effective interest rate. The evaluation of the impairment of value of these financial assets is carried out in accordance with the policy of impairment of value of financial assets.

Intangible assets from service concession agreements are recognized in the separate statement of financial position as intangible assets called "intangible assets from service concession agreements" and are amortized on a straight-line basis over the term thereof.

Revenue from ordinary activities and costs related to operating services are recognized in accordance with the accounting policy for ordinary income and services related to construction or improvement services in accordance with the accounting policy for construction contracts. The contractual obligations assumed by the company for the maintenance of the infrastructure during its operation, or for its return to the assignor at the end of the concession agreement under the conditions specified therein, to the extent that it does not involve an activity that generates income, It is recognized following the accounting policy for provisions.

2.22. Fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique.

To determine fair value, the company considers the characteristics of the asset or liability in the same way that market participants would take them into account when setting the price of said asset or liability on the measurement date. Fair value for measurement and disclosure purposes in the financial statements is determined on that basis, except for share-based payment transactions, lease transactions, and measurements that have some similarity to fair value but are not fair value. such as net realizable value or value-in-use.

The fair value of all financial assets and liabilities is determined at the date of presentation of the financial statements, for recognition and disclosure in the notes to the financial statements.

The fair value is determined:

- Based on quoted prices in active markets for identical assets or liabilities that the company can access on the measurement date (level 1).
- Based on inputs applied on valuation methodologies commonly used by market participants, which are different from the quoted prices that are observable for the assets or liabilities, directly or indirectly (level 2).
- Based on internal discounted cash flow valuation techniques or other valuation models, using unobservable variables estimated by the company for the asset or liability, in the absence of variables observed in the market (level 3).

Note 43 Measurement of fair value on a recurring and non-recurring basis provides an analysis of the fair values of financial instruments and non-financial assets and liabilities and more detail on their measurement.

2.23. Surplus cash distributed to owner of the Company

The business recognizes a liability to make distributions to the owner of the company in cash when the distribution is authorized and is no longer at the discretion of the business. The corresponding amount is recognized directly in equity.

2.24. Changes in estimates, accounting policies and errors

2.24.1. New and revised standards applied

2.24.1.1. Changes in accounting policies

As of December 31, 2023, the accounting practices applied in the company's separate Financial Statements are consistent with the year 2022, except for the following changes:

New standard implemented

During 2023, the company implemented changes to IFRS (new standards, amendments or interpretations), issued by the International Accounting Standards Board (IASB), which are mandatory for the annual period beginning on January 1, 2023.

IAS1 Presentation of Financial Statements Classification of Liabilities as Current or Non-current

This amendment issued in January 2020, clarifies that the classification of liabilities as current or non-current is based on the rights that existed at the end of the reporting period, it specifies that the classification as current or non-current liabilities is not affected by the expectations about whether or not the entity will exercise the right to defer settlement of the liability, specifies that the rights exist if payment arrangements have been met at the end of the reporting period; Additionally, the amendment clarifies that the settlement of a liability refers to the transfer to the counterparty of cash, equity instruments or other economic resources.

The modification to IAS 1 will be mandatory for annual periods beginning on or after January 1, 2023, retroactively. Permit your anticipate app.

The company did not identify any impacts from the adoption of this amendment.

AS 1 - Disclosure of accounting policies and IFRS Practice Statement 2

This amendment issued in February 2021, requires companies to disclose significant accounting policy information rather than a description of their accounting policies. The amendment also makes an adjustment to Practice Statement 2 Making Materiality Judgments regarding how to apply the concept of materiality to disclosures of accounting policies and adjusts paragraph 21 of IFRS 7 Disclosures of Financial Instruments, specifying the disclosure of significant accounting policies.

The amendment will be mandatory to apply prospectively for annual periods beginning on or after January 1, 2023. Early application is permitted.

The company did not identify any impacts from the adoption of this amendment.

IFRS 4 - Extension of the Temporary Exemption from the Application of IFRS 9

This amendment issued in June 2020, aims to achieve the alignment of the expiration date of the temporary exemption by delaying the application of IFRS 9 and the effective date of IFRS 17 that replaces IFRS 4, given that the IASB concluded that the benefit of expanding the availability of the exemption to continue allowing some insurers to apply IFRS 17 and IFRS 9 for the first time at the same time outweighs the disadvantages of the additional delay of the application of IFRS 9.

The amendment to IFRS 4 adds paragraphs 20A, 20J and 20O, and also made modifications to the Basis for Conclusions of said IFRS by adding footnotes at the end of paragraphs BC267, BC275 and BC276 and adding paragraphs BC277A to BC277C.

The modification to the aforementioned paragraphs allows further extension of the temporary exemption from not applying IFRS 9 for periods beginning before January 1, 2023, the date on which IFRS 17 comes into effect replacing IFRS 4, and in its default may temporarily apply, before said date, IAS 39 Financial Instruments: Recognition and Measurement.

The company did not identify any impacts from the adoption of this amendment.

IAS 8 - Definition of accounting estimates

This amendment issued in February 2021, updates the definition of accounting estimates in order to differentiate changes in estimates from changes in accounting policies, given their prospective or retroactive effect, respectively. To do this, it indicates that accounting estimates are monetary amounts in the financial statements that are subject to measurement uncertainty. Sometimes the application of accounting policy will require the application of estimates.

The amendment is mandatory to apply prospectively for annual periods beginning on or after January 1, 2023. Early application was permitted.

The company is not impacted by this modification because it has been applying the definition of accounting estimates under the same criteria that was specified in the amendment.

AS 12 - Deferred tax related to assets and liabilities arising from a single transaction

This amendment issued in April 2021, clarifies that the exception brought by IAS 12 of not applying deferred tax when an asset or liability is initially and simultaneously recognized, which generates equal temporary differences, would not apply in the case of leases. (IFRS 16) and in the dismantling (IAS 37 and IAS 16), cases in which, if IAS 12 must be applied for deferred tax. The added paragraph 22A provides that, depending on the applicable tax legislation, equal taxable and deductible temporary differences may arise on the initial recognition of the asset and liability in such a transaction. The exemption provided by paragraphs 15 and 24 does not apply to such temporary differences and an entity recognizes any resulting deferred tax liabilities and assets.

This amendment is mandatory for annual reporting periods beginning on or after January 1, 2023. Early application was permitted.

The company did not identify any impacts from the adoption of this amendment.

2.24.1.2. Application of new and revised standards

The changes to the IFRS (new standards, modifications, and interpretations), which have been published in the period, but which have not yet been implemented by the company, are detailed below:

Standard	Mandatory Application Date by IASB	Type of change
IFRS 17 - Insurance Contract	January 1, 2023 Not incorporated in Colombia by the public sector	Law
IFRS 17 - Insurance Contract - Initial application with IFRS 9 and comparative information	January 1, 2023 Not incorporated in Colombia by the public sector	Amendment
IAS 12 - International Tax Reform—Pillar Two Model Rules	January 1, 2023 Not incorporated in Colombia by the public sector	Amendment
IFRS 16 - Leases - Lease liability on a sale-lease	January 1, 2024	Amendment
IAS 1 - Presentation of Financial Statements - Non-current liabilities with agreed terms	January 1, 2024	Amendment
IAS 7 and IFRS 7 - Supplier financing agreements	January 1, 2024	Amendment
IAS 21 - Effects of Changes in Foreign Currency Exchange Rates - Lack of Interchangeability	January 1, 2025	Amendment

IFRS 17 Insurance Contract

Issued in May 2017, replacing IFRS 4 which was addressed as an interim standard, which was being developed in phases.

IFRS 17 solves the comparison drawbacks generated by the application of IFRS 4, since it was allowed to apply local standards and historical values in insurance contracts, now with this new standard, all insurance contracts will be recorded in

a consistent manner and at current values, generating more useful information for stakeholders. This will allow a better understanding of the financial position and profitability of insurance companies, providing a more uniform approach to presentation and measurement for all insurance contracts.

Initially, IFRS 17 was defined as mandatory for annual periods beginning on or after January 1, 2021 but, at the request of international insurers, the IFRS Foundation, through the amendment issued in June 2020, extended its application for two additional years, to be enforceable for annual periods beginning on or after January 1, 2023. Early application was allowed if IFRS 9 is applied. It has not been incorporated in Colombia for public sector companies.

The company is evaluating the impacts that could be generated by the application of this amendment, although it is estimated that the future adoption will not have an impact on the financial statements since this type of transaction is not presented.

IFRS 17 – Insurance Contract - Initial application with IFRS 9 and comparative information

Issued in December 2021, in order to reduce temporary accounting mismatches between financial assets and insurance contract liabilities that may arise in the comparative information presented by the initial application of IFRS 17, when IFRS 9 also applies to the entity, overlapping classification of the financial asset is permitted, in order to improve the usefulness of comparative information for investors.

This will allow insurers to have an option for the presentation of comparative information on financial assets. The classification overlay allows the entity to align the classification and measurement of a financial asset in the comparative information with what the entity expects the classification and measurement of that financial asset to be performed in the initial application of IFRS 9, considering the business model and the characteristics of the cash flow it generates. Any difference for this application would go to retained earnings

If, for example, using classification overlap, an entity presented a financial asset previously measured at amortized cost rather than measured at fair value through profit or loss, the carrying amount of that asset on the date of transition to IFRS 17 would be its fair value measured on that date. Applying paragraph C28D of IFRS 17, any difference in the carrying amount of the financial asset at the transition date resulting from the application of the classification overlap would be recognized at the opening of retained earnings

This amendment adds paragraphs C28A to C28E and C33A; and became effective on the initial implementation date of IFRS 17, which is January 1, 2023. It has not been incorporated in Colombia for public sector companies.

The company is evaluating the impacts that could be generated by the application of this amendment, although it is estimated that the future adoption will not have an impact on the financial statements since this type of transaction is not presented.

IAS 12 - International Tax Reform—Pillar Two Model Rules

This amendment was issued in May 2023 with the purpose of aligning the content of IAS 12 with the implementation of rules of Pillar Two Model Rules published by the Organization for Economic Co-operation and Development (OECD), which establishes at the global level the creation of an "additional and complementary minimum national tax" that will be applied to profits in any jurisdiction as long as the effective tax rate, determined on a jurisdictional basis, is lower than the minimum rate of 15% required by Pillar Two thus avoiding the erosion of the tax base in international transactions operating in a digitalized economy.

Each jurisdiction will determine its second pillar legislation for tax purposes.

This amendment aims to improve the usefulness of the information to the investor through the realization of three key disclosures and in turn, while evolving and knowing the effects of this pillar worldwide on organizations and the market, an exception to recognize and disclose deferred tax assets and liabilities generated by Pillar Two can be temporarily applied. The disclosures set forth in the paragraphs of the standard are: 88A – The entity must disclose whether it applied the Pillar Two exception in the deferred tax (assets and liabilities); 88B – The entity must separately disclose the income and expenses of Pillar Two in the current tax; 88C and 88D – The entity shall disclose the possible impacts or exposure of the entity to the Pillar Two in case there are standards (firm drafts or standards) but are not yet in force, providing qualitative and quantitative information according to the example given in the standard.

The amendments are effective as per the paragraphs, for paragraphs 4A and 88A immediately with retroactive application under IAS 8 and paragraphs 88B to 88D retroactively as of January 1, 2023. It has not been incorporated in Colombia for public sector companies.

The company is evaluating the impacts that could be generated by the application of this amendment, although it is estimated that the future adoption will not have an impact on the financial statements since this type of transaction is not presented

IFRS 16 - Leases - Lease liability on a sale-lease

It is intended to establish the accounting for a sale of a leaseback asset after the transaction date of the sale. .

The amendment specifies the requirements that a seller-lessee must use to quantify the lease liability that arises on the sale and subsequent lease so that the seller-lessee does not recognize any gains or losses related to the right of use that it retains. The amendment is intended to improve the recording requirements for sale and lease under IFRS 16, as IFRS 16 did not specify the measurement of liabilities arising in a sale-lease transaction.

This change will not change the posting of leases that do not arise in a sale transaction with a subsequent lease.

The amendment adds paragraphs 102A, C1D and C20E and amends paragraph C2. A new heading is added before paragraph C20E. New text is underlined, and deleted text is crossed out.

The company is evaluating the impacts that could be generated by the application of this amendment, although it is estimated that the future adoption will not have an impact on the financial statements since this type of transaction is not presented

The amendment will be mandatory prospectively for annual periods beginning on or after January 1, 2024. Early application is permitted.

IAS 1 - Presentation of Financial Statements - Non-current liabilities with agreed terms

This amendment was issued in October 2022 with the purpose of improving the information that companies provide on long-term debt with financial conditions, also known as "covenants", so that the investor can understand the risk they face when a company has liabilities with agreed conditions and that are classified as non-current, but that due to non-compliance with the covenants, the debt must be repaid within twelve months, for which a company is required

to disclose information about these agreements in the notes to the financial statements, improving the information provided on long-term debt with agreed terms, allowing investors to understand the risk that such debt may become repayable early. Accordingly, this amendment requires an entity to review its loan agreements in order to determine whether the classification of the loan agreements will change on the cut-off date, based on the circumstances, data and contexts available at that time, under an informed judgment, and not on management's expectations as set out in paragraphs 74 and 75A.

The amendment adds paragraphs 72B, 76ZA and 139W and amends paragraphs 60, 71, 72A, 74 and 139U. It makes adjustments to the previous amendment to IAS 1 published in January 2020 entitled "Classification of Liabilities as Current or Non-Current" and requires a simultaneous application of these last two amendments in the same period.

If an entity applies such modifications for a prior period after the issuance of Non-Current Covenanted Liabilities (see paragraph 139W), it shall also apply Non-Current Covenanted Liabilities for that period. If an entity applies the classification of Liabilities as Current or Non-Current for a prior period, it will disclose that fact.

The amendments are effective for annual periods beginning on or after 1 January 2024 retroactively in accordance with IAS 8, with early adoption permitted.

The company is evaluating the impacts that could be generated by the application of this amendment, although it is estimated that the future adoption will not have an impact on the financial statements since the event is not expected to occur.

IAS 7 and IFRS 7 - Supplier Financing Agreements

Amendment published in May 2023 to enable users to obtain from financial statements the information they need to understand the effects of supplier financing arrangements on an entity's financial statements and compare entities with others.

The disclosures are intended to provide users with information that allows them to assess how supplier financing arrangements affect an entity's liabilities and cash flows and to understand the effect of supplier financing arrangements on an entity's exposure to liquidity risk and how the entity might be affected if the arrangements were no longer available to it.

The amendment states that arrangements that are solely credit enhancements to the entity (e.g., financial guarantees, including letters of credit used as collateral) or instruments used by the entity to settle amounts owed directly with a supplier (e.g., an entity uses a credit card to settle the amount owed to a supplier and, instead, you will have an obligation to pay the issuing bank) are not supplier financing arrangements.

This amendment requires entities to provide information on these financial obligations arising from specific supplier agreements, including details such as expected settlement timelines, important contractual terms, and any other relevant elements related to these agreements.

The company is evaluating the impacts that could be generated by the application of this modification.

IAS 21 – Effects of Changes in Foreign Currency Exchange Rates - Lack of Interchangeability

This amendment, issued in August 2023, aims to establish a consistent approach when assessing whether a currency is convertible to another currency and if not, what procedure to apply when the conversion does not occur and what type of disclosures must be provided in order to provide useful financial information.

The amendment establishes that a currency is convertible to another currency if there is an exchange for another currency in an administratively normal delay, under a market or exchange mechanism that allows for the generation of enforceable rights or obligations and its amount is not negligible.

The conversion of the currency is given at the time of measurement or for a specific purpose, for which two steps are applied: evaluating whether the currency is convertible and estimating the spot exchange rate. This is given through an assessment question whether the currency is convertible, which, if so, applies the requirements set out in IAS 21 and if not, a spot exchange rate estimate is applied, which represents the exchange rate used in an immediate delivery transaction and between market participants.

The amendment to IAS 21 is mandatory for annual periods beginning on or after January 1, 2025, it does not apply to the restatement of comparative information that rather guidelines are given in its replacement and its early application is allowed.

The company is evaluating the impacts that could be generated by the application of this amendment, although it is estimated that future adoption will not have an impact on the financial statements.

2.25. Presentation Changes

At the end of the 2023 period, changes were made to the presentation of some items in the Statement of Financial Position and, for comparative purposes, 2022 is also adjusted. These changes do not affect decision-making since they basically consist of reclassifications between items in the same financial statement and are intended to make them easier for users to read The items reclassified were as follows:

Concept	Previous presentation	Current presentation	2023	2022
Statement of financial position Non-Current				
Amounts received in advance	Creditors and others accounts payable	Other liabilities		
Resources received in administration	Creditors and others accounts payable	Other liabilities	253	998
Revenue received in advance	Creditors and others accounts payable	Other liabilities	57	57
Statement of financial position Current				
Amounts received in advance	Creditors and others accounts payable	Other liabilities	507	507
Resources received in administration	Creditors and others accounts payable	Other liabilities	4,455	15,369
Revenue received in advance	Creditors and others accounts payable	Other liabilities	1,225	587

- Amounts stated in millions of Colombian pesos -

Note 3.

Significant accounting judgments, estimates and causes of uncertainty in the preparation of the financial statements

The following are the significant judgments and assumptions, including those that involve accounting estimates, that the company's management used in applying the accounting policies under IFRS adopted in Colombia, and that have a significant effect on the values recognized in the financial statements. separate.

The estimates are based on historical experience and based on the best information available on the facts analyzed as of the cut-off date. These estimates are used to determine the value of assets and liabilities in the separate financial statements, when it is not possible to obtain such value

from other sources. The company evaluates its estimates regularly. Actual results may differ from these estimates.

The significant estimates and judgments made by the company are described below:

- **Evaluation of the existence of impairment indicators for assets, goodwill and asset valuation to determine the existence of impairment losses.**

  On each reporting date, the status of the assets is reviewed to determine if there are indications that any have suffered an impairment loss. If there is a loss due to impairment, the recoverable amount of the asset is affected; if the estimated recoverable amount is lower, it is reduced to its recoverable value and the loss due to impairment is recognized immediately in the result of the period.

  The evaluation of the existence of indicators of value impairment is based on external and internal factors, and in turn on quantitative and qualitative factors. The evaluations are based on financial results, the legal, social and environmental environment and market conditions; significant changes in the scope or manner in which the asset or CGU is used or is expected to be used and evidence of the obsolescence or physical deterioration of an asset or CGU, among others.

  Determining whether goodwill has suffered impairment involves calculating the value-in-use of the CGUs to which it has been assigned. The calculation of value-in-use requires the entity to determine the future cash flows that should arise from the CGUs and an appropriate discount rate to calculate the present value. When actual future cash flows are less than expected, an impairment loss may arise.

  See note 11 | Impairment of assets

- **Post-employment obligations to employees.**

  The assumptions and hypotheses used in actuarial studies include: demographic assumptions and financial assumptions, the former refer to the characteristics of current and former employees, they are

related to the mortality rate and turnover rates among employees, the latter they are related to the discount rate, future salary increases, and changes in future benefits.

See note 25 | Employee benefits

- **The useful life and residual values of property, plant and equipment and intangibles assetss.**

  In the assumptions and hypotheses used to determine useful lives, technical aspects are considered such as: periodic maintenance and inspections carried out on assets, failure statistics, environmental conditions and operating environment, protection systems, replacement processes, factors of obsolescence, manufacturers' recommendations, weather and geographic conditions, and the experience of technicians who know the assets. To determine the residual value, aspects such as: market values, reference magazines and historical sales data are considered.

See note 5 | Property, plant and equipment, net

See note 7 | Goodwill and other intangible assets

- **The assumptions used to calculate the fair value of financial instruments, including credit risk.**

  The company discloses the fair value corresponding to each class of financial instrument in the way the comparison with carrying amounts is allowed. The macroeconomic projections calculated within the company are used. The investment portfolio is valued at market price. When there is an absence of this, a similar one is sought in the market and if the following assumptions are not used:

  - Derivatives are estimated at fair value.

    See note 24 | Derivatives and hedges

  - Accounts receivable are estimated at the prevailing market rate for similar loans.

    See note 12 | Trade and other receivables

- Accounts receivable from employees are valued similarly to mass debtors, except for housing loans.

See note 12 | Trade and other receivable

- For equity investments, the methodology is cash flow; It is estimated at market price for those listed on the stock market.

See note 13 | Other financial assets

- **The probability of occurrence and the value of liabilities of uncertain or contingent value.**

The assumptions used for uncertain or contingent liabilities include the qualification of the legal process by the "Expert Judgment" of professionals in the areas, the type of contingent liability, possible legislative changes and the existence of jurisprudence of high courts that apply to the specific case, the existence within the company of similar cases, the study and analysis of the merits of the matter, the existing guarantees at the time of the occurrence of the facts. The company discloses and does not recognize in the financial statements those obligations classified as possible; Obligations classified as remote are not disclosed or recognized.

See note 27 | Provisions, contingent assets and liabilities

- **Future disbursements for decommissioning and asset removal obligations.**

In the assumptions and hypotheses that are used to determine future disbursements for dismantling and asset removal obligations, aspects such as: estimate of future expenditures that the company must incur for the execution of activities associated with dismantling of the assets for which legal or constructive obligations have been identified, the initial date of dismantling or restoration, the estimated date of completion and the discount rates.

See note 27 | Provisions, contingent assets and liabilities

- **Determination of the existence of financial or operating leases based on the transfer of risks and benefits of the leased assets.**

  The significant assumptions that are considered to determine the existence of a lease include the evaluation of the conditions if the right to control the use of the asset is transferred for a period of time in exchange for a consideration, that is, the existence of a lease is evaluated. an identified asset; the right to obtain substantially all of the economic benefits from the use of the asset throughout the period of use; the right to direct how and for what purpose the asset is used throughout the period of use; right to operate the asset throughout the use period without any changes to the operating instructions.

  See note 14 | Leases

- **The recoverability of deferred tax assets.**

  The deferred tax asset has been generated by the temporary differences, which generate future tax consequences in the financial situation of the company. These differences are mainly represented in tax assets that exceed the assets under IFRS adopted in Colombia, and in tax liabilities, which are lower than the liabilities under IFRS adopted in Colombia, as is the case of the pension liability components, amortized cost of bonds, finance leases and other miscellaneous provisions and for contingencies.

  The deferred tax asset of the company is recovered in the liquid income taxed on the current income tax generated.

  See note 39 | Income tax

- **Determination of impairment of trade receivables.**

  To calculate the expected credit loss, each obligation is assigned an individual probability of non-payment that is calculated from a probability model that includes sociodemographic, product, and behavioral variables.

  The model will be applied based on the table of scores (Scorecard) developed considering the information of the company. The models are defined according to the information available and the

characteristics of the population groups for each one. Although the methodology is applied to all accounts with a balance, some exclusions must be considered, such as: written-off accounts; self-consumption; contributions; public lighting and third-party collections in general. For its calculation, the moment from which it is considered that an obligation was breached and will not be recovered is previously defined.

To calculate the credit loss of trade and other receivables (except accounts receivable between related parties) the following formula is used:

$$PE = SE \times PI \times PDI$$

Where, **Exposed Balance of the Asset (SE):** corresponds to the principal balance, interest balance, and other current charges of the obligations. **Probability of Default (PI):** corresponds to the result of a statistical model that provides the probability that each account defaults in the following twelve months. This individual probability is located within a range found to smooth out fluctuations in the value of the general provision from one month to the next and stabilize its behavior, resulting in a standard **PI per range.**

Loss given default (PDI): it is defined as the economic deterioration that the entity would incur in the event that any of the default situations materialize. It is a percentage obtained as a result of the historical analysis of the balances in default and their respective monthly collection, which is applied to the population according to their payment behavior.

See note 12 | Trade and other receivable

Revenue estimate

The company recognizes the income originated by the sale of goods and the provision of services to the extent that the performance obligations are satisfied by the company, regardless of the date on which the corresponding invoice is prepared. To make this estimate, It takes the information from the contracts or agreements with the clients and thus the value to be recognized in the income is established.

When there is uncertainty about the moment in which the income must be recognized, the company recognizes the income at the moment in which the performance obligation is fulfilled, for those performance obligations that are satisfied over time it is common to use the resource method calculated as executed costs compared to estimated costs.

For concepts other than the provision of home public services, the company estimates and recognizes the value of income from the sale of goods or provision of services based on the terms or conditions of interest rate, term, among others, of each contract. that causes the sale.

In the month after the estimated income is recorded, its value is adjusted by the difference between the value of the real income already known against the estimated income.

Risks and uncertainty arising from climate change

Considering that the largest participation in the energy market that EPM has in Colombia, is from hydraulic generation that can be affected by climate changes, currently in the business financial scheme we have a risk hedge called "Climate Derivative" whose objective is to count with the hedge of protection of the risk in income due to the occurrence of extreme climatic events that affect the rainfall and therefore the contractual commitments of energy generation. It also serves to protect exposure to risk from purchasing energy on the stock market in said periods, which consequently also increases.

It is important to highlight that under this hedge, all the impact that the company could receive due to non-generation and non-compliance with contractual commitments is transferred to the reinsurance market.

Note 4.

Significant transactions carried out and other relevant aspects that occurred during the period

As of December 31, 2023, significant transactions and other relevant aspects that occurred during the period, other than those of EPM's normal course of business, are related to:

4.1. Expenses and others related to the contingency of the Ituango hydroelectric plant

- The progress of the works for the commissioning of the Project continues according to the proposed schedules.
- Hidroituango is 92.56% complete (December 31, 2022: 90.35%).
- Cost and progress of the construction of the Ituango Hydroelectric Power Plant for $6,750,357.

See note 5 | Property, plant and equipment, net

Regarding the contingency, EPM has recognized the following items in its separate financial statements as of December 31, 2023:

- Balance of provision for $37,584 for the aid of those affected in Puerto Valdivia, for compensation for consequential damages, loss of profits and moral damages, due to the rising waters of the Cauca River as a result of the blockage of the project on April 28, 2018. During 2023, the

provision was adjusted by $6,730 as a provision expense and financial expense, and payments have been made for $3,285.

See note 27.1.5

- Balance of provision for $38,656 for environmental and social contingency, established by the specific action plan for the recovery of the parties affected by the events of the blockage of the Cauca River diversion tunnel that the project had on April 28, 2018 and by the closure of gates that decreased the flow of the river downstream of the project. During 2023, the provision was adjusted by $10,832 as a provision expense and financial expense and payments have been made for $28,373.

See note 27.1.1

- Provision balance of $0 for the default from November 2021 to October 2023, to the transporter Intercolombia for the months following the entry into operation of the connection infrastructure of the Ituango hydroelectric plant. During 2023, the provision has been adjusted by $9,566 for recovery income and $6,119 for financial expenses, and payments have been made for $102,607. On the cut-off date, the obligation was fulfilled.

See note 27.1.4

- Litigation provision balance of $447,576 corresponding to group actions of downstream communities affected by the contingency. During 2023, the provision has been adjusted by $81,821 for provisioning and financial expense and $317 as recovery income, no payments have been made.

- Balance of litigation provision - Penalty clause of Milestone 7, derived from the arbitration award Hidroituango - EPM, in which EPM is ordered to pay for the concept of "Penal Clauses of Enforcement for Breach of Milestones". In December 2023, provision for $781,829 was recognized.

- In addition, other expenses of $482 and $24 have been recognized in the comprehensive income statement during 2023 as recovery income for the care of the community affected by the contingency.

4.2. Arbitration court instituted by Sociedad Hidroeléctrica Ituango against EPM

Within the framework of the Arbitration court instituted by Sociedad Hidroeléctrica Ituango S.A. E.S.P – Hidroituango – Hidroituango – against EPM, on December 7, 2023, the award was issued, in which it was declared that EPM had breached the BOOMT (Build, Own, Operate, Maintain and Transfer) Contract. As a result of the declaration of non-compliance, the Court ruled that EPM is obliged to assume the costs, increased costs and expenses of all kinds, including financial expenses due to the cause or occasion of the collapse of the diversion work called Auxiliary Diversion System - SAD - and its Auxiliary Diversion Gallery - GAD - (called Contingency Costs). until its complete overcoming and restitution. This means that EPM will not be able to transfer these costs to be incorporated into the actual cost of the project for the purposes of calculating the remuneration to Hidroituango; however, this did not imply any recording in the Financial Statements.

In addition, the arbitration court ordered EPM to pay Hidroituango $781,829 million pesos, for the concept of the "Penal Clauses of Enforcement for Breach of Milestones". Specifically, non-compliance with Milestone 7 of the BOOMT Contract, relating to the "closing of gates and beginning of the filling of the reservoir", was declared. The Court indicated that this sum of money could be paid, at EPM's option, in money or be discounted as a lower cost of the project for the purposes of calculating the remuneration. After a rigorous analysis, EPM decided and communicated to Hidroituango on December 22, 2023, that it chose to pay the sum, as a lower value of the project cost for the purposes of calculating the remuneration. This obligation was recognized in EPM's Financial Statements as of December 2023 as a provisioned expense in the comprehensive income statement and as a provisioning liability in the statement of financial position. In this way, with the information in force to date, there is no impact on the company's liquidity in the medium term and no additional sources of financing are required.

4.3. Construction of the final civil works of Hidroituango (generation units from 5 to 8)

On December 20, 2023, the order was given to start the CYS Consortium (made up of: Yellow River CO., LTD Sucursal Colombia and Schrader Camargo S.A.S.), which was selected through the CW 276532 process and awarded on October 11, for an approximate value of 1 trillion seventy-five billion pesos and will have an execution period of 1,125 calendar days.

Note 5.

Property, plant and equipment, net

The following is the detail of the carrying amount of property, plant and equipment:

Property, plant and equipment	2023	2022
Cost	40,477,209	37,145,450
Accumulated depreciation and impairment loss	(6,443,125)	(5,705,815)
Total	34,034,084	31,439,635

-Amounts stated in millions of Colombian pesos-

The following is the detail of the carrying amount of property, plant and equipment that is temporarily out of service:

Property, plant and equipment temporarily out of service	2023	2022
Networks, lines and cables	2,057	1,285
Plants, ducts and tunnels	34,766	44,774
Land and buildings	17,279	17,524
Machinery and equipment	201	160
Communication and computer equipment	4	5
Other properties, plant and equipment	1	1
Total property, plant and equipment temporarily out of service	**54,308**	**63,749**

-Amounts stated in millions of Colombian pesos-

The main variation is due to the entry into operation of the plants, ducts and tunnels, specifically assets associated with the Regional and National Transmission System, which for 2022 had a book value of $9,422.

The company owns property, plant and equipment that have been withdrawn from use and that have not been classified as non-current assets held for sale corresponding to: the Sonson1 and Sonson2 plants that are projected to come into operation on February 27, 2025, the Rio Piedras plant that went from Generation to Water Supply, which has as a business strategy to recover the mini plant, the Cucarachos Los Naranjos pumping station that is expected to be modernized, the land of the Porce IV and Espíritu Santo projects that has not yet been commissioned and assets of different substations that are temporarily out of service waiting to be used; The carrying amount of these assets is as follows: for 2023 the cost amounts to $195,945 (2022: $117,233), the accumulated depreciation is $141,618 (2022: $53,469), the accumulated impairment is $41 (2022: $23) and the impairment depreciation is $22 (2022: $8).

The movement of cost, depreciation, and impairment of property, plant and equipment is detailed below:

2023	Networks, lines and cables	Plants, ducts and tunnels	Construction in progress [3]	Land and buildings	Machinery and equipment	Communication and computer equipment	Furniture and fixtures and office equipment	Other property plant and equipment [3]	Total
Initial balance cost	7,723,392	10,888,321	8,961,819	8,631,519	247,571	259,525	117,650	315,653	37,145,450
Additions3	34,843	36,212	3,305,194	3,553	11,964	30,485	272	64,532	3,487,055
Advances delivered (amortized) to third parties	-	-	58,886	-	-	-	-	-	58,886
Transfers (-/+) [4]	858,295	1,872,449	(3,053,031)	234,338	10,801	2,877	30	(39,464)	(113,705)
Disposals (-) (sales)	-	-	-	(728)	-	-	-	(331)	(1,059)
Derecognition	(26,993)	(15,686)	(514)	(590)	(11,327)	(27,219)	(257)	(2,153)	(84,739)
Other changes	70,524	(64,850)	(17,765)	(5,158)	3,184	(215)	-	(399)	(14,679)
Final balance cost	**8,660,061**	**12,716,446**	**9,254,589**	**8,862,934**	**262,193**	**265,453**	**117,695**	**337,838**	**40,477,209**
Initial balance, accumulated depreciation and impairment loss									
Initial balance, accumulated depreciation and impairment loss	(2,167,487)	(2,339,579)	-	(760,267)	(131,400)	(160,232)	(62,914)	(83,936)	(5,705,815)
Charge depreciation for the period	(252,819)	(322,256)	-	(150,187)	(18,486)	(32,526)	(3,455)	(7,374)	(787,103)
Disposals (-) (sales)	-	-	-	217	-	-	-	287	504
Derecognition	17,388	13,107	-	329	11,055	26,995	256	1,851	70,981
Other changes	(10)	1,667	-	(20,876)	(2,239)	208	(42)	(400)	(21,692)
Final balance, accumulated depreciation and impairment loss	**(2,402,928)**	**(2,647,061)**	**-**	**(930,784)**	**(141,070)**	**(165,555)**	**(66,155)**	**(89,572)**	**(6,443,125)**
Total final balance property, plant and equipment, net	**6,257,133**	**10,069,385**	**9,254,589**	**7,932,150**	**121,123**	**99,898**	**51,540**	**248,266**	**34,034,084**
Advances delivered to third parties									
Initial balance	-	-	48,393	-	-	-	-	497	48,890
Movement (+)	-	-	80,620	-	-	-	-	-	80,620
Movement (-)	-	-	(21,734)	-	-	-	-	-	(21,734)
Final balance	**-**	**-**	**107,279**	**-**	**-**	**-**	**-**	**497**	**107,776**

2022	Networks, lines and cables	Plants, ducts and tunnels	Construction in progress [3]	Land and buildings	Machinery and equipment	Communication and computer equipment	Furniture and fixtures and office equipment	Other property, plant and equipment [3]	Total
Initial balance cost	7,075,105	8,294,893	12,048,255	5,029,689	240,592	236,368	98,544	297,171	33,320,617
Additions3	29,976	31,034	3,736,447	5,040	8,601	32,634	1,972	68,665	3,914,369
Advances delivered (amortized) to third parties	-	-	(10,494)	-	-	-	-	-	(10,494)
Transfers (-/+) [4]	624,068	2,556,401	(6,814,507)	3,617,059	22,667	782	8,270	(32,679)	(17,939)
Disposals (-) (sales)	-	-	-	(227)	-	-	-	(1,257)	(1,484)
Derecognition	(13,649)	(14,214)	(34)	(1,708)	(5,511)	(10,549)	(466)	(1,954)	(48,085)
Other changes	7,892	20,207	2,152	(18,334)	(18,778)	290	9,330	(14,293)	(11,534)
Final balance cost	**7,723,392**	**10,888,321**	**8,961,819**	**8,631,519**	**247,571**	**259,525**	**117,650**	**315,653**	**37,145,450**
Initial balance, accumulated depreciation and impairment loss									
Initial balance, accumulated depreciation and impairment loss	(1,955,494)	(2,124,808)	-	(704,372)	(119,335)	(140,281)	(60,539)	(79,266)	(5,184,095)
Charge depreciation for the period	(220,318)	(224,411)	-	(54,872)	(17,884)	(30,118)	(2,705)	(6,363)	(556,671)
Disposals (-) (sales)	-	-	-	-	-	-	-	1,083	1,083
Derecognition	8,955	9,355	-	887	5,290	10,349	368	1,468	36,672
Other changes	(630)	285	-	(1,910)	529	(182)	(38)	(858)	(2,804)
Final balance, accumulated depreciation and impairment loss	**(2,167,487)**	**(2,339,579)**	**-**	**(760,267)**	**(131,400)**	**(160,232)**	**(62,914)**	**(83,936)**	**(5,705,815)**
Total final balance property, plant and equipment, net	**5,555,905**	**8,548,742**	**8,961,819**	**7,871,252**	**116,171**	**99,293**	**54,736**	**231,717**	**31,439,635**
Advances delivered to third parties									
Initial balance									
Movement (+)	-	-	58,887	-	-	-	-	497	59,384
Movement (-)	-	-	26,185	-	-	-	-	-	26,185
Final balance	-	-	(36,679)	-	-	-	-	-	(36,679)
Final balance	**0**	**0**	**48,393**	**0**	**0**	**0**	**0**	**497**	**48,890**

-Amounts stated in millions of Colombian pesos-

[1] *Incluye capitalización de costos por préstamos por $188,615 (2022: $380,066), la tasa promedio ponderada utilizada para determinar el monto de los costos por préstamos fue del 9.84% (2022: 10.72%) en pesos y la tasa en dólares 4.51% (2022: 4.50%). Adicionalmente, incluye activos por derecho de uso asociados a las construcciones en curso que ascienden a $2,611 (2022: $3,889).*

Los principales proyectos en construcción que se tienen son los siguientes:

Project	2023	2022
Future Ituango Hydroelectric Power Plant [1,1]	6,751,530	6,853,978
Project Merchandise	286,068	227,013
TEPUY Photovoltaic Solar Park	262,450	33,939
Replacement of posts and traps	164,157	120,119
Expansion and Reinforcement of the Eastern Machado Pipeline	151,981	96,797
Primary Distribution in the Western Sector of Medellín Cadena Occidente	139,664	132,868
Adaptation of the drinking water plant	131,050	88,867
Caldas - La Estrella Interconnection	99,602	36,677
Medium Voltage Quality Improvement	66,463	37,159
Guatapé Modernization	58,286	23,806
Yulimar Manantiales Circuit Expansion	55,733	31,493
Modernization of the Manantial Plant	46,727	38,578
Residential Water Network System Modeling	31,591	23,837
Expansion Quality Service	31,123	1,511
Interventions Quality Services	29,239	10,183
Client Connection	28,186	18,716
Santo Domingo Project	27,643	27,635
Pipelines-Infrastructure	27,056	26,717
WWTP Girardota	23,584	12,827
Copacabana WWTP	23,179	55
Measurement Code	22,340	23,888
Caldas Substation	21,554	6,883
Removal of PSMV Downloads	19,030	9,813
Biogas Technology WWTP San Fernando	18,545	8,676
High Loadability Solution In Eastern Antioquia Substation Grids	17,923	2,329
SDL Expansion E.R Coverage	16,779	20,323
Urabá Nueva Colina Apartado Substation Connection	15,530	67,733
Replacement of secondary networks asbestos cement	15,362	17,775
Caracolí Minipower Plant	14,066	42,676
Trafos Projects	13,740	11,186
North Iguaná Basin	13,409	9,895
Loss Management	12,990	12,985
Castilla Bello Circuit	12,947	10,522
Coverage Expansion Plans	12,537	22,642
Modernization of the Tasajera Transmission System	11,736	9,850
Ayurá Plant Modernization	11,268	42,928
Pumping Construction Infrastructure Optimization	10,969	7,897
Miraflores Substation Modernization	10,777	1,888
High Load ability Solution In Eastern Antioquia Networks Lines	10,150	982
Medium Voltage Insulated Cables	10,100	1,075
Collector and Replacement of La Estrella Networks	9,996	5,149
Four Corners Tank	9,953	9,953
Porvenir Circuit	9,212	3,037

Public Lighting Expansion	9,037	3,563
Modernization of the Niquía Hydroelectric Power Plant	8,853	3,174
South Interceptor	8,821	40,296
Cordoba Substation Modernization	8,753	98
Primary Networks and Pumping Aqueduct Orphanage Tank to Villa Hermosa Plant	8,715	6,666
La García Basin	7,344	18,124
Access to Distribution Networks Water Supply in Difficult to Manage Areas	7,313	12,063
Construction of the San Nicolas Rionegro Valley	6,830	10,969
Sewer Gap Closing	6,042	14,400
Access Distribution Networks Wastewater Management in Difficult to Manage Areas	5,924	11,738
Switching from luminaires to LED	5,154	15,260
Envigado Sector Capiro Expansion	3,432	58,925
Miraflores Dam Update	2,149	78,177
Chigorodó Substation Modernization	1,710	8,994
Modernization of the El Buey-Piedras-Pantanillo catchment	1,195	22,150
Quebradona Mine Connection (MCQ)	455	12,493
Rodeo Substation Catchment Expansion	105	30,814
Other projects [1,2]	406,532	421,055
Total	**9,254,589**	**8,961,819**

-Amounts stated in millions of Colombian pesos-

[1,1] As of December 31, 2023, the Hidroituango plant had a physical progress of 92.56% complete (2022: 90.35%), the physical progress presented as of the date of the period on which the separate financial statements are reported corresponds to the January 2023 version of the schedule, which includes the effects that the Project has suffered due to the health emergency caused by COVID-19, in addition, to the extent that inspections are carried out on the missing and post-contingency work fronts, the requirements for additional work are defined to guarantee the stability of the Project, a situation that forced to reconfigure longer terms and include additional work activities in the schedule.

In January 2023, the contractor Schrader Camargo continued with the civil works necessary for the entry into operation of units 3 and 4, advanced with the following activities: The construction of the lower elbow of pipeline No.4 was completed, the concrete of the straight section of pipeline No.3 was completed, and unit 3 was delivered to the contractor GE. The assembly of the elevator in the north services building was 88% complete.

In February 2023, the pouring of slab 217.45 of unit No. 4 was carried out, the concrete of the straight section of pipeline No.3 was completed, the civil works of unit 4 were handed over to the contractor GE to continue the equipment assembly works, the assembly of the elevator in the north services building was completed, in the turbine of the U3 ¬ progress was made with the assembly of the upper deck, the cylindrical valve and its servo motors and in the U4 turbine, ¬ positioning of the hydraulic unit level 211.90 was carried out, as well as the descent to level 199 of the 4 segments of the lower deck.

In March 2023, the connecting gantry of the bar gallery 3 with powerhouse was delivered to the contractor GE, the assembly of ferrule 24 in the lower

conduction of unit 4 began, in unit 4, concrete pouring was carried out at the bases of the equipment and stator No.1, 2, 7 and 8, work was resumed to remove material from the Cauca River in the area of discharges 3 and 4, the area of ferrule 24 was freed to give continuity to the civil works, the concrete of embedding ferrules 1 to 4 of the upper pipeline No.3 was completed, in the lower branch 4 concrete pouring of layer 1 for the definitive plug for subsequent assembly of armor of the lower driving elbow, in unit 3 verticality control and leveling of the turbine shaft was carried out, in unit 4 the upper cover with the cylindrical valve was assembled.

In April 2023, the assembly of the armor in pipeline No.3 was completed, positioning of the support cone and operations ring in the shaft of unit 3 was carried out, the concrete pouring in the plug of the upper elbow 3 was completed, assembly of the armor in shaft 3 (lower elbow, vertical shaft, upper elbow) was completed, The rotor unit 3 was ready to descend into the generator enclosure, the machining of the upper deck of unit 4 and the pouring of concrete for embedding ferrule 24 of unit 4 was completed, bathymetry was carried out against discharges 1 and 2, preparations for the heating of the rotor of unit 4 were advanced, Compressed air cleaning was carried out on the stator of unit 4 and electrical tests were carried out on the transformers of bank No.7 and No.8.

In May 2023, in the turbine dismantling covers units 3 and 4, the installation and presentation of turbine dismantling covers in the opening area was carried out, in U3 and Y4, self-compacting concrete of 35 Mpa was poured into the EL.217, 45 slab. In the covers of the U4 generator, the installation of mesh and concrete pouring was carried out for 8 modules of the generator covers, EL.217, 45. In pipeline 4, the shielding of the lower elbow and the straight section was completed, as well as the embedded concrete, in bar galleries 3, 35 Mpa self-leveling concrete was poured for restitution of supports, for anchoring insulated phase bar ducts. In unit 3, the installation of the distributor servo motor on the north side, in Rotor-Stator U3, in addition to the lowering of the rotor to unit 3, as well as the positioning of the upper bracket and the anchor pins and bolts, in addition, the installation of the upper cover of the unit, mechanical rotation of the assembly (RUN OUT) was carried out for linear verification and concentricity to the rotor assembly, U4 shaft and impeller and turbine shaft and impeller assembly.

In June 2023, the cutting of slabs 424.5 and 435 in gate shaft 3 was completed, for the entry of demolition teams concrete plug, the cutting of slabs 424.5 and 435 in gate shaft 4 was completed, for the entry of demolition teams concrete plug, the concrete pouring of the plug in the upper elbow No.3 is completed, the arrival at the site of the mechanical bulkhead for the upper conduction No.3 is recorded, the assembly of the mechanical bulkhead for catchment 3 began, in unit 3, the definitive positioning of the external tank and thrust bearing was carried out, in addition to the pouring of tertiary concrete in corbels and thrust bearing, in unit 3, was completed, The leveling and alignment of servo motors of the distributor was completed, on the north and south side, insulation resistance tests and electrical tests were carried out on the rotor of unit 4, descent of the rotor assembly of unit 4 from the assembly room to the generator enclosure (definitive site).

In July 2023, the mechanical bulkhead for catchment 3 was assembled, the immersion of the mechanical bulkhead of catchment 3 was carried out, its leveling and final alignment was completed and the fixing of the ring platens began, the arrival at work of the mechanical bulkhead for upper conduction No.4 was recorded, the assembly of the mechanical bulkhead for catchment 4 began, completed the lowering and coupling of the generator rotor of unit 4, completed the hot-tapping drilling in upper conduit 3, completed the run-out of generation unit 4, completed the assembly of the generator and the assembly of the turbine of unit 3.

In August 2023, in unit 3, the activities corresponding to the assembly stage (100%) were completed, which includes: embedded equipment, turbine, generator, electrical systems and instrumentation, mechanical systems and insulated phase pipes and ducts, in unit 4, the assembly of the embedded equipment was completed, the remaining parts are 96.4% complete (turbine, generator, electrical and mechanical systems), the isolated phase ducts an advance of 95.2%, the assembly of the shielding and concretes in conduits 3 and 4 (lower elbow, vertical shaft and upper elbow) was completed, the pouring of the definitive concrete plugs located in upper bends 3 and 4 was completed, the "hot tapping" perforations for the demolition of the temporary concrete plugs of upper conduits 3 and 4 were completed, The construction of the system for the management of infiltration water was completed, in addition, the entry and installation of equipment for the demolition of the temporary plug in pipes 3 was carried out, the fixing in the rock of the bulkheads of catchments 3 and 4 was carried out, by means of the fixed stops with the installed bolts.

In September, units 3 and 4 completed the activities corresponding to the assembly stage that includes: embedded equipment, turbine, generator, electrical systems and instrumentation, mechanical systems and insulated phase pipes and ducts, in units 3 and 4 the dry tests were completed, in upper pipes 3 and 4 the installation of the mechanical bulkheads as well as the injection of grouting was completed, In addition, underwater activities were freed to proceed with the depressurization in the upper conduits 3 and 4, the depressurization process was carried out in the upper conduit 3, the demolition of the temporary concrete plug in the upper conduit 4 was completed, the demolition of the temporary concrete plug began, presenting an advance of 71% (231 m^3), in the upper pipeline 3, the concrete repairs were completed, the removal of industrial networks is in process, the contracting process for "Slope stabilization works of km 0+900 left bank substitute road of the Ituango Hydroelectric Project" was awarded to the firm Estyma Estudios y Manejo S.A, the contracting process for civil works for the plugging of the right diversion tunnel and closure of the diversion of the Ituango Hydroelectric Project" to the firm Schrader Camargo S.A.S.

In October, the civil works inside the upper conduits 3 and 4 were completed, with which the removal of the mechanical bulkheads began, the demolition of the temporary concrete plugs in conduits 3 and 4 was completed, then the filling of upper conduits 3 and 4 began, Water tests were carried out in generation units 3 and 4, successfully completing the synchronization of both units. After performing the sequence tests in automatic start and load rejection, 1200 MW were generated with the 4 synchronized units. Unit 3 began commercial operation on October 28, 2023 at 0:00 a.m. and Unit 4 began commercial operation on October 31, 2023 at 6:00 p.m. Subsequently, they were registered in the National Interconnected System, for which the operator XM Compañía de Expertos en Mercados S.A. E.S.P. approved their commissioning since they complied with the regulatory requirements of the country. In addition, on October 23, 2023, the contract for the plugging of the right diversion tunnel – TDD with the firm Schrader Camargo S.A.S. began.

For the construction of the final civil works for the entry into operation of units 5 to 8, EPM accepted the offer of the CYS Consortium (made up of: Yellow River Co., Ltd. Sucursal Colombia, and Schrader Camargo S.A.S.) on October 11, 2023, whose final value was $1,075,895.

In November, the contractor Schrader Camargo S.A. carried out the provisional installations of equipment and supplies for the execution of works in the Capitanes sector associated with the contract for the plugging of the right diversion tunnel – TDD, the launch of spheres in pre-plug 2 was restarted and the pumping tests of plastic filter material for the definitive plugging of the TDD were completed. The contract for the stabilization of the slope at km 0 + 900 on the dam-Ituango substitute road was initiated with the firm Estyma Estudios y Manejos S.A., carrying out the mobilization and installation of the contractor and progress was made in the assembly of the cooling system of generating units 5 to 8.

In December, the civil works activities for the assembly of units 3 and 4 were completed, therefore, the contract with the firm Schrader Camargo S.A.S. was terminated, subsequently on December 20, 2023, the order was given to start the CYS Consortium for the construction of the final civil works for the entry into operation of units 5 to 8. Currently, activities are being carried out to mobilize equipment and adapt facilities, in the contract for the plugging of the right diversion tunnel – TDD continued with the mobilization of equipment, adaptations of facilities in the Capitanes square and concrete plant. In pre-plug 2, the filling of the annular space in the micropiles began, in micropile N°50 water tests were carried out and the assembly of the platform of the primary pumping system continued. In addition, a topographic survey of the state of the infiltration channel on the left bank of the TDI was carried out. In the stabilization of the slope at km 0 + 900, a substitute road on the left bank of the Ituango project, the contractor's mobilization, adaptation, cleaning, loading and removal of material in the drainage gallery and zones A and D of the slope continued.

Due to the entry into operation of units 3 and 4 of the Ituango Power Plant, the accounting transfer of the assets that came into operation for a value of $1,597,981 was carried out.

[1,2] Other projects: it is due to the other projects that the company has, of which the most significant are Robledo WWTP Modernization for $8,605, Chorodo Line - Rubber 110 k for $8,265, among others.

[2] Includes equipment and vehicles from the automotive fleet, medical and scientific equipment, properties, plant and equipment in assembly, properties, plant and equipment in transit, replacement assets, transportation, traction and lifting equipment, dining room, kitchen, pantry and hotel equipment.

[3] It includes purchases, capitalizable disbursements that meet the recognition criteria, goods received from third parties and costs for dismantling and removing elements of property, plant and equipment. At the end of December 2023 and December 2022, no subsidies were received from the Government.

[4] Corresponds to the transfers to operation among which the most representative is due to the Ituango project for a value of $1,597,981.

The additions of property, plant and equipment for $3,487,055 (2022: $3,914,369) lees the movement of advances of $58,886 (2022: -$10,494), capitalized interest on debt of $188,615 (2022: $380,066), environmental and decommissioning provisions of $227,966 (2022: $102,333), as of 2023, capitalizable depreciation is included $16,287 and compensation for damage assets -$94.

The assets subject to operating leases are the following: networks, lines and cables, electrical infrastructure for the installation of networks by telecommunications operators, specifically poles. Plants, pipelines, tunnels, contract for the connection of Ecopetrol to the STN (Medio Magdalena Substation) with a net carrying amount of $49,682.

At the end of the period, an impairment test was carried out on the assets that are linked to the Generation, Distribution, Transmission, Gas, Water Supply and Wastewater Management CGU and that have registered intangible assets with an indefinite useful life, which did not show impairment of value.

As of December 31, 2023, there are restrictions on the realization of property, plant and equipment, associated with some equipment of the vehicle fleet for a net carrying amount of $1 (2022: $2). These restrictions are due to theft and have been affected as a guarantee for the fulfillment of obligations

The most significant commitments for the acquisition of property, plant and equipment of the company as of December 31, 2023 amount to $3,974,530 (2022: $3,163,360).

The following is the historical cost of fully depreciated property, plant and equipment that continues in operation as of December 31, 2023 and 202s.

Group	2023	2022
Networks, lines and cables	3,179	7,579
Plants, ducts and tunnels	42,146	26,818
Buildings	4,264	4,762
Machinery and equipment	8,638	14,156
Communication and computer equipment	17,847	25,736
Furniture, Fixtures and Office Equipment	3,757	5,291
Other property, plant and equipment	5,588	4,047
Total	**85,419**	**88,389**

-Amounts stated in millions of Colombian pesos-

Note 6.

Investment property

The fair value of investment properties is based on an appraisal carried out by experts who have recognized professional capacity and recent experience on the category of real estate investments object of the valuation; This value has been determined by appraisers from EPM's Real Estate Asset Negotiation and Administration Unit, who have the certificate of registration in the Open Registry of Appraisers, this activity is carried out at least once a year. To determine the fair value of investment properties, the comparative or market method is used, which consists of deducting the price by comparing transactions, supply and demand, and appraisals of similar or comparable properties, prior time adjustments, conformation, and location; the residual method, which is applied only to buildings and is based on the determination of the updated construction cost less depreciation due to age and state of conservation; and the rental method, which is used to determine the possible value of an asset according to its ability to generate income, taking into account the probable value of the monthly fee that tenants would be willing to pay in the rental market. (See note 43 Fair value measurement on a recurring and non-recurring basis.

Investment properties	2023	2022
Initial balance	169,286	152,339
Net gain or loss on fair value adjustment	9,863	17,124
Disposals - sales (-)	-	(175)
Final balance	**179,149**	**169,288**

-Amounts stated in millions of Colombian pesos-

The valuation obtained has been adjusted for the purpose of being used in the financial statements, as shown in the following reconciliation:

Concept	2023	2022
Market amount estimated by independent appraiser	179,149	169,288
Fair value for financial reporting purposes	**179,149**	**169,288**

-Amounts stated in millions of Colombian pesos-

As of December 31, 2023, investment property lease income for the period was $590 (2022: $494) and direct investment property expenses for the period were $315 (2022: $264.

As of December 31, 2023, there are restrictions on the property located in the Mamatoco sector of the municipality of Santa Marta, a direct reparation process is currently underway against said municipality, due to the fact that due to omission of the municipal administration, a process of massive invasion of the property, which makes it difficult to recover it through police protection processes; the fair value is $1,392 (2022: $1,392).

Note 7.

Goodwill and other intangible assets

The following is the detail of the carrying amount of intangible assets:

Intangibles	2023	2022
Cost	**1,649,734**	**1,464,889**
Goodwill	260,950	260,950
Concessions and franchises	505,233	496,384
Rights	98,675	8,488
Licenses	127,143	122,699
Software	367,921	334,232
Easements	193,182	181,611

Disbursements Development Phases	95,245	59,140
Other intangible assets	1,385	1,385
Accumulated amortization and impairment loss	**(660,300)**	**(586,139)**
Concessions and franchises	(342,815)	(328,576)
Rights	(3,745)	(2,936)
Licenses	(77,681)	(69,142)
Software	(234,035)	(183,568)
Easements	(1,259)	(1,244)
Other intangibles	(765)	(673)
Total	**989,434**	**878,750**

-Amounts stated in millions of Colombian pesos-

The movement of cost, amortization and impairment of intangible assets is detailed below:

2023	Goodwill	Concessions and similar rights	Capitalized development disbursements	Software and computer applications	Licenses	Rights	Other intangible assets [1]	Total
Initial balance cost	260,950	496,384	59,140	334,232	122,699	8,488	182,996	1,464,889
Additions [2]	-	437	42,292	28,469	5,937	-	34	77,169
Transfers (-/+)	-	8,619	(6,187)	6,588	1,877	90,187	12,621	113,705
Derecognition	-	-	-	(1,368)	(2,384)	-	-	(3,752)
Other changes	-	(207)	-	-	(986)	-	(1,084)	(2,277)
Final balance cost	**260,950**	**505,233**	**95,245**	**367,921**	**127,143**	**98,675**	**194,567**	**1,649,734**
Initial balance accumulated depreciation and impairment	-	(328,576)	-	(183,568)	(69,143)	(2,936)	(1,916)	(586,139)
Charge amortization for the period [3]	-	(14,239)	-	(51,830)	(11,511)	(809)	(1,000)	(79,389)
Derecognition	-	-	-	1,367	2,381	-	-	3,748
Other changes	-	-	-	(4)	592	-	892	1,480
Final balance accumulated depreciation and impairment	**-**	**(342,815)**	**-**	**(234,035)**	**(77,681)**	**(3,745)**	**(2,024)**	**(660,300)**
Final balance intangible assets, net	**260,950**	**162,418**	**95,245**	**133,886**	**49,462**	**94,930**	**192,543**	**989,434**

-Amounts stated in millions of Colombian pesos-

2022	Goodwill	Concessions and similar rights	Capitalized development disbursements	Software and computer applications	Licenses	Rights	Other intangible assets [1]	Total
Initial balance cost	260,950	483,507	30,150	285,640	118,628	8,488	177,602	1,364,965
Additions [2]	-	733	29,280	46,042	4,086	-	1,804	81,945
Transfers (-/+)	-	12,144	-	2,550	-	-	3,244	17,938
Derecognition	-	-	-	-	(4)	-	-	(4)
Other changes	-	-	(290)	-	(11)	-	346	45
Final balance cost	**260,950**	**496,384**	**59,140**	**334,232**	**122,699**	**8,488**	**182,996**	**1,464,889**
Initial balance accumulated depreciation and impairment	-	(304,733)	-	(147,420)	(58,230)	(2,528)	(1,860)	(514,771)
Charge amortization for the period [3]	-	(23,843)	-	(36,110)	(10,900)	(408)	(983)	(72,244)
Derecognition	-	-	-	-	3	-	-	3
Other changes	-	-	-	(38)	(16)	-	927	873
Final balance accumulated depreciation and impairment	**-**	**(328,576)**	**-**	**(183,568)**	**(69,143)**	**(2,936)**	**(1,916)**	**(586,139)**
Final balance intangible assets, net	**260,950**	**167,808**	**59,140**	**150,664**	**53,556**	**5,552**	**181,080**	**878,750**

-Amounts stated in millions of Colombian pesos-

[1] *Includes easements, intangibles related to clients and other intangibles corresponding to premiums at Gas Service Stations.*

[2] *Includes purchases, capitalizable disbursements that meet the recognition criteria, and concessions. In 2021, the purchases associated with capitalized development disbursements were allocated to IT projects: Sentinel Project, Treasury Project and New ERP project.*

[3] *See note 33 Costs for provision of services and note 34 Administrative expenses.*

At the end of the periods, an impairment test was carried out on the assets for those intangibles with an indefinite useful life, which did not show evidence of impairment.

The amortization of intangibles is recognized as costs and expenses in the statement of comprehensive income, section result of the period, in the lines costs for rendering services and administration expenses.

The company's commitments for the acquisition of intangible assets as of the cut-off date amount to $81,605 (2022: $85,247).

Disbursements from research and development projects recognized as expenses in the result of the period during the period amounted to $4,320 (2022: $11,476).

The carrying amount at the cut-off date and the remaining amortization period for significant intangible assets is:

Significant intangible assets	Useful life	Remaining amortization period	2023	2022
Ituango Generation Power Plant Project	Indefinite	-	177,666	177,666
Espíritu Santo	Indefinite	-	82,980	82,980
Corridor 53 Line Easement	Indefinite	-	63,040	63,040
Bello circuit distribution network	Defined	468	37,923	38,671
Easement on Corridor N°12 line	Indefinite	-	30,912	30,912
Easement for Corridor line N°52	Indefinite	-	29,439	29,439
Maximum EAM Software	Defined	168	12,658	13,653
Piedras B Basin Secondary Network	Defined	82	12,177	13,960
Red Dist Itagüí Circuit	Defined	924	11,823	7,628
Easement Lines Corridor 86	Indefinite	-	9,728	9,698

-Amounts stated in millions of Colombian pesos-

The following intangible assets have an indefinite useful life: goodwill and easements, the latter are agreed in perpetuity and as of December 31, 2023 have a book value of $450,909 (2022: $441,317). By definition, an easement is a perpetual or temporary right, perpetual or temporary on a foreign property, by virtue of which it can be used, or certain rights of disposition can be exercised, or the owner may be prevented from exercising some of his property rights. In the company, easements are not treated individually, since they are constituted for public service projects, where the general interest prevails over the particular, considering that the objective is to improve the quality of life of the community; the aforementioned projects do not have a defined temporality, so they are constituted in perpetuity supported in their use.

However, there are some easements with a defined useful life, because they are tied to the useful life of the main asset that the easement requires.

Intangible assets with indefinite useful life	2023	2022
Goodwill		
Ituango Central Generation Project	177,667	177,667
Espiritu Santo	82,980	82,980
Surtigás Necoclí	303	303
Sub-total goodwill	**260,950**	**260,950**
Other intangible assets		
Easements	189,959	180,367
Sub-total other intangible assets	**189,959**	**180,367**
Total intangible assets with indefinite useful life	**450,909**	**441,317**

-Amounts stated in millions of Colombian pesos-

Note 8.

Investments in subsidiaries

he detail of EPM's subsidiaries at the date of the reporting period is as follows:

Name of subsidiary	Location (country)	Main activity	Percentage of ownership and voting rights		Date of creation
			2023	2022	
Empresa de energía del Quindío S.A. E.S.P. EDEQ	Colombia	It provides electric power utilities, purchases, sells, and distributes electric power.	19.26%	19.26%	22/12/1988
Central Hidroeléctrica de Caldas S.A. E.S.P. CHEC	Colombia	It provides public energy services, operating electric power generation plants, transmission and subtransmission lines, and distribution networks, as well as the marketing, importing, distribution and sale of electric energy.	24.44%	24.44%	09/09/1950
Electrificadora de Santander S.A. E.S.P. ESSA	Colombia	It provides public electric energy services, purchase, sale, commercialization and distribution of electric energy.	0.28%	0.28%	16/09/1950
Centrales Eléctricas del Norte de Santander S.A. E.S.P. CENS	Colombia	It provides public electric power services, purchase, export, import, distribution and sale of electric power, construction and operation of generating plants, substations, transmission lines and distribution networks.	12.54%	12.54%	16/10/1952
Caribemar de la Costa S.A.S. ESP AFINIA [1]	Colombia	It provides public services for the distribution and commercialization of electricity, as well as the performance of all related activities, works, services and products.	87.44%	85.00%	1/10/2020
Hidroecológica del Teribe S.A. HET	Panamá	It finances the construction of the Bonyic hydroelectric project, required to meet the growth in energy demand on the Isthmus of Panama.	99.68%	99.68%	11/11/1994

Gestión de Empresas Eléctricas S.A. GESA	Guatemala	It provides advice and consulting to electricity distribution, generation and transportation companies.	99.98%	99.98%	17/12/2004
Aguas Nacionales EPM S.A. E.S.P.	Colombia	It provides domestic public services such as aqueduct, sewerage and sanitation, waste treatment and use, complementary activities, and engineering services typical of these public services.	99.97%	99.97%	29/11/2002
Aguas Regionales EPM S.A. E.S.P.	Colombia	It guarantees the provision of domestic public services such as aqueduct, sewerage and sanitation, and compensates for the lag in the infrastructure of these services in the partner municipalities.	72.45%	72.45%	18/01/2006
Empresa de Aguas del Oriente Antioqueño S.A. E.S.P.	Colombia	It provides domestic public water and sewerage services, as well as other complementary activities specific to each of these public services.	56.01%	56.01%	22/11/1999
Aguas de Malambo S.A. E.S.P. [2]	Colombia	Dedicated to guaranteeing the provision of domestic public services of aqueduct, sewerage and sanitation in the jurisdiction of the municipality of Malambo, department of Atlántico.	98.31%	98.25%	20/11/2010
Empresas Públicas de Rionegro S.A. E.S.P. - EP RIO	Colombia	Provision of domestic public services, including aqueduct and sewerage, as well as complementary and related activities; specifically, the administration, operation, maintenance and investments of the aqueduct and sewerage systems of the Municipality of Rionegro, the execution of programs and projects on the environment and renewable and non-renewable natural resources; to promote their sustainable development. Additionally, the company will provide the maintenance service of the public lighting network of the Municipality of Rionegro.	0.00%	0.00%	9/12/1996
Empresas Varias de Medellín S.A. E.S.P.	Colombia	Subsidiary dedicated to the provision of public sanitation services within the framework of comprehensive solid waste management.	64.98%	64.98%	11/01/1964
EPM Inversiones S.A.	Colombia	Dedicated to the investment of capital in domestic or foreign companies organized as public service companies.	99.99%	99.99%	25/08/2003
Maxseguros EPM Ltd	Bermuda	Negotiation, contracting and management of reinsurance for the policies that cover the assets.	100.00%	100.00%	23/04/2008
Panamá Distribution Group S.A. PDG	Panamá	Capital investment in companies.	100.00%	100.00%	30/10/1998
Distribución Eléctrica Centroamericana DOS S.A. DECA II	Guatemala	It makes capital investments in companies that are dedicated to the distribution and commercialization of electric energy and provides telecommunications services.	99.99%	99.99%	12/03/1999
EPM Capital México S.A. de CV [3]	México	It develops infrastructure projects related to energy, lighting, gas, telecommunications, sanitation, water treatment plants, sewerage, wastewater treatment, buildings, as well as their operation and services.	48.98%	51,28%	04/05/2012
EPM Chile S.A.	Chile	It develops energy, lighting, gas, telecommunications, sanitation, water treatment plants, sewerage and wastewater treatment projects, as well as the provision of these services and participation in all types of tenders.	99.99%	99.99%	22/02/2013
Patrimonio Autónomo Financiación Social [4]	Colombia	It manages the resources and payments of the social financing program created to make it easier for users to purchase household appliances, gas appliances and products related to information technology.	0.00%	100.00%	14/04/2008
EPM Renovables S.A.[5]	Panamá	Carry out administration, planning, strategic activities, participation in investments and businesses of renewable electricity generation and in the production of new sources of green fuels.	100.00%	0.00%	1/08/2023

[1] In September and December 2023, EPM capitalized Caribemar de la costa S.A. E.S.P. for $350,000 and $250,000, respectively.
[2] In March, July and August 2023, EPM capitalized Aguas de Malambo S.A. E.S.P. for $1,000, $600 and $443 respectively.
[3] In November 2023, EPM Capital México S.A. de CV returned contributions of $13,79.
[4] In November 2023, the sale of the Patrimonio Autónomo Financiación Social was made to the company SOMOS servicios integrado S.A. for $280,645.
[5] In December 2023, EPM capitalized EPM Renovables S.A.

The above items are disclosed as part of the acquisition and capitalization of subsidiaries or businesses for $602,043 and include the provision of subsidiaries or businesses for $294,437 that are part of the statement of cash flows.

In subsidiaries in which there is less than a 50% direct stake, control is obtained through the indirect participation held by the other companies of the EPM Group.

The value of investments in subsidiaries at the cut-off date was:

Subsidiary	2023					2022				
	Investment amount					Investment amount				
	Cost	Equity method	Impairment	Dividends [1]	Total	Cost	Equity method	Impairment	Dividends [1]	Total
Caribemar de la costa S.A.S. E.S.P.	2,316,561	958,426	(879,062)	-	2,395,925	1,716,561	740,121	(879,062)	-	1,577,620
Aguas Nacionales EPM S.A. E.S.P.	1,665,513	687,254	-	(61,966)	2,290,801	1,665,513	505,703	-	(26,289)	2,144,927
EPM Inversiones S.A.	1,561,331	762,186	-	(269,322)	2,054,195	1,561,331	691,579	-	(221,498)	2,031,412
Distribución Eléctrica Centroamericana DOS S.A. DECA II	1,009,257	1,093,690	-	(63,645)	2,039,302	1,009,257	1,725,937	-	(135,473)	2,599,721
EPM Chile S.A.	1,044,935	375,528	-	-	1,420,463	1,044,935	652,120	-	-	1,697,055
Panama Distribution Group S.A. PDG	238,116	500,167	-	-	738,283	238,116	621,393	-	(44,118)	815,391
Maxseguros EPM Ltd.	63,784	202,827	-	-	266,611	63,784	243,317	-	-	307,101
Hidroecológica del Teribe S.A. HET	524,536	(187,768)	(86,963)	-	249,805	524,536	(145,951)	(86,963)	-	291,622
Central Hidroeléctrica de Caldas S.A. E.S.P. CHEC	140,663	63,552	-	(38,932)	165,283	140,663	59,405	-	(37,198)	162,870
Aguas Regionales EPM S.A. E.S.P.	60,816	44,302	-	-	105,118	60,816	38,074	-	-	98,890
Empresas Varias de Medellín S.A. E.S.P.	32,967	50,467	-	-	83,434	32,967	81,809	-	(4,328)	110,448
Centrales Eléctricas del Norte de Santander S.A. E.S.P. CENS	57,052	20,129	-	(11,658)	65,523	57,052	26,098	-	(10,429)	72,721
Gestión de Empresas Eléctricas S.A. GESA	25,782	21,797	-	-	47,579	25,782	35,368	-	(7,297)	53,853
Empresa de Energía del Quindío S.A. E.S.P. EDEQ	28,878	21,120	-	(6,681)	43,317	28,878	17,998	-	(7,717)	39,159
Aguas de Malambo S.A. E.S.P.	79,518	(47,135)	(1,641)	-	30,742	77,474	(45,211)	(1,641)	-	30,622
Empresa de Aguas del Oriente Antioqueño S.A. E.S.P.	2,774	5,198	-	-	7,972	2,774	3,837	-	-	6,611
Electrificadora de Santander S.A. E.S.P. ESSA	2,514	1,314	-	(323)	3,505	2,514	1,099	-	(325)	3,288
Patrimonio Autónomo Financiación Social	-	-	-	-	-	61,914	158,739	-	-	220,653
EPM Capital México S.A. de C.V.	163,643	(163,643)	-	-	-	177,436	(176,985)	-	-	451
Total	**9,018,640**	**4,409,411**	**(967,666)**	**(452,527)**	**12,007,858**	**8,492,303**	**5,234,450**	**(967,666)**	**(494,672)**	**12,264,415**

-Amounts stated in millions of Colombian pesos-

[1] *Dividends for $452,527 (2022: $494,672), were declared, and paid in full*

The detail of the equity method recognized in profit or loss for the period and in other comprehensive income for the period is as follows:

Subsidiary	2023			2022		
	Equity method for the period			Equity method for the period		
	Profit for the period	Other comprehensive income	Total	Profit for the period	Other comprehensive income	Total
Distribución Eléctrica Centroamericana DOS S.A. DECA II	414,455	(889,291)	(474,836)	419,166	300,230	719,396
EPM Inversiones S.A.	344,860	(52,757)	292,103	419,732	38,020	457,752
Aguas Nacionales EPM S.A. E.S.P.	231,525	(8,187)	223,338	526,258	(2,074)	524,184
EPM Chile S.A.	207,840	-	207,840	141,766	-	141,766
Panamá Distribution Group S.A. PDG	158,034	(434,625)	(276,591)	(48,065)	311,225	263,160
Maxseguros EPM Ltd	95,210	(172,365)	(77,155)	61,570	127,860	189,430
Hidroecológica del Teribe S.A. HET	41,967	(622)	41,345	49,172	752	49,924
EPM Capital México S.A. de CV	39,384	-	39,384	26,945	-	26,945
Central Hidroeléctrica de Caldas S.A. E.S.P. CHEC	27,011	(67,502)	(40,491)	10,460	54,601	65,061
Patrimonio Autónomo Financiación Social	11,711	(53,528)	(41,817)	(26,795)	47,562	20,767
Empresas Varias de Medellín S.A. E.S.P.	11,535	(697)	10,838	9,409	357	9,766
Centrales Eléctricas del Norte de Santander S.A. E.S.P. CENS	8,600	(4,139)	4,461	16,448	2,487	18,935
Aguas Regionales EPM S.A. E.S.P.	6,228	-	6,228	1,695	-	1,695
Gestión de Empresas Eléctricas S.A. GESA	1,361	-	1,361	719	(3)	716
Empresa de Energía del Quindío S.A. E.S.P. EDEQ	609	(69)	540	646	45	691
Aguas de Malambo S.A. E.S.P.	100	(6,374)	(6,274)	11,557	3,808	15,365
Empresa de Aguas del Oriente Antioqueño S.A. E.S.P.	(1,910)	-	(1,910)	(1,353)	-	(1,353)
Electrificadora de Santander S.A. E.S.P. ESSA	(20,084)	(25,547)	(45,631)	(10,436)	51,519	41,083
Caribemar de la costa S.A.S. E.S.P.	(22,657)	(4,356)	(27,013)	(7,959)	6,856	(1,103)
Total	**1,555,779**	**(1,720,059)**	**(164,280)**	**1,600,935**	**943,245**	**2,544,180**

-Amounts stated in millions of Colombian pesos-

The financial information of the company's subsidiaries as of the reporting period is as follows. All subsidiaries are accounted for by the equity method in the separate financial stateme:

2023	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Revenue from ordinary activities	Profit or loss for the period	Other comprehensive income	Total comprehensive income
						Continued Operations		
Empresa de energía del Quindío S.A. E.S.P. EDEQ	183,549	343,790	126,069	189,444	430,333	59,853	(3,618)	56,235
Central Hidroeléctrica de Caldas S.A. E.S.P. CHEC	348,049	1,212,362	361,885	582,635	1,319,904	171,702	(2,546)	169,156
Electrificadora de Santander S.A. E.S.P. ESSA	595,698	2,063,687	500,532	1,075,600	2,101,180	220,933	(24,912)	196,021
Centrales Eléctricas del Norte de Santander S.A. E.S.P.	415,567	1,257,102	394,876	786,582	1,418,418	68,595	(33,018)	35,577
Hidroecológica del Teribe S.A. HET	52,499	381,949	22,223	138,304	73,603	10,711	(68,968)	(58,257)
Gestión de Empresas Eléctricas S.A. GESA	33,255	40	304	8,147	15,347	100	(6,376)	(6,276)
Caribemar de la Costa S.A.S. ESP AFINIA	2,347,825	3,886,251	1,566,271	922,387	5,960,456	264,782	(9,363)	255,419
Aguas Nacionales EPM S.A. E.S.P.	304,579	2,630,498	58,456	432,738	503,628	276,486	-	276,486
Aguas Regionales EPM S.A. E.S.P.	33,212	250,937	43,727	89,840	89,211	8,558	-	8,558
Empresa de Aguas del Oriente Antioqueño S.A. E.S.P.	8,206	8,687	2,092	565	7,408	2,430	(1)	2,429
Aguas de Malambo S.A. E.S.P.	5,816	40,551	6,155	5,073	19,541	(1,956)	-	(1,956)
Empresas Varias de Medellín S.A. E.S.P.	144,422	308,994	209,419	232,356	326,330	(34,691)	(6,704)	(41,395)
EPM Inversiones S.A.	55,739	1,929,820	3,024	8,282	8	358,106	(39,250)	318,856
Maxseguros EPM Ltd	540,066	187,436	173,111	287,780	58,466	27,011	(67,502)	(40,491)
Panamá Distribution Group S.A. PDG	1,167,853	2,803,752	1,719,622	1,166,372	3,096,493	210,736	(137,072)	73,664
Distribución Eléctrica Centroamericana DOS S.A. DECA II	1,614,346	4,323,387	1,232,257	1,826,997	5,606,301	490,801	(415,094)	75,707
EPM Capital México S.A. de CV	654,752	577,520	467,430	295,527	586,194	10,547	(52,324)	(41,777)
EPM Chile S.A.	412,293	3,855,814	417,119	2,430,806	1,094,607	157,586	(434,655)	(277,069)

-Amounts stated in millions of Colombian pesos-

2022	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Revenue from ordinary activities	Profit or loss for the period Continued Operations	Other comprehensive income	Total comprehensive income
Empresa de energía del Quindío S.A. E.S.P. EDEQ	155,964	251,885	108,131	109,432	355,542	48,817	1,854	50,671
Central Hidroeléctrica de Caldas S.A. E.S.P. CHEC	389,736	1,007,295	280,329	510,668	1,107,980	201,461	3,075	204,536
Electrificadora de Santander S.A. E.S.P. ESSA	579,411	1,981,949	561,300	995,654	1,713,053	234,348	16,477	250,825
Centrales Eléctricas del Norte de Santander S.A. E.S.P.	428,564	1,047,214	326,672	600,475	1,232,159	131,200	19,838	151,038
Hidroecológica del Teribe S.A. HET	56,544	499,941	29,124	195,184	76,506	(27,900)	60,781	32,881
Gestión de Empresas Eléctricas S.A. GESA	31,432	53	316	51	13,119	11,559	3,809	15,368
Caribemar de la Costa S.A.S. ESP AFINIA	1,714,362	2,873,442	1,156,302	541,287	5,414,021	619,127	(2,440)	616,687
Aguas Nacionales EPM S.A. E.S.P.	252,742	2,374,296	61,625	336,033	430,447	232,880	-	232,880
Aguas Regionales EPM S.A. E.S.P.	46,019	216,253	38,006	82,243	84,204	2,305	-	2,305
Empresa de Aguas del Oriente Antioqueño S.A. E.S.P.	6,433	7,515	1,556	586	5,363	1,286	(5)	1,281
Aguas de Malambo S.A. E.S.P.	6,154	40,227	6,202	5,129	17,394	(1,390)	-	(1,390)
Empresas Varias de Medellín S.A. E.S.P.	135,792	313,720	175,966	220,511	287,690	(11,570)	10,550	(1,020)
EPM Inversiones S.A.	48,048	1,884,147	1,304	6,172	-	424,436	(15,025)	409,411
Maxseguros EPM Ltd	548,926	205,874	109,289	338,410	51,274	10,460	54,601	65,061
Panamá Distribution Group S.A. PDG	1,036,747	3,229,804	1,867,434	1,200,692	2,862,249	142,029	115,733	257,762
Distribución Eléctrica Centroamericana DOS S.A. DECA II	1,832,943	5,143,524	1,436,153	2,497,523	5,168,639	414,827	314,749	729,576
EPM Capital México S.A. de CV	598,923	697,824	397,309	369,966	416,618	31,929	100,531	132,460
EPM Chile S.A.	779,868	4,688,262	465,829	3,305,052	842,828	(48,071)	311,261	263,190

-Amounts stated in millions of Colombian pesos-

8.1. Changes in interest in subsidiaries that did not result in a loss of control

During 2023, the following changes were made to the participation of subsidiaries:

Caribemar de la costa S.A. E.S.P. increased to 87.44% due to EPM's capitalization. This variation had an effect on the application of the equity method, decreasing the investment by $4,843 recognized directly in equity.

Aguas de Malambo S.A. E.S.P. increased to 98.31% due to the capitalization of EPM. This variation had an effect on the application of the participation method, decreasing the investment by $14 recognized directly in equity.

EPM Capital México S.A. de CV decreased to 48.98%, due to the return of contributions to EPM. This variation had an effect on the application of the participation method.

Note 9.

Investments in associate

The detail of the investments in associates of EPM at the date of the reporting period is as follows:

Name of the associate	Location (country)	Main activity	Percentage of ownership and voting rights		Date of creation
			2023	2022	
Hidroeléctrica Ituango S.A. E.S.P.	Colombia	Promotion, design, construction, operation, maintenance and commercialization of energy at national and international level of the Ituango hydroelectric plant.	46.33%	46.33%	29/12/1997
Hidroeléctrica del Río Aures S.A. E.S.P. [1]	Colombia	Generation and commercialization of electricity through a hydroelectric power plant, located in the jurisdiction of the municipalities of Abejorral and Sonsón, in the department of Antioquia.	8.43%	11.81%	14/05/1997
UNE EPM Telecomunicaciones S.A.	Colombia	Provision of telecommunications services, information and communication technologies, information services and ancillary activities.	50.00%	50.00%	29/06/2006
Inversiones Telco S.A.S.	Colombia	Invest in companies whose corporate purpose is the provision of telecommunications, information and communication technology services, information services and complementary activities, as well as in companies that are based on the provision of business process outsourcing services.	50.00%	50.00%	5/11/2013

[1] *As of January 31, 2023, the percentage of ownership in favor of EPM decreased due to capitalizations made by other shareholders. In June 2023, it was reclassified from associated investment to non-controlled investment*

The value of investments in associates at the cut-off date was:

Associate	2023			2022			
	Investment amount			Investment amount			Dividends
	Cost [1]	Impairment	Total	Cost [1]	Impairment [2]	Total	
Hidroeléctrica Ituango S.A.	34,227	(16,946)	17,281	34,227	(16,946)	17,281	-
Hidroeléctrica del Río Aures S.A.	-	-	-	2,478	-	2,478	-
UNE EPM Telecomunicaciones	2,642,488	(1,044,022)	1,598,466	2,342,488	(1,044,022)	1,298,466	-
Inversiones Telco S.A.S.	55,224	-	55,224	55,224	-	55,224	8,167
Total inversiones en asociadas	**2,731,939**	**(1,060,968)**	**1,670,971**	**2,434,417**	**(1,060,968)**	**1,373,449**	**8,167**

- Amounts stated in millions of Colombian pesos -

[1] *In October and December 2023, EPM capitalized UNE EPM telecomunicaciones S.A. for $150,000 and $150,000, respectively*

Note 10.

Investments in joint ventures

The detail of EPM's joint ventures at the cut-off date is as follows:

Name of joint venture	Location (country)	Main activity	Percentage of ownership and voting rights		Date of creation
			2023	2022	
Parques del Río S.A.S. [1]	Medellín	Construction, operation, administration and maintenance of the Parques del Río Medellín project, as well as acting as the project's urban manager.	33%	33%	26/12/2015

[1] *Joint venture established on November 26, 2015, in which the Municipality of Medellín, Interconexión Eléctrica S.A. E.S.P. (ISA), Empresa de Transporte Masivo del Valle de Aburrá Ltda. (Metro) and EPM participate. The Entity seeks to be the manager of the next urban developments of the city, the department and the country, taking advantage of the synergies in infrastructure, mobility, environmental and social issues, among others.*

The value of the investments in joint ventures at the cut-off date was:

Name of joint venture	2023 Investment amount		2022 Investment amount	
	Cost	Total	Cost	Total
Parques del Río S.A.S.	99	99	99	99
Total investments in joint ventures	99	99	99	99

-Amounts stated in millions of Colombian pesos-

Note 11.

Impairment of non-financial assets

11.1. Impairment of investments in subsidiaries, associates and joint ventures

The following table shows the cumulative effect of recognized impairment losses:

Investment	Carrying amount	
	2023	2022
Subsidiary		
Hidroecológica del Teribe S.A. HET	86,963	86,963
Aguas de Malambo S.A. E.S.P.	1,641	1,641
Caribemar de la Costa S.A.S. E.S.P.	879,062	879,062
Total subsidiaries	**967,666**	**967,666**
Associate		
Hidroeléctrica Ituango S.A. E.S.P.	16,946	16,946
UNE EPM Telecomunicaciones S.A.	1,044,022	1,044,022
Total associates	**1,060,968**	**1,060,968**

-Amounts stated in millions of Colombian pesos-

11.2. Impairment of Cash Generating Units

The carrying amount of goodwill and intangible assets with an indefinite useful life associated with each CGU are detailed below:

Cash Generating Unit	Carrying amount	
	2023	2022
Energy Generation Segment		
Goodwill	260,647	260,647
Easements	444	444
CGU - Energy Generation	**261,091**	**261,091**
Energy Transmission Segment		
Easements	129,189	129,189
CGU - Energy Transmission	**129,189**	**129,189**
Energy Distribution Segment		
Easements	46,897	38,611
CGU - Energy Distribution	**46,897**	**38,611**
Gas Segment		
Goodwill	303	302
Easements	3,698	3,692
UGE - Gas-	**4,001**	**3,994**
Segment Water Supply		
Easements	9,075	7,413
CGU - Water Supply	**9,075**	**7,413**
Sanitation Segment		
Easements	656	1,018
CGU - Sanitation	**656**	**1,018**

-Amounts stated in millions of Colombian pesos-

The description of CGUs is detailed below:

- CGU Electricity Generation, whose activity consists of the production of energy and commercialization of large blocks of electrical energy, from the acquisition or development of a portfolio of energy proposals for the market.
- UGE Distribución y Comercializacion Energía, whose activity consists of transporting electrical energy through a set of lines and substations, with their associated equipment, operating 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 street lighting service and the provision of associated services.
- CGU Energy Transmission, whose activity consists of transporting energy in the National Transmission System -STN-, established of the set of lines, with their corresponding connection equipment, which operate at voltages equal to or greater than 220 KV. The National Transmitter (TN) is the legal person that operates and transports electricity in the STN or has set up a company whose purpose is the development of said activity.
- CGU Distribution and Commercialization of Natural Gas, whose activity consists of conducting gas from the city gate to the end user, through medium and low-pressure pipes. Includes the sale of gas through different systems, including network distribution, vehicular natural gas, compressed natural gas, and service stations.
- CGU Provision Agua, whose activity consists of conceptualizing, structuring, developing and operating systems to provide water. It includes carrying out the commercial management of the service portfolio related to the supply of water for different uses, in addition to the use of the productive chain, specifically in the production of energy, and the supply of raw water.
- CGU Wastewater Management includes the activities of conceptualizing, structuring, developing and operating wastewater systems and solid waste management, in addition to the use of the productive chain, specifically in the production of energy and gas.

Goodwill is mainly allocated to the Generation segment for $260,647 (2022: $260,647) generated as a result of the liquidation of the subsidiary EPM Ituango S.A E.S.P. and Espíritu Santo, whose assets were transferred to EPM, and to the Gas segment for $303 (2022: $302) as a result of the business combination with the Surtidora de Gas del Caribe S.A. E.S.P. in the Municipality of Necoclí.

El intangible servidumbre está asignado principalmente a los segmentos/ UGE Generación, Transmisión, Distribución, Gas, Provisión Aguas y Saneamiento por $189,959 (2022: $180,367).

At the end of the periods, an impairment test was carried out on the CGUs that had associated intangible assets with an indefinite useful life, but no impairment was evidenced.

To calculate the recoverable amount of assets, the value in use is the criterion used by the company.

To estimate the value in use of the cash-generating units that have assigned goodwill and intangible assets with an indefinite useful life, the company is based on future cash flow projections considering expectations regarding the market, legal, economic and technological. The latest financial projection approved by the Board of Directors of the subsidiary with a 20-year projection is used and the discount rate used corresponds to the cost of capital of the business.

Note 12.

Trade and other receivables

The detail of trade and other receivable for the reporting period is as follows:

Trade and other receivables	2023	2022
Non-current		
Public services debtors [1]	1,089,132	490,679
Impairment of public services	(278,355)	(165,100)
Related parties	1,071,406	934,362

Employee loans [2]	111,019	132,216
Impairment of employee loans	(245)	(13)
Other trade receivable [3]	71,922	73,947
Impairment other trade receivables	(3,748)	(3,599)
Total non-current	**2,061,131**	**1,462,492**
Current		
Public services debtors [1]	4,127,509	3,380,608
Impairment of public services	(374,088)	(364,031)
Related Parties [4]	18,261	-
Loans receivables from employee [2]	77,012	32,305
Impairment of employee loans	(94)	(79)
Other trade receivables [3]	780,698	435,660
Impairment other trade receivables	(217,821)	(204,686)
Dividends and participations receivable	1	17
Indemnities	6,540	6,674
Other services	15,678	13,698
Total current	**4,433,696**	**3,300,166**
Total	**6,494,827**	**4,762,658**

-Amounts stated in millions of Colombian pesos-

The total portfolio presented an increase of $1,732,169, equivalent to 36.37%, mainly due to the following items:

[1] The public services debtors presented an increase of $1,345,354 909 which is mainly due to the increase in the following items:

- *New accounts receivable, corresponding to the sale of long-term energy to large clients due to the entry into operation of Hidroituango's turbines 1, 2, 3 and 4.*
- *Subsidies for EGA (Energy, Gas and Water) services*
- *Massive billing of the residential public service and its estimate:*
- *Recognition of the fare option that has not yet been passed on to users.*

Note: *The fare option allows you to moderate abrupt increases in the fare by accumulating balances that are paid by the user later, over a longer period of time. The behavior of this account receivable is as follows:*

Period	Capital Balance	Interest Balance	Total Accrued
December 2022	530,706	39,155	569,861
December 2023	52,190	108,750	160,940
Total	**582,896**	**147,905**	**730,801**

-Amounts stated in millions of Colombian pesos-

[2] The employee loan showed an increase of $23,510, mainly explained by the housing loans approved for them.

[3] Other debtors receivable increased by $343,013, mainly due to the invoice made in December 2023 corresponding to the sale of EPM's Somos program to Somos Servicios Integrado Sucursal Colombia and due to the higher balances in accounts receivable related to collections in favor of third parties and agreements.

[4] Related Parties loans increased by $155,305, explained by the combined effect between the amortizations made to Hidrosur's loan and the disbursements made to the subsidiary Afinia.

Accounts receivable from debtors of public services do not generate interest and the term for its collection depends on the type of use of it. In residential use, the collection of invoices is projected to be 10 days after the invoice is generated. Individual contracts with large clients or those in the energy sector contemplate terms agreed upon in private negotiations; in the latter case, the term is generally 30 days.

Long-term accounts receivable are measured at amortized cost under the effective interest rate method and short-term accounts receivable are presented at their nominal amount, except for accounts receivable that are measured at fair value of: i) the account receivable associated with the contract for the firm supply of liquid fuel (ACPM) for the Termoeléctrica La Sierra and Termodorada plants , which is updated according to the value of the fuel unit stipulated in the contract.

See note 43 | Fair value measurement on a recurring and non-recurring basis

Portfolio impairment

The Company measures the impairment of expected losses on the portfolio using the simplified approach, which consists of taking the present value of credit losses arising from all possible default events at any time during the life of the operation.

This alternative is taken given that the volume of clients that the Company manages is very high and the measurement and control of risk in stages can lead to errors and an underestimation of impairment.

The expected loss model corresponds to a forecasting tool that projects the probability of default or non-payment of the portfolio within the next twelve months. Each obligation is assigned an individual probability of non-payment that is calculated from a probability model that includes sociodemographic, product, and behavioral variables.

Although the impairment forecast for the annual term is obtained based on the client's payment behavior data contained during the period in question; The same does not occur when the impairment of the monthly periods comprising the annual term is recorded. In the latter case, the

deterioration recorded for the month evaluated is that obtained with the payment behavior data of the previous month.

At the cut-off date, the age analysis of accounts receivable at the end of the reporting period and that are impaired is:

	2023		2022	
	Gross carrying amount	Amount of credit losses	Gross carrying amount	Amount of credit losses
Public services debtors				
Without default interest	4,123,378	(331,263)	3,394,632	(295,232)
Less than 30 days	707,435	(24,266)	211,776	(23,987)
30-60 days	52,631	(15,296)	45,067	(14,528)
61-90 days	38,372	(20,932)	18,755	(12,328)
91-120 days	23,003	(14,205)	14,636	(11,408)
121-180 days	35,025	(27,849)	17,784	(13,966)
181-360 days	64,436	(52,368)	32,505	(26,055)
More than 360 days	172,361	(166,264)	136,132	(131,627)
Total Public services debtors	**5,216,641**	**(652,443)**	**3,871,287**	**(529,131)**
Other debtors				
Without default interest	1,854,083	(8,270)	1,334,652	(5,534)
Less than 30 days	24,288	(4,277)	33,611	(5,315)
30-60 days	4,081	(956)	22,881	(5,441)
61-90 days	11,751	(5,066)	11,710	(2,654)
91-120 days	4,829	(2,319)	8,437	(1,152)
121-180 days	10,571	(2,355)	13,826	(2,917)
181-360 days	24,952	(5,038)	3,706	(3,071)
Over 360 days	217,985	(193,627)	200,056	(182,293)
Total other debtors	**2,152,540**	**(221,908)**	**1,628,879**	**(208,377)**
Total debtors	**7,369,181**	**(874,351)**	**5,500,166**	**(737,508)**

-Amounts stated in millions of Colombian pesos-

Regarding the age of non-performing loans, it can be observed that the portfolio is concentrated in the range with no arrears and less than 30 days.

In the public services receivables account, there was an increase due to the account receivable from large clients due to the entry into operation of Hidroituango's turbines 1, 2, 3 and 4, tariff option and estimates, also resulting in an increase in impairment.

The other debtors account showed an increase, mainly due to the account receivable made in December 2023 corresponding to the sale of EPM's SOMOS program to Somos Servicios Integrado Sucursal Colombia.

The reconciliation of the expected credit losses of the portfolio is as follows:

Expected credit losses over the life of the asset	2023	2022
Value correction at the beginning of the period	(737,508)	(574,958)
Impairment changes to the trade receivable held at the beginning of the period	(582,245)	(457,217)
Write-off	1,193	53,787
Derecognition	444,093	241,339
Other movements	114	(459)
Final balance	**(874,353)**	**(737,508)**

-Amounts stated in millions of Colombian pesos-

The value of accumulated impairment increased by $136,843, mainly due to the impairment of accounts receivable from the sale of energy, subsidies for Water Provision and Wastewater Management, and the Tariff Option.

Period	Impairment
December 2022	(102,193)
December 2023	(32,193)
Total	**(134,386)**

-Amounts stated in millions of Colombian pesos-

In the item Write-off of portfolio so far this year $1,193 were derecognized, mainly due to the penalty of the account receivable corresponding to EGA services (Energy, Gas and Water).

The net portfolio reconciliation is as follows:

Trade receivables balance	2023	2022
Financial assets initial balance	5,500,166	6,808,368
New financial assets originated or purchased [1]	23,897,821	18,248,430
Financial assets that have been derecognized [2]	(22,195,597)	(19,358,255)
Financial asset write-offs	(1,193)	(53,787)
Valuation at amortized cost	(27,013)	85,397
Difference in exchange attributable	194,995	(229,987)
Final balance	**7,369,179**	**5,500,166**

-Amounts stated in millions of Colombian pesos-

[1] *The balance of new assets originated or purchased is mainly due to the accumulated billing of public services, subsidies, estimates and rate option.*

[2] *The financial assets that have been derecognized is mainly due to the payment of accounts receivable from EGA (Energy, Gas and Water) services*

The company penalizes, against value impairment recognized in an allowance account, the values of impaired financial assets, when it is evidenced that there are obligations that cannot be recovered by enforcement, coercive collection or ordinary means, actions of which must be attach the supports in the files where the request for punishment is documented.

The grounds for requesting the approval of the portfolio write-off in EPM are the following:

- The registered accounts receivable do not represent certain rights, assets or obligations for EP.
- The rights or obligations lack documents and suitable support that allow the pertinent procedures for their collection or payment to be carried out.
- It is not possible to collect the right or obligation, by coercive or judicial collection, once the pre-legal collection stage has been exhauste.
- When it is impossible to identify and individualize the natural or legal person, to collect the portfolio.
- When the cost-benefit relationship is evaluated and established, it is more onerous to advance the collection process than the value of the obligation.
- When there is prescription of the security title and executive title or the expiration of the right.
- When the executive process has been advanced, there are no assets to make the payment of the obligation effective.
- When the liquidation process of the natural or legal person has been advanced in terms of the law, and the assets received as payment are not enough to cover the entire debt; in this case the unpaid balance is penalized.

Institutions responsible for write-off

The write-off in EPM is approved by the Portfolio Write-Off Committee, which is chaired by the Accounting and Financial Services Manager, assisted by the Director of Financial Transactions and the head of the Credit and Portfolio Management Unit. The Committee meets periodically or when a particular situation warrants it.

Note 13.

Other financial assets

The detail of other financial assets at the end of the period is:

Other Financial Assets	2023	2022
Non-current		
Derivatives designated as hedging instruments under hedge accounting		
Swap Contracts	-	464,000
Futures Contracts	69	-
Total derivatives designated as hedging instruments under hedge accounting	**69**	**464,000**
Financial assets measured at fair value through profit or loss for the period		
Equity securities [1]	464,642	167,992
Trust rights [1]	314,019	299,482
Total financial assets measured at fair value through profit or loss for the period	**778,661**	**467,474**
Financial assets designated at fair value through other comprehensive income		
Equity instruments [2]	1,522,014	2,059,062
Total financial assets designated at fair value through other comprehensive income	**1,522,014**	**2,059,062**
Total other non-current financial assets	**2,300,744**	**2,990,535**

Current		
Derivatives designated as hedging instruments under hedge accounting		
Futures Contracts	19	-
Total derivatives designated as hedging instruments under hedge accounting	**19**	**-**
Financial assets measured at fair value through profit or loss for the period		
Derivatives not under hedge accounting [3]	31,453	67,870
Fixed income securities [1] - [4]	78,008	63,803
Pledged investments	808	233,004
fiduciary rights	317	17,719
Total financial assets measured at fair value through profit or loss for the period	**110,586**	**382,396**
Total other current assets	**110,605**	**382,396**
Total other assets	**2,411,349**	**3,372,931**

- Amounts stated in millions of Colombian pesos -

[1] *It includes the result from valuation of financial instruments and hedge accounting of $253,078; reflected in the statement of cash flows.*

[2] *The decrease was caused by the fall in the share price of Interconexión Eléctrica S.A. E.S.P., since their fair value is determined by the market price.*

[3] *It corresponds to the weather derivative contracted to cover the existing risk of dry seasons that imply a decrease in hydraulic generation and the rise in energy prices on the stock market. This financial instrument is intended to provide protection to parent EPM when events materialize that may prevent the fulfillment of contractual commitments that imply buying energy on the stock market at market prices that may be unfavorable. With the weather derivative, part of this impact is transferred to the market, which would reduce the effect on the company's financial results .*

[4] *It includes the following items: acquisition of investments in financial instruments for $212,600, disposition of investments in financial instruments for $487,126 reflected in the statement of cash flows.*

Conventional purchases and sales of financial assets are accounted for by applying the trade date.

13.1. Financial assets measured at fair value through other comprehensive income

13.1.1. Other financial assets measured at fair value through other comprehensive income

The detail of financial assets measured at fair value through other comprehensive income, other than equity investments, is:

Equity investment	2023	2022
Interconexión Eléctrica S.A. E.S.P [1]	1,512,774	2,052,213
Other investments	9,240	6,849
Total	**1,522,014**	**2,059,062**
Dividends recognized during the period related to investments that remain recognized at the end of the period [2]	178,160	76,989
Dividends recognized during the period	**178,160**	**76,989**

- Amounts stated in millions of Colombian pesos-

[1] *As of December 31, 2022, the market price of Interconexión Eléctrica S.A. E.S.P. closed at $15,480 (2022: $21,000) pesos, respectively.*
[2] *Dividends from financial instruments were accrued for $178,160 (2022: $76,989) which are disclosed in the investment dividends caption in the statement of cash flows.*

The equity investments indicated in the above table are not held for trading purposes, instead, they are held for strategic purposes in the medium and long term. The company's management considers that the classification for

these strategic investments provides more reliable financial information, which reflects the changes in their fair value immediately in the result of the period.

13.2. Reclassifications of financial assets

EPM has not made changes to the business model for the management and administration of financial assets, therefore no financial assets have been reclassified.

Note 14.

Right-of-use assets

14.1. Lease that originates right-of-use assets as lessee

As of the cut-off date, the carrying amount of the right-of-use assets is as follows (does not include right-of-use assets associated with construction in progress, these are included in note 5. Property, plant and equipment):

2023	Right-of-use land	Right-of-use buildings	Right-of-use plants, pipelines and tunnels	Right-of-use networks, lines and cables	Right-of-use Machinery and equipment	Right-of-use communication and computing equipment	Right of use Traction and lifting transport equipment	Total
Beginning Cost Balance	6,092	662,383	1,996,580	20,659	8,894	4,289	21,158	2,720,055
Additions [1]	1,075	43,326	170,432	3,394	1,274	253	65	219,819
Disposals (-)	(173)	(3,779)	-	(2,471)	(5,716)	-	(1,128)	(13,267)
Ending balance of cost	**6,994**	**701,930**	**2,167,012**	**21,582**	**4,452**	**4,542**	**20,095**	**2,926,607**
Accumulated amortization and value impairment								
Initial balance of accumulated amortization and value impairment	(1,515)	(193,935)	(179,032)	(3,766)	(4,701)	(2,691)	(14,201)	(399,841)
Amortization of the period	(483)	(24,431)	(53,441)	(1,220)	(1,330)	(337)	(3,285)	(84,527)
Disposals (-)	48	2,020	-	796	3,855	-	817	7,536
Other changes		(325)	-	-	(5)	(5)	(8)	(343)
Final balance accumulated amortization and value impairment	**(1,950)**	**(216,671)**	**(232,473)**	**(4,190)**	**(2,181)**	**(3,033)**	**(16,677)**	**(477,175)**
Total final balance of net right-of-use assets	**5,044**	**485,259**	**1,934,539**	**17,392**	**2,271**	**1,509**	**3,418**	**2,449,432**

- Amounts stated in millions of Colombian pesos -

2022	Right-of-use land	Right-of-use buildings	Right-of-use plants, pipelines and tunnels	Right-of-use networks, lines and cables	Right-of-use Machinery and equipment	Right-of-use communication and computing equipment	Right of use Traction and lifting transport equipment	Total
Beginning Cost Balance	5,946	645,424	1,863,979	18,207	9,362	4,200	11,998	2,559,116
Additions [1]	325	17,675	132,601	2,453	-468	-	9,161	161,747
Disposals (-)	-	-805	-	-	-	-	-	-805
Other changes	-179	89	-	-	-	90	-	-
Ending balance of cost	**6,092**	**662,383**	**1,996,580**	**20,660**	**8,894**	**4,290**	**21,159**	**2,720,058**
Accumulated amortization and value impairment								
Initial balance of accumulated amortization and value impairment	-1,112	-171,390	-130,463	-2,660	-3,431	-2,384	-10,996	-322,436
Amortization of the period	-437	-23,030	-48,569	-1,107	-1,270	-307	-3,198	-77,918
Disposals (-)	-	518	-	-	-	-	-	518
Other changes	34	-34	-	-	-	-	-9	-9
Final balance accumulated amortization and value impairment	**-1,515**	**-193,936**	**-179,032**	**-3,767**	**-4,701**	**-2,691**	**-14,203**	**-399,845**
Total final balance of net right-of-use assets	**4,577**	**468,447**	**1,817,548**	**16,893**	**4,193**	**1,599**	**6,956**	**2,320,213**

- Amounts stated in millions of Colombian pesos -

[1]It corresponds to the subsequent measurement of the lease liability, which generates increases each time there are changes in the rate in its Average Investment Cost (CMI) component in pesos per cubic meter charged by Aguas Nacionales to EPM, this increase is given by regulations each time the CPI accumulates 3% and additional on the dates on which the increases by rate path are applied.

At the cut-off date, the minimum future payments and the present value of the minimum payments of the lease liability are distributed as follows:

Finance lease	2023		2022	
	Minimum payments	Present value of minimum payments	Minimum payments	Present value of minimum payments
To one year	252,395	240,477	229,737	218,937
More than one year and up to five years	938,689	703,758	850,875	639,156
More than five years	17,331,230	2,087,271	16,936,810	1,906,220
Total leases	**18,522,314**	**3,031,506**	**18,017,422**	**2,764,313**
Less - value of unearned interest	15,490,808	0	15,253,109	0
Present value of minimum lease payments	**3,031,506**	**3,031,506**	**2,764,313**	**2,764,313**

- Amounts stated in millions of Colombian pesos -

The most significant lease agreements are:

Sewerage Interconnection Contract CT- 2013-002297-A421 of November 26, 2018, entered between EPM (THE BENEFICIARY) and Aguas Nacionales EPM (THE SUPPLIER), regulates the interconnection conditions to the wastewater transportation and treatment subsystems owned by Aguas Nacionales, for the provision of the service by EPM of the public sewerage service to the users of the interconnected system of the Aburrá Valley. This interconnection will also allow the drying and final disposal of the biosolids resulting from the treatment of wastewater from the entire interconnected system.

The termination of the contract is July 1, 2021, the date on which the validity of the tariff formula ends, in accordance with the provisions of Article 113 of Resolution CRA 688 of 2014, modified by Article 41 of the Resolution CRA 735 of 2015. If, in accordance with the provisions of the last paragraph of Article 126 of Law 142 of 1994, the validity of the tariff formula is extended, the contract shall be understood to be in force while the Potable Water and Basic Sanitation Regulation Commission do not determine a new formula.

The contract was renewed from July 1, 2021 for 5 years.

Before the expiration of the term of the contract, the parties by mutual agreement may extend or extend the term of the contract by means of a written document, so it is understood that there will be no automatic extension of the term of the contract.

EPM does not intend to financially acquire the Aguas Claras wastewater treatment plant or PTAR or enter into any purchase option for said asset.

The lease payments of the contract that EPM pays to Aguas Nacionales EPM are by Average Investment Cost (CMI), determined in pesos per cubic meter of treated residual water and are updated as indicated in the following paragraph and in Annex No. 4 of the Contract:

First paragraph. THE SUPPLIER will apply a CPI update factor to the reference costs each time the Consumer Price Index, reported by DANE, accumulates a variation of at least three percent (3%).

According to annex No. 4 of the contract: Ithe increases by rate path are the following:

- January 2019: 5.75%
- January 2020: 2.40%
- January 2021: 2.16%
- January 2022: 1.63%

The Leasing Contract for the Edificio Empresas Públicas de Medellín CT-085 of February 12, 2002, entered into between EPM (THE COMPANIES) and the MUNICIPALITY OF MEDELLIN (MUNICIPALITY), the MUNICIPALITY undertakes to deliver as a lease to THE COMPANIES and these They oblige to receive the same title, the use and enjoyment of the real estate of their property called "Edificio Empresas Públicas de Medellín", with all its constructions and improvements.

The duration of the contract is 50 years from December 21, 2001, the date on which the MUNICIPALITY OF MEDELLIN began to appear as the owner of the property.

The lease payments of the contract are readjusted each year by a percentage equal to the Consumer Price Index (CPI) at the national level, certified by DANE for the immediately previous year.

Lease liabilities are found under Other financial liabilities in the statement of financial position.

The interest originated from the lease liability amounts to $286,770 (2022: $258,632).

See note 36 | Financial income and expense

Total lease cash outflows during the period are $232,935 (2022: $211,125).

14.2. Operating lease as lessor

The most significant operating lease agreements are:

Connection Contract MA-0021450 dated January 24, 2013, entered between ECOPETROL (THE BENEFICIARY) and EPM (THE SUPPLIER), which regulates the connection of Ecopetrol to the STN at the Comuneros 230 kV substation.

The term is 30 years for the operation and provision of the connection service from the date of entry into operation of the project, which was February 1, 2016.

Total annual payments are indexed to the IPP, based on the IPP of the month prior to the signing of the connection contract.

Electrical infrastructure for the installation of networks by telecommunications operators. These can be renewed in a period not exceeding five years. The contract lease payments are updated according to the pole support rates that are regulated by the CRC (resolution 5890/2020) and multiplied by the number of supports that each client uses; this charge is made monthly, and the rate is updated annually according to the IPP.

The value of operating lease income is:

Operating lease	2023	2022
Year one	104,014	74,852
Year two	29,464	31,659
Year three	24,940	29,331
Year four	19,851	24,119
Year five	19,293	24,119
More than five years	299,828	312,672
Total leases	**497,390**	**496,752**

- Amounts stated in millions of Colombian pesos -

14.3. Leases that do not give rise to right-of-use assets as a lessee

The lease agreements that do not give rise to the most significant right-of-use assets are: spaces for the installations and operation of antennas at weather stations, shift management system, user printing infrastructure, among others, which have no restrictions.

As of the cut-off date, future short-term lease commitments are $9,139 (2022: $6,855).

Total future non-cancellable sublease minimum payments for assets acquired under operating leases is $1,782.

The lease payments recognized as expenses for the period are $7,219 (2022: $6,581).

Total lease cash outflows during the period are $6,747 (2022: $6,098).

Note 15.

Guarantee

The company has not provided guarantees in which the third party is authorized to sell or pledge without a breach by the company.

The company has not received any collateral that it is authorized to sell or pledge without a breach by the collateral owner.

Note 16.

Other assets

The detail of other assets at the end of the reporting periods is as follows:

Concept	2023	2022
Non-current		
Employee Benefits	58,946	49,798
Prepayments [1]	60,448	35,712
Deferred loss on leaseback transaction	18,907	19,582
Advances delivered to suppliers [2]	-	2,147
Assets received as payment	1,286	1,286
Total other non-current assets	**139,587**	**108,525**
Current		
Prepayments [1]	133,927	108,260
Advances to suppliers [2]	53,910	49,848
Other credit balances due to other taxes	360	284
Other advances or credit balances due to taxes and contributions	470	94
Total other current assets	**188,667**	**158,486**
Total other assets	**328,254**	**267,011**

- Amounts stated in millions of Colombian pesos -

[1] *The non-current portion includes comprehensive policies for $56,658 (2022: $31,030), and the premium on legal stability contracts for $3,790 (2022: $4,682).*

The current portion includes insurance for $102,385 (2022: $71,101), mainly made up of comprehensive policies for $80,308 (2022: $53,089), and other insurance for $22,077 (2022: $18,012); goods and services for $13,252 (2022: $20,120); leases and maintenance for $18,290 (2022: $17,038).

[2] *CIt corresponds to advances and resources delivered in administration, mainly in the current portion: XM advances for $25,027 (2022: $24,372); advances for goods and services for $16,166 (2022: $16,054), Ruta N agreement advance for $5,396 (2022: $6,227), other advances for $6,029 (2022: $3,058) and Corporación Cuencaverde for $1,293 (2022: $136).*

Note 17.

Inventories

Inventories at the end of the period were represented as follows:

Inventories	2023	2022
Materials for the rendering of service [1]	185,875	177,333
In-stock merchandise	17,294	17,109
Goods in transit	1,153	1,175
Total inventories at cost or net realizable value, whichever is lower	**204,322**	**195,617**

- Amounts stated in millions of Colombian pesos -

[1] *It includes materials for rendering of services held by third parties, which are those delivered to contractors that carry out activities related to the provision of services.*

The company has not generated losses in value when comparing the net realizable value with the average cost of inventories.

The company has not committed its inventories as collateral for liabilities.

Note 18.

Cash and cash equivalents

The composition of cash and cash equivalents at the end of the period is as follows:

Cash and cash equivalents	2023	2022
Cash on hand and banks	1,220,306	1,637,265
Other cash equivalents	250,524	447,184
Total cash and cash equivalents presented in the statement of financial position	**1,470,830**	**2,084,449**
Cash and cash equivalents presented in the statement of cash flows	**1,470,830**	**2,084,449**
Restricted cash and cash equivalents [1]	**120,893**	**97,542**

- Amounts stated in millions of Colombian pesos -

[1] *Of these, $40,591 (2022: $56,615) corresponds to non-current restricted cash and $80,302 (2022: $40,927) to current*

For cross-reference purposes with the separate cash flow statement, the Restricted Resources line includes the restricted resources of the portfolio for $808.

Treasury investments mature in a period equal to or less than three months from the date of acquisition and accrue market interest rates for this type of investment.

The business has restrictions on cash and cash equivalents detailed below. As of December 31, 2023, the fair value of restricted cash equivalents is $120,893 (2022: $97,542).

Fund or agreement	Destination	2023	2022
Sintraemdes Housing Fund	Contribute to the acquisition and improvement of housing for the public servants who are beneficiaries of the collective agreement signed between EPM and the trade unions.	34,199	10,246
Sinpro Housing Fund	Contribute to the acquisition and improvement of housing for the public servants who are beneficiaries of the collective agreement signed between EPM and the trade unions.	31,889	9,927
Income Corpb. 6972005469	Address possible contingencies following EPM's acquisition of EPRIO	8,067	7,133
Agreement Account	Inter-administrative agreement CT-2022-000918, Indigenous Schools Government	5,628	-
Agreements on public lighting and sanitation fees with municipalities	Agreement to manage the resources of the territorial entities for the payment to the municipalities with agreements for the collection of public lighting and sanitation fees, are resources exempt from the 4x1000.	5,570	544
Agreement Account	2020-2023 Development Plan of the Government of Antioquia, and EPM's Energy Service Coverage Goals	5,100	-
Ministry of Mines and Energy - Special Development Quota Fund	Co-financing agreement for the construction, distribution infrastructure and connection to low-income users in the municipalities of Amagá, Santafé de Antioquia, Sopetrán, San Jerónimo and Ciudad Bolívar. Compressed Natural Gas and connection to users in Don Matías, Entrerríos, San Pedro, Santa Rosa and Yarumal. Agreement No. 106: construction of the infrastructure to connect users of the Aburrá Valley, La Ceja, La Unión and El Retiro. Agreement 179: includes the municipality of Sonsón.	3,591	3,250
Contract No. CT-2019-001105	Contract for the supply of energy and electrical power for the non-regulated market and support of contracts of the energy distributor and marketer S.A. E.S.P, DICEL S.A. E.S.P.	3,373	3,058
Sintraemdes Education Fund	Promote the well-being of public servants in order to meet the needs of paying tuition, textbooks and endowments that are required to carry out their own studies and those of the family group.	2,398	1,808
Sinpro Education Fund	Promote the well-being of public servants in order to meet the needs of paying tuition, textbooks and endowments that are required to carry out their own studies and those of the family group.	2,387	2,505
Adapted Health Entity Fund and Fosyga Fund	Mechanism for control and monitoring of the collection of contributions from the Contributory Regime of the General Social Security System in Health.	2,188	1,894
SOMOS Points Agreement	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.	2,126	1,928
Sintraemdes Calamity Fund	Promote the well-being of their servants to attend to their urgent and unforeseen needs or those of their primary family group.	1,839	1,565
Ministry of Mines and Energy - Special Development Quota Fund	Co-financing agreement for the construction, distribution infrastructure and connection to low-income users in the municipalities of Amagá, Santafé de Antioquia, Sopetrán, San Jerónimo and Ciudad Bolívar. Compressed Natural Gas and connection to users in Don Matías, Entrerríos, San Pedro, Santa Rosa and Yarumal. Agreement No. 106: construction of the infrastructure to connect users of the Aburrá Valley, La Ceja, La Unión and El Retiro. Agreement 179: includes the municipality of Sonsón.	1,552	1,538

Agreement Account	Seizure due to judicial proceedings	1,478	1,163
Agreement Account	inter-administrative cooperation agreement with the Government of Antioquia for the construction of 13 indigenous schools in different municipalities of Antioquia with the Villages Programme	1,458	-
Agreement Account	Implementation of solar photovoltaic systems through the "Linked by Rural Schools" network	1,396	-
Sinpro Calamity Fund	Promote the well-being of their servants to attend to their urgent and unforeseen needs or those of their primary family group.	1,354	1,312
Adapted Health Entity Fund and Fosyga Fund	Mechanism for control and monitoring of the collection of contributions from the Contributory Regime of the General Social Security System in Health.	710	2,424
Medellín Municipality Framework Agreement No. 4600049285	Construction by EPM of platforms and other road elements in the city center, taking advantage of the Centro Parrilla project, that is, the renovation of aqueduct and sewer networks.	653	592
Villages Program	Take advantage of the wood that completes its maturation cycle in the forests planted by EPM around its reservoirs, to build social housing in the municipalities of Antioquia outside the Aburrá Valley and deliver them to low-income families, preferably in situations of forced or voluntary displacement.	630	571
EAS CTAS COPAYS	Receipt of resources corresponding to moderator fees and co-payments in the EAS	462	315
Ministry of Mines and Energy - Special Development Quota Fund	Co-financing agreement for the construction, distribution infrastructure and connection to low-income users in the municipalities of Amagá, Santafé de Antioquia, Sopetrán, San Jerónimo and Ciudad Bolívar. Compressed Natural Gas and connection to users in Don Matías, Entrerríos, San Pedro, Santa Rosa and Yarumal. Agreement No. 106: construction of the infrastructure to connect users of the Aburrá Valley, La Ceja, La Unión and El Retiro. Agreement 179: includes the municipality of Sonsón.	440	436
Sinpro Education Fund	Promote the well-being of public servants in order to meet the needs of paying tuition, textbooks and endowments that are required to carry out their own studies and those of the family group.	358	116
Ministry of Mines and Energy - Special Development Quota Fund	Co-financing agreement for the construction, distribution infrastructure and connection to low-income users in the municipalities of Amagá, Santafé de Antioquia, Sopetrán, San Jerónimo and Ciudad Bolívar. Compressed Natural Gas and connection to users in Don Matías, Entrerríos, San Pedro, Santa Rosa and Yarumal. Agreement No. 106: construction of the infrastructure to connect users of the Aburrá Valley, La Ceja, La Unión and El Retiro. Agreement 179: includes the municipality of Sonsón.	345	341
Payment of CO Solidarity Contributions	The purpose of the account is to receive the transfer of solidarity contributions paid by other marketers, as well as the resources paid by the Ministry of Mines and Energy as subsidies for lower tariffs applied to users of the energy service of strata 1, 2 and 3.	254	1
Sinpro Calamity Fund	Promote the well-being of their servants to attend to their urgent and unforeseen needs or those of their primary family group.	251	164
Agreement Account	Hedge contemplated in the 2020 - 2023 Development Plan of the Government of Antioquia, EPM and the Department, the connection of approximately 186 electrical installations with alternative energy related to individual photovoltaic systems - SISFV, in different subregions of the Department of Antioquia, contributing to the increase in hedge in rural electrification and improving the quality of life of the most vulnerable population.	230	-
Motorcycle Repair Fund	Promote the well-being of official workers who work in the regional market and use motorcycles they own to carry out their work.	362	164
Sintraemdes Education Fund	Promote the well-being of public servants in order to meet the needs of paying tuition, textbooks and endowments that are required to carry out their own studies and those of the family group.	160	255
Management of resources for the construction of infrastructure in Madera para Emvarias in the La Pradera landfill.	Management of resources for the construction of infrastructure in Madera para Emvarias in the La Pradera landfill.	98	87

Law 820 Deposits	Guarantee required by the landlord from the tenant, for the payment of utilities. According to Article 15 of Law 820 of 2003 and Regulatory Decree 3130 of 2003.	93	87
Municipality of Medellín - Land	Acquisition of identified and characterized properties within the protection zones of watersheds supplying aqueduct systems in the municipality of Medellín.	79	70
Espíritu Santo	EPM - Liquidation of the Espíritu Santo	65	64
Sintraemdes Calamity Fund	Promote the well-being of their servants to attend to their urgent and unforeseen needs or those of their primary family group.	55	118
Municipality of Medellín - Aguas	Integrated management of water for human consumption by the inhabitants of the municipality of Medellín.	30	26
Motorcycle Repair Fund	Promote the well-being of official workers who work in the regional market and use motorcycles they own to carry out their work.	18	204
Motorcycle Repair Fund	Promote the well-being of official workers who work in the regional market and use motorcycles they own to carry out their work.	7	-
Sinpro Housing Fund	Contribute to the acquisition and improvement of housing for the public servants who are beneficiaries of the collective agreement signed between EPM and the trade unions.	-	21,529
Sintraemdes Housing Fund	Contribute to the acquisition and improvement of housing for the public servants who are beneficiaries of the collective agreement signed between EPM and the trade unions.	-	20,395
Agreement Account	Inter-administrative agreement CT-2020-000916, connection of household electricity networks to increase hedge in rural electrification	-	1,450
Resources of the future Ituango hydroelectric power plant	Receipt of the resources paid by the insurance companies MAPFRE, AXA, SBS and SURA, which will be used exclusively for the future Ituango hydroelectric power plant	-	122
Agreement 5 Indigenous Esc. 2019-20	Co-financing the development of indigenous educational centres within the framework of the villages programme, for the improvement of the quality of life of indigenous communities in the department of Antioquia	-	112
Inter-administrative agreement CT-2017-001388 (460007009)	Agreement for the construction of 7 indigenous schools in 5 municipalities	-	28
Total		**120,893**	**97,542**

- Amounts stated in millions of Colombian pesos -

Note 19.

Equity

19.1. Issued capital

The company does not have its capital divided into parts/shares and has not had increases or decreases in capital in the period reported.

19.2. Reserves

Of the accounts that compound the equity, the reserves at the cut-off date were constituted of:

Reserves	2023	2022
Legal reserve		
Initial balance	878,307	971,393
Release	(389,261)	(93,086)
Final balance Legal reserves	**489,046**	**878,307**
Occasional reserves		
Initial balance	574,008	574,008
Final balance occasional reserves	**574,008**	**574,008**
Other reserves		
Initial balance	7,591	7,591
Final balance other reserves	**7,591**	**7,591**
Total reserves	**1,070,645**	**1,459,906**

- Amounts stated in millions of Colombian pesos -

The nature and purpose of the company's equity reserves are described below:

Legal reserve

In compliance with the Colombian tax provisions contained in article 130 of the Tax Statute, repealed by article 376 of Law 1819 of 2016 and in Decree 2336 of 1995, the company duly constituted the legal reserves. The reserves constituted by excesses in depreciation quotas referred to in article 130 of the Tax Statute may be released at the moment in which the depreciation requested for fiscal purposes is less than that recorded in the income statement.

Occasional reserves

In compliance with article 211 of the Tax Statute, the company has constituted the required reserves in order to enjoy special tax treatment and obtain rationalization in the payment of income and complementary taxes.

Other reserves

Includes equity funds (resources appropriated prior to 1999 to grant housing loans to workers, Financing Plan, self-insurance fund, housing fund).

The Board of Directors, in its sessions on March 23, 2022 and March 23, 2021, approved:

- Release reserves for $389,261 (2022: $93,086) appropriated in prior periods by authorization of the Board of Directors.

19.3. Retained earnings

The movement of accumulated results during the period was:

Retained earnings	2023	2022
Initial balance	23,850,348	22,576,829
Movement of reserves	389,261	93,086
Decreed surpluses	(1,748,005)	(1,850,776)
Equity method for equity variations	(3,831)	(4,747)
Total accumulated earnings	**22,487,773**	**20,814,392**
Net result for the period	**3,765,281**	**3,035,956**
Total retained earnings	**26,253,054**	**23,850,348**

- Amounts stated in millions of Colombian pesos -

Surpluses paid during the year were $1,748,005 (2022: $1,850,776), ordinary was $910,787 (2022: $1,009,514) and extraordinary was $837,218 (2022: $841,262).

Note 20.

Accumulated other comprehensive income

The detail of each component of other comprehensive income in the separate statement of financial position and the corresponding tax effect is as follows:

Accumulated other comprehensive income	2023			2022		
	Gross	Tax effect	Net	Gross	Tax effect	Net
Reclassification of property, plant and equipment and other assets reclassified to investment property	13,439	(1,360)	12,079	13,439	(1,360)	12,079
New measurements of defined benefit plans	(46,682)	17,377	(29,305)	52,800	(18,465)	34,335
Equity investments measured at fair value through equity	2,361,666	(187,815)	2,173,851	2,901,116	(270,475)	2,630,641
Participation in the other comprehensive income of subsidiaries	469,477	(104,921)	364,556	2,187,083	(84,224)	2,102,859
Cash flow hedges	(202,637)	(251,333)	(453,970)	(1,129,928)	478,898	(651,030)
Hedges of net investments in foreign businesses	6,098	-	6,098	(277,654)	-	(277,654)
Total	**2,601,361**	**(528,052)**	**2,073,309**	**3,746,856**	**104,374**	**3,851,230**

During the period, net earnings of $2,543,485 (2022: $925,269 net loss) previously recognized in other comprehensive income were reclassified to results for the period, as a cash flow hedge.

For each component of comprehensive income, a reconciliation of the beginning and ending balances as of the cut-off date is presented below:

20.1. Component: reclassification of property, plant and equipment to investment property

The component of reclassification of property, plant and equipment to investment properties of other comprehensive income corresponds to transfers from property, plant and equipment to investment properties,

which are measured at fair value. Changes in fair value do not reclassify to profit or loss for the period.

Reclassification of property, plant and equipment to investment properties	2023	2022
Initial balance	12,079	12,079
Total	**12,079**	**12,079**

- Amounts stated in millions of Colombian pesos -

20.2. Component: new measurements of defined benefit plans

The component of remeasurements of defined benefit plans represents the cumulative value of actuarial gains or losses, the return on plan assets and changes in the effect of the asset ceiling, excluding values included in net interest on liabilities (asset) of net defined benefits. The net value of the new measurements is transferred to retained earnings and is not reclassified to results for the period.

Component new measurements of defined benefit plans	2023	2022
Initial balance	34,335	2,144
Result for the period from new measurements of defined benefit plans	(99,482)	52,230
Associated income tax (or equivalent)	35,842	(20,039)
Total	**(29,305)**	**34,335**

- Amounts stated in millions of Colombian pesos -

20.3. Component: equity investments measured at fair value through equit

The component of other comprehensive income from equity investments measured at fair value through equity represents the accumulated value of the gains or losses from the valuation at fair value less the values

transferred to retained earnings when these investments have been sold. Changes in fair value do not reclassify to profit or loss for the period.

Equity investments measured at fair value through equity	2023	2022
Initial balance	2,630,641	3,037,953
Net gains (losses) from changes in the fair value of equity investments	(539,450)	(136,838)
Associated income tax (or equivalent)	82,660	(270,474)
Total	**2,173,851**	**2,630,641**

- Amounts stated in millions of Colombian pesos -

20.4. Component: share participation in the other comprehensive income of subsidiaries

The component of the other comprehensive income of participation in the other comprehensive income of subsidiaries represents the accumulated value of the application of the equity method to the gains and losses of the other comprehensive income of the subsidiaries. The accumulated value of the gains or losses will be reclassified to the results of the period or to retained earnings, depending on the items that originated the equity method, when these investments have been sold.

Share participation in the other comprehensive income of subsidiaries	2023	2022
Initial balance	2,102,859	1,215,372
New measurements of defined benefit plans	(100,609)	64,358
Equity investments measured at fair value through equity	(316,388)	(76,037)
Hedging	(1,480)	893
Result for conversion of foreign businesses	(1,300,398)	1,010,059
Associated income tax (or equivalent)	(1,184)	(56,029)
Total other comprehensive income for the period	**(1,720,059)**	**943,244**
Retained earnings (losses) transferred to retained earnings/loss for the period - Reclassification of property, plant and equipment and other assets	-	(138)
Earnings transferred to retained earnings for the period -Equity investments measured at fair value through equity	14	(1,953)
Accumulated gain (losses) transferred to accumulated profits/losses for the period - Hedging operations	(143)	(439)
Accumulated losses transferred to retained earnings for the period -Results from foreign business conversion	(18,184)	(3,430)
Associated income tax (or equivalent) - Accumulated gains (losses) transferred to accumulated profits/losses for the period	49	(49,797)
Total other accumulated comprehensive income	**(18,264)**	**(55,757)**
Total	**364,536**	**2,102,859**

- Amounts stated in millions of Colombian pesos -

20.5. Component: cash flow hedges

The component of other comprehensive income of cash flow hedges represents the cumulative value of the effective portion of the gains or losses that arise from changes in the fair value of items hedged in a cash flow hedge. Accumulated value of gains or losses will be reclassified to profit or loss only when the hedged transaction affects profit or loss, or the highly probable transaction is not expected to occur or is included as part of it carrying amount in an item non-financial cover.

Cash flow hedges	2023	2022
Initial balance	(651,030)	(343,034)
Gains (losses) from changes in the fair value of hedging instruments	(2,095,092)	328,945
Associated income tax (or equivalent)	467,075	(165,738)
Accumulated gains (losses) from changes in the fair value of hedging instruments reclassified to profit or loss for the period	2,543,485	(925,269)
Associated income tax (or equivalent)	(621,080)	379,908
Associated income tax (or equivalent)	(97,328)	74,158
Total	**(453,970)**	**(651,030)**

- Amounts stated in millions of Colombian pesos -

20.6. Component: Hedges of net investments in foreign businesses

The component of other comprehensive income from hedges of net investments in foreign operations represents the accumulated value of the effective portion of the gains or losses that arise from changes in the value of the hedging instrument. The accumulated value of the gains or

losses will be reclassified to the results of the period only when the total or partial disposal of the covered foreign investment affects the result of the period.

Hedges of net investments in foreign businesses	2023	2022
Initial balance	(277,654)	(61,509)
Gains (losses) from changes in the value of the hedging instrument	283,752	(216,145)
Total	**6,098**	**(277,654)**

- Amounts stated in millions of Colombian pesos -

The income tax associated with the hedge of net investments in foreign businesses as of December 31, 2023 amounts to $97,328.

Note 21.

Loans and borrowings

The following is the detail of the carrying amount of loans and borrowings measured at amortized cost:

Loans and borrowings	2023	2022
Non-current		
Commercial bank loans	3,306,049	2,475,741
Multilateral bank loans	651,359	761,044
Development bank loans	1,838,971	1,807,226
Bonds and titles issued	11,380,704	14,076,691
Total other credits and non-current loans	**17,177,083**	**19,120,702**
Current		
Commercial bank loans	1,193,105	188,942
Multilateral bank loans	125,588	402,199
Development bank loans	218,803	266,385

Development bank loans	218,803	266,385
Bonds and titles issued	1,370,505	467,167
Total other current loans and borrowings	**2,908,001**	**1,324,693**
Total other loans and borrowings	**20,085,084**	**20,445,395**

- Amounts stated in millions of Colombian pesos -

The company's new loans were acquired in order to:

Entity	Destination
Club Deal	Resources destined to finance the general plan of investments in infrastructure, expansion, replacement and growth of the water, sanitation, transmission, energy and gas distribution businesses.
AFD	Partially finance the 2021-2025 investment plan in the water, sanitation, energy and photovoltaic power plant-Tepuy businesses
SANTANDER	Working Capital
BNP	Working Capital

During 2023, the following loan disbursements were received:

- March: BNDES long-term loan for USD 5.7 million, (equivalent in COP to 26,868).
- July: Club Deal long-term loan for USD 120 million, (equivalent in COP to 494,273.
- August: Club Deal long-term loan for USD 100 million, (equivalent in COP to 395,523.
- September: AFD long-term loan for USD 100 million, (equivalent in COP 392,828.
- November: AFD long-term loan for USD 51 million, (equivalent in COP to 210,003, BNP Treasury Credit for USD 170 million, equivalent in COP to 673,807, Club Deal long-term credit for USD 84 million, equivalent in COP to 334,376.
- December: BNP Treasury Credit for USD 30 million, (equivalent in COP to 118,291, Santander Treasury Credit for USD 100 million, equivalent in COP to 392,577).

The detail of loans and borrowings is as follows:

Entity or borrowing	Original currency	Initial date	Term	Nominal interest rate	2023				2022			
					IRR	Nominal value	Amortized cost value	Total amount	IRR	Nominal value	Amortized cost value	Total amount
BONDS CPI III TRAMO	COP	21/04/2009	15	CPI + 6.24%	17.09%	198,400	5,950	204,350	20.01%	198,400	5,929	204,329
BONDS CPI IV TRAM 3	COP	14/12/2010	20	CPI + 4.94%	15.78%	267,400	(473)	266,927	18.40%	267,400	(1,324)	266,076
BONDS CPI V TRAMO II	COP	4/12/2013	10	CPI + 4.52%	0.00%	-	-	-	18.44%	96,210	566	96,776
BONDS CPI V TRAM III	COP	4/12/2013	20	CPI + 5.03%	16.00%	229,190	(1,017)	228,173	18.58%	229,190	(1,142)	228,048
BONDS CPI VI TRAMO II	COP	29/07/2014	12	CPI + 4.17%	15.16%	125,000	1,954	126,954	17.71%	125,000	1,968	126,968
BONDS CPI VI TRAM III	COP	29/07/2014	20	CPI + 4.5%	15.43%	250,000	2,010	252,010	17.98%	250,000	2,584	252,584
BONDS CPI V TRAM IV	COP	20/03/2015	9	CPI + 3.65%	0.00%	-	-	-	18.26%	130,000	941	130,941
BONDS CPI VII TRAMO II	COP	20/03/2015	12	CPI + 3.92%	14.69%	120,000	(132)	119,868	17.32%	120,000	(638)	119,362
BONDS CPI VII TRAM III	COP	20/03/2015	20	CPI + 4.43%	15.13%	260,000	(409)	259,591	17.71%	260,000	(1,125)	258,875
BID-1664-1	COP	31/03/2016	10	7.8%	9.36%	94,923	138	95,061	9.16%	142,385	425	142,810
BID 2120-1	COP	27/05/2014	9	6.272%	0.00%	-	-	-	8.72%	190,295	1,760	192,055
BANK OF TOKYO-MITSUB	USD	29/09/2008	15	Libor 6M + 0.95%	0.00%	-	-	-	5.92%	80,099	1,371	81,470
GLOBAL 2024 COP	COP	10/09/2014	10	7.625%	7.73%	965,745	21,328	987,073	7.73%	965,745	20,425	986,170
AGRARIO	COP	24/06/2014	16	IBR + 2.4%	14.16%	73,073	936	74,009	14.45%	84,673	1,233	85,906
AFD	USD	10/08/2012	15	4.311%	4.39%	430,866	7,777	438,643	4.40%	677,827	12,051	689,878
BID 2120-2	COP	23/08/2016	18	7.5%	9.06%	262,903	539	263,442	9.10%	287,942	266	288,208
BNDES	USD	26/04/2016	24	4.887%	4.79%	373,618	3,929	377,547	4.76%	472,047	5,984	478,031
GLOBAL 2027 COP	COP	8/11/2017	10	8.375%	8.46%	4,165,519	51,394	4,216,913	8.46%	4,165,519	51,346	4,216,865
BID 2120-3	COP	8/12/2017	16	6.265%	7.61%	130,888	595	131,483	7.64%	143,354	627	143,981
CAF	USD	3/10/2016	18	SOFR 6M + 3.53%	8.76%	646,808	17,465	664,273	8.30%	888,037	17,767	905,804
1023 BONDS USD	USD	18/07/2019	10	4.25%	4.39%	3,822,050	56,098	3,878,148	4.39%	4,810,200	67,110	4,877,310
BID 2120-4	COP	17/06/2020	14	5%	6.07%	284,124	2,837	286,961	6.08%	311,184	3,534	314,718
BONDS USD 2030	USD	15/07/2020	11	4.375%	4.60%	2,197,679	13,520	2,211,199	4.60%	2,765,865	13,690	2,779,555
FINDETER	COP	28/01/2021	3	0%	0.00%	1,839	-	1,839	0.00%	23,903	-	23,903
BBVA	COP	18/05/2021	3	IBR 1M + 0.1%	12.53%	382	2	384	11.22%	763	7	770
BBVA	COP	18/05/2021	3	IBR 1M + 0.1%	12.53%	4,969	25	4,994	11.23%	9,938	85	10,023
BBVA	COP	18/05/2021	2	IBR 1M + 0.1%	0.00%	-	-	-	11.18%	8,568	55	8,623

JP MORGAN	COP	24/11/2021	5	IBR OIS + 2.477%	15.44%	979,250	9,848	989,098	14.09%	979,250	10,888	990,138
AFD	USD	18/09/2023	9	SOFR 6M + 2.12%	7.67%	577,130	182	577,312	0.00%	-	(102)	(102)
UMB BANK	USD	19/12/2022	5	SOFR 3M + 2.2%	8.23%	2,308,518	(29,832)	2,278,686	7.59%	1,443,060	(19,489)	1,423,571
BANCO POPULAR	COP	2/12/2022	1	IBR 3M + 6.62%	0.00%	-	-	-	17.74%	120,000	1,749	121,749
BNP TESORERIA	USD	15/11/2023	1	SOFR 1M + 2.25%	7.61%	649,749	2,335	652,084	0.00%	-	-	-
BNP TESORERIA	USD	22/12/2023	1	SOFR 1M + 2.25%	7.61%	114,662	242	114,904	0.00%	-	-	-
SANTANDER TESORERIA	USD	20/12/2023	1	SOFR 1M + 2.25%	7.61%	382,205	969	383,174	0.00%	-	-	-
Comisiones	USD	1/12/2023			0.00%	-	(16)	(16)	0.00%	-	-	-
						19,916,890	**168,194**	**20,085,084**		**20,246,854**	**198,541**	**20,445,395**

- Amounts stated in millions of Colombian pesos -

At the end of the period, the following movements were associated with credits and loans, and for the purposes of presentation in the statement of cash flows, they are disclosed in the following items: i) obtaining public loans and treasury for $3,038,546 (December 2022: $1,706,272); ii) public credit and treasury payments $980,928 (December 2022: $2,079,859); iii) transaction costs for issuance of debt instruments of $18,381 (December 2022: $26,657).

Interest paid for credit operations as of December 2023 was: $1,492,111 and (2022: $1,257,578).

Net income due to debt-related exchange difference recognized in profit or loss for the period was $380,597 (2022 $409,672 net loss) and the capitalized exchange difference in eligible assets was: $0 (2022 $4,962.)

As of the cut-off date, the loans used as hedging instruments for net investments in foreign businesses are those contracted with CAF and AFD and had designated USD 282 million (equivalent to COP 1,077,675) for 2023. Difference has been reclassified from the profit or loss for the period to other comprehensive income by $283,752 (2022: $216,145).

The information on the bonds issued is as follows:

Subseries	Original Currency	Initial Date	Term	Nomina Interest Rate	2023				2022				Amount awarded								
					IRR	Nominal amount	Amortizad Cost Amount	Total amount	IRR	Nominal amount	Amortizad Cost Amount	Total amount	Amount awarded to 2021	Amount awarded to 2020	Amount awarded to 2019	Amount awarded to 2018	Amount awarded to 2017	Amount awarded to 2016	Amount awarded to 2015	Amount awarded to 2014	Amount awarded to 2013
A10a	COP	4/12/2013	10	IPC + 4.52%	0.00%	0	0	0	18.44%	96,210	566	96,776	96,210	96,210	96,210	96,210	96,210	96,210	96,210	96,210	96,210
A10a	COP	20/03/2015	9	IPC + 3.65%	0.00%	0	0	0	18.26%	130,000	941	130,941	130,000	130,000	130,000	130,000	130,000	130,000	130,000		
A12a	COP	29/07/2014	12	IPC + 4.17%	15.16%	125,000	1,954	126,954	17.71%	125,000	1,968	126,968	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	0
A12a	COP	20/03/2015	12	IPC + 3.92%	14.69%	120,000	(132)	119,868	17.32%	120,000	(638)	119,362	120,000	120,000	120,000	120,000	120,000	120,000	120,000	0	0
A15a	COP	21/04/2009	15	IPC + 6.24%	17.09%	198,400	5,950	204,350	20.01%	198,400	5,929	204,329	198,400	198,400	198,400	198,400	198,400	198,400	198,400	198,400	198,400
A20a	COP	14/12/2010	20	IPC + 4.94%	15.78%	267,400	(473)	266,927	18.40%	267,400	(1,324)	266,076	267,400	267,400	267,400	267,400	267,400	267,400	267,400	267,400	267,400
A20a	COP	4/12/2013	20	IPC + 5.03%	16.00%	229,190	(1,017)	228,173	18.58%	229,190	(1,142)	228,048	229,190	229,190	229,190	229,190	229,190	229,190	229,190	229,190	229,190
A20a	COP	29/07/2014	20	IPC + 4.5%	15.43%	250,000	2,010	252,010	17.98%	250,000	2,584	252,584	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	0
A20a	COP	20/03/2015	20	IPC + 4.43%	15.13%	260,000	(409)	259,591	17.71%	260,000	(1,125)	258,875	260,000	260,000	260,000	260,000	260,000	260,000	260,000	0	0
International bonds	COP	10/09/2014	10	7.625%	7.73%	965,745	21,328	987,073	7.73%	965,745	20,425	986,170	965,745	965,745	965,745	965,745	965,745	965,745	965,745	965,745	0
International bonds	COP	8/11/2017	10	8.375%	8.46%	4,165,520	51,394	4,216,914	8.46%	4,165,519	51,346	4,216,865	4,165,519	4,165,519	3,530,000	2,300,000	2,300,000	0	0	0	0
International bonds	USD	18/07/2019	10	4.25%	4.39%	3,822,051	56,098	3,878,149	4.39%	4,810,200	67,110	4,877,310	3,981,160	3,432,500	3,277,140	0	0	0	0	0	0
International bonds	USD	15/07/2020	11	4.375%	4.60%	2,197,680	13,520	2,211,200	4.60%	2,765,865	13,689	2,779,554	2,289,167	1,973,688	0	0	0	0	0	0	0
TOTAL						12,600,986	150,223	12,751,209		14,383,529	160,329	14,543,858	13,077,791	12,213,652	9,449,085	4,941,945	4,941,945	2,641,945	2,641,945	2,131,945	791,200

- Amounts stated in millions of Colombian pesos, the exchange rate used was the closing TRM of each period -

Covenant debt / EBITDA

The EPM Group has different financial commitments (covenant), established in the loan contracts signed with the French Development Agency - AFD, Inter-American Development Bank, CAF - Development Bank of Latin America, National Bank for Economic and Social Development - BNDES, JPMorgan and the Deal Club (BNP Pariba, BBVA, Scotiabank and Sumitomo). These contracts include some of the following covenants: Net Debt/EBITDA LTM, EBITDA/Financial Expenses, EBITDA/Net Financial Expenses, and Long-Term Debt/Equity.

At the end of December 2023, EPM was in compliance with the agreed financial covenants.

Non-compliance

During the accounting period, the company has paid the principal and interest on its loans.

Note 22.

Trade and other payables

Trade and other payables are measured at amortized cost and are established of:

Trade and other payable	2023	2022
Non-current		
Acquisition of goods and services	628	628
Deposits received in guarantee	8,717	7,465
Total non-current trade and other payables	**9,345**	**8,093**
Current		
Creditors [1]	1,128,962	806,877
Acquisition of goods and services	694,124	699,409
Allocated subsidies [2]	80,914	56,900
Commissions payable	2,110	2,110
Other accounts payable	316	331
Deposits received in guarantee	310	310
Total current trade and other payables	**1,906,736**	**1,565,937**
Total trade and other payables	**1,916,081**	**1,574,030**

-Amounts stated in millions of Colombian pesos-

[1] *Increase in the registration of estimates for the commercial operation. It also includes insurance, the product of the all-risk policy for the construction and assembly of the second stage of the Ituango hydroelectric plant.*

[2] *It increased subsidies in the following items: aqueduct service $14,502, sewerage $7,048, energy $2,369, and gas service $95.*

The term for payment to suppliers is generally 30 days with the exception of:

- Payments less than ten (10) current legal monthly minimum wages (SMMLV for its Spanish initials).
- Those destined to cover sanctions, fines and indemnities and taxes.
- And the others that apply according to the business rule 2019-RN-107.

Non-compliance

During the accounting period, the company has not defaulted on payments to trade and other payables.

Note 23.

Other financial liabilities

Other financial liabilities are established of:

Other financial liabilities	2023	2022
Non-current		
Lease liability [3]	2,956,914	2,693,349
Pension bonds [2]	134,693	111,463
Financial liabilities measured at fair value through profit or loss for the period	14	-
Derivatives for cash flow hedging purposes [3] (see note 24)	906,328	4,065
Total other non-current financial liabilities	**3,997,949**	**2,808,877**
Current		
Lease liability [3]	74,592	70,966
Financial liabilities measured at fair value through profit or loss for the period [1]	-	49,090
Pension bonds [2]	487,284	416,760
Derivatives for cash flow hedging purposes	8	-
Total other current financial liabilities	**561,884**	**536,816**
Total other financial liabilities	**4,559,833**	**3,345,693**

- Amounts stated in millions of Colombian pesos -

[1] *It includes the valuation of the premium of the climate derivative, the objective of which is to have the hedge of the risk in income due to the occurrence of extreme weather events that affect rainfall and, therefore, the contractual commitments of energy generation. The change in financial liabilities measured at fair value is due to the fact that the last instalment of the climate derivative premium was paid in 2023.*

[2] *It includes the following items: payment of pension bonds of $43,278 and payment of lease liabilities of $15,546 reflected in the statement of cash flows*

[3] *The variation is due to the revaluation of 20.54% so far this year and the higher interest rates, specifically the IBR, due to the fact that the right is devalued considerably, increasing the obligation in the fair value account.*

23.1 Financial liabilities designated at fair value through profit or loss

Financial liability for premiums payable for the weather derivative, which has been contracted to cover dry seasons that imply a decrease in

hydraulic generation and the rise in energy prices on the stock market. It is measured at fair value through profit or loss, in order to achieve asymmetry or "match" the financial asset (derivative/option, valued at fair value through profit or loss) with the financial liability (premiums payable).

23.1.2 Financial liabilities designated at fair value through profit or loss, with the effects of the change in credit risk of the liability recognized in profit or loss for the period

Concept	2023	2022
Gain (loss) for the period from changes in fair value attributable to changes in credit risk recognized in profit or loss for the period		1,169
Difference between the carrying amount and the value to be paid at the time of liquidation:	-	**(8,391)**
Carrying amount of the liability(s)	-	49,090
Amount to pay at the time of settlement	-	57,481
Total	-	**49,090**

- Amounts stated in millions of Colombian pesos -

The company has determined that presenting the effects of changes in the credit risk of a liability in other comprehensive income would create or increase an accounting asymmetry in the result of the period, this asymmetry is generated given that EPM's rating is BB+ and the NewRe is AA. It should be noted that this liability comes from a contract that is linked to an option-type derivative instrument, which represents an asset for EPM. The derivative instrument (asset) is valued at fair value (including credit risk) with changes in results since it is not designated in hedge accounting.

Note 24.

Derivatives and hedges

The company has the following types of hedge:

- Cash flow hedges, which consists of covering the variation in future cash flows attributable to certain risks, such as interest rate and exchange rate that can impact results, whose fair values at the end of the reporting period amount to:
  - Swaps: A net obligation of $906,328 (See note 23. Other financial liabilities) (2022: Net obligation $459,935).

    See note 23 | Other financial liabilities

    The hedging relationship is effective taking into account that the fundamental financial conditions (such as nominal, interest rate, payment and maturity dates) of the hedging instrument and the hedged item match, in accordance with IFRS 9, on the basis from a qualitative assessment of such fundamental conditions, that the hedging instrument and the hedged item have values that will generally move in opposite directions due to the same risk and, therefore, that there is an economic relationship between the hedged item and the hedging instrument.
- Hedges of net investments in foreign operations, whose objective is to cover the equity for the exchange rate risks that EPM may have, by the equity method in the effect of conversion of financial statements in investments in subsidiaries with dollar functional currency for further details, See note 21 | Loans and borrowings and See note 20 | Accumulated other comprehensive income. The effectiveness tests of these hedges are carried out with the "less than" test, which consists of identifying the effectiveness as the lower accumulated value between the valuation of the hedging instrument and that of the hedged item, and any difference is considered ineffective recognized in the result of the period.

See note 42 | Financial Risk Management Objectives and Policie

The risks that have been covered in these operations are presented below, for more detail (See note 42 Financial risk management objectives and policies):

Hedge Classification	Description	Hegde Risk	Section	Hedged item	Carrying amount hedged item	Carrying amount hedging instrument	Changes in the fair value of the hedging instrument in the period	Changes in the fair value of the hedged item in the period	Hedge Ineffectiveness recognized in profit or loss for the period	Hedge Effectiveness recognized in other comprehensive income	Reclassification of other comprehensive income to profit or loss for the period [1]
Cash Flow Hedging											
Swaps	Cross Currency Swap	USD/COP Exchange Rate and SOFR/Fixed Debt Service Interest Rate	International Bonds & Club Deal	Credit in Dollars	8,368,033	(906,328)	(1,366,262)	711,168	N.A	(1,366,262)	(2,205,381)
Hegde of net investment abroad	The hedging instrument is loans in USD that are not covered and do not capitalize, in this case they would be CAF and AFD.	USD/COP Exchange Rate	Investments in subsidiaries in HET, PDG and MaxSeguros.	Investments in subsidiaries with USD functional currency	1,280,299	1,077,675	(568,289)	(134,416)	(21,898)	(235,961)	-

- Amounts stated in millions of Colombian pesos -

[1] *The reclassification of other comprehensive income to profit or loss for the period, for swap instruments, affected the interest item, exchange difference, interest exchange difference and the principal of the right. In addition, $45,091 was capitalized as borrowing costs mainly to the Ituango project.*

Foreign exchange risk hedging operations are part of the public debt regulated in Decree 1068 of 2015, therefore, they require the general approval of the operation via resolution, as well as the official authorization of each of the confirmation letters that will be signed with the financial institutions with the potential to participate in the respective operations.

Decree 1575 of 2022, presented some modifications to Decree 1068 of 2015, in the sense of incorporating greater efficiency in the process of obtaining authorizations to manage the risks of the market of derivatives of financial liabilities in dollars, so that when it comes to public credit operations or similar subject to the approval of the Ministry of Finance and Public Credit, These operations may be authorized simultaneously in the same resolution together with the risk hedging operations. In any case, the authorized entity may only contract the risk hedging operation on the amounts effectively disbursed from the public credit operation or assimilated in whole or in part.

Cash flow hedge

The Company expects the cash flows that are under cash flow hedging accounting to be realized in the period between January 1, 2023 and February 15, 2031, for more details See note 42 | Financial Risk Management Objectives and Policies, numeral 42.1 Market Risk

The characteristics of the main cash flow hedging instruments that fall under hedge accounting are as follows:

Current Hedge								
Characteristisc								
Covered Underlying	Bonds 2029	Bonds 2029	Bonds 2029	Bonds 2029	Bonds 2029	Bonds 2029	Bonds 2029	Bonds 2029
Closing Date	8-jun-20	7-jul-20	10-jul-20	15-jul-20	15-jul-20	9-nov-20	12-nov-20	18-may-21
Derived Type	CCS	CCS	CCS	CCS	CCS	CCS	CCS	CCS
Counterpart	BNP Paribas	JP Morgan	JP Morgan	Scotia Bank	Goldman Sachs	Goldman Sachs.	BBVA	Merrill Lynch
Face (USD)	100,000,000	50,000,000	100,000,000	100,000,000	100,000,000	125,000,000	125,000,000	100,000,000
Spot exchange rate	3,597	3,627	3,617	3,606	3,608	3,657	3,642	3,649
Expiration Date	18-jul-29	18-jul-29	18-jul-29	18-jul-29	18-jul-29	18-jul-29	18-jul-29	18-jul-29

* CCS: Cross Currency Swap

Current Hedge								
Characteristics								
Covered Underlying	Bonds 2029	Bonds 2029	Bonds 2031	Bonds 2031	Bonds 2031	Bonds 2031	Bonds 2031	Bonds 2031
Closing Date	2-jun-21	3-jun-21	11-sep-20	16-sep-20	22-oct-20	23-oct-20	29-ene-21	11-mar-21
Derived Type	CCS	CCS	CCS	CCS	CCS	CCS	CCS	CCS
Counterpart	BANCO BILBAO VIZCAYA ARGENTARIA, S.A.	Merrill Lynch International	JP Morgan	JP Morgan	Sumitomo Mitsui Banking Corporation, New York Branch	JP Morgan	BNP Paribas	Goldman Sachs
Face (USD)	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	75,000,000	75,000,000
Spot exchange rate	3,638	3,647	3,709	3,708	3,774	3,774	3,568	3,525
Expiration Date	18-jul-29	18-jul-29	15-feb-31	15-feb-31	15-feb-31	15-feb-31	15-feb-31	15-feb-31

* CCS: Cross Currency Swap

Current Hedge Characteristics							
Covered Underlying	Bonds 2031	Club Deal	Club Deal	Club Deal	Club Deal	Club Deal	Club Deal
Closing Date	4-jun-21	10-jul-23	12-jul-23	13-jul-23	18-jul-23	23-oct-23	4-dic-23
Derived Type	CCS	CCS	CCS	CCS	CCS	CCS	CCS
Counterpart	CITIBANK	Scotia Bank	Scotia Bank	JP Morgan	BNP Paribas	JP Morgan	JP Morgan
Face (USD)	25,000,000	100,000,000	100,000,000	100,000,000	120,000,000	100,000,000	84,000,000
Spot exchange rate	3,602	4,157	4,133	4,103	3,990	4,214	3,999
Expiration Date	15-feb-31	17-dic-27	17-dic-27	17-dic-27	17-dic-27	17-dic-27	17-dic-27

* CCS: Cross Currency Swap

Non-Hedging Climate Derivative

EPM currently has a risk hedge called "Climate Derivative" which is based on a put option and whose objective is to have hedge of the risk in income due to the occurrence of extreme weather events that affect rainfall and therefore the contractual commitments of power generation. It also serves to protect the exposure to risk due to purchases on the energy exchange in these periods, which consequently also increases. Under this hedge, all the impact that the company could receive due to the non-generation and non-compliance with contractual commitments is transferred to the reinsurance market.

Embedded derivatives

The company has not formalized contracts that contain embedded derivatives.

Derivatives that are not under hedge accounting

The company has formalized contracts that contain derivatives that are not under hedge accounting See note 13 | Other financial assets

Note 25.

Employee benefits

The item of benefits to employees recognized at the cut-off date presents the following composition:

Employee benefits	2023	2022
Non-current		
Post-employment benefits	350,647	242,543
Long term benefits	58,483	42,959
Total non-current employee benefits	409,130	285,502
Current		
Short-term benefits	167,250	140,635
Post-employment benefits	82,286	68,400
Total current employee benefits	249,536	209,035
Total	658,666	494,537

- Amounts stated in millions of Colombian pesos -

25.1. Post-employment benefi

Includes defined benefit plans and defined contribution plans detailed below:

25.1.1. Defined benefit plans

Defined benefit plans	Pensions [1]		Retroactive severance [2]		Educational aid plan [3]		Total	
	2023	2022	2023	2022	2023	2022	2023	2022
Present value of defined benefit obligations								
Initial balance	313,115	380,036	84,911	91,169	10	22	398,036	471,227
Present service cost	-		2,155	2,548	-	-	2,155	2,548
Interest income or (expense)	39,732	30,347	9,558	6,415	1	-	49,291	36,762
Assumptions from experience	831	2,318	18,347	10,974	-	(3)	19,178	13,289
Demographic assumptions	-		(2)	2	-	-	(2)	2
Financial assumptions	76,651	(61,618)	8,640	(9,804)		1	85,291	(71,421)
Past Service Cost	(719)	-	10,632	-	-	-	9,913	-
Payments made by the plan [4]	(43,105)	(37,968)	(23,025)	(16,392)	(5)	(10)	(66,135)	(54,370)
Present value of obligations as of December 31	**386,505**	**313,115**	**111,216**	**84,912**	**6**	**10**	**497,727**	**398,037**

Fair value of plan assets								
Initial balance	87,094	125,638	-	-	-	-	87,094	125,638
Payments made by the plan [4]	(36,698)	(41,299)	-	-	-	-	(36,698)	(41,299)
Interest income or (expense)	9,384	8,656	-	-	-	-	9,384	8,656
Expected return on the plan (excluding interest income)	5,196	(5,902)	-	-	-	-	5,196	(5,902)
Fair value of plan assets December 31	**64,976**	**87,094**	**-**	**-**	**-**	**-**	**64,976**	**87,094**
Surplus or (deficit) of the defined benefit plan	**321,529**	**226,021**	**111,216**	**84,912**	**6**	**10**	**432,751**	**310,943**
Net asset or (liability) of the defined benefit plan	**321,529**	**226,021**	**111,216**	**84,912**	**6**	**10**	**432,751**	**310,943**
Total defined benefits	**321,529**	**226,021**	**111,216**	**84,912**	**6**	**10**	**432,751**	**310,943**

- Amounts stated in millions of Colombian pesos -

[1] It includes a retirement pension plan recognized prior to the entry into force of the General Pension System of Law 100 of 1993 with their respective substitutions, which are distributed in the actuarial calculation by groups, differentiating the lifetime, those shared with Colpensiones, the pension substitutions and those that generate retirement share. The plan is made up of EPM retirees and retirees belonging to the pension commutation due to the liquidation of the Antioquia Energy Company EADE. It includes social security contributions and funeral assistance. Retirement pensions are legal under the parameters of Law 6 of 1945 and Law 33 of 1985. No risks have been identified for EPM generated by the plan. During the period, the plans have not undergone modifications, reductions or liquidations that represent a reduction in the present value of the obligation.

[2] It includes a retroactive severance plan, it is a post-employment benefit that applies to approximately 8% of EPM's employees, it consists of the recognition of an average monthly salary multiplied by the years of service, payable through advances and at the time of termination of the contract. The source of the plan is the "Sixth Law of 1945 which enacts certain provisions on labour agreements, professional associations, collective disputes and special labour jurisdiction" and National Decree 1160 of 1989, which partially regulates Law 71 of 1988, which issues rules on pensions and other provisions. For the Retroactive Severance Plan, no possible risks or significant modifications are identified during the period.

The cost for past services in the severance plan corresponds to compliance with a court ruling in which EADE personnel who were dismissed from the entity in 2006 had to be reinstated. Severance pay (one month's salary) will be recognized according to the legal basis Law 344/1996, Law 1071/2006 and Decree 1045/1978, which dictate rules that regulate the payment of definitive or partial severance pay to public servants, establish penalties and set terms for their cancellation.

[3] It includes an educational aid plan that is granted for each of the children of EPM retirees, who are entitled to it, including aid for secondary, technical or university studies. It has its origin in article 9 of Law 4 of 1976, which dictates rules on pension matters in the public, official, semi-official and private sectors and provides that companies or employers shall grant scholarships or grants for secondary, technical or university studies to the children of their retired personnel, under the same conditions as they grant or establish for the children of active workers.

The weighted average duration in years of defined benefit plan obligations as of the cut-off date is presented below:

Benefit	2023		2022	
	From	Until	From	Until
EPM Pension	6.8	8.8	6.0	7.7
Educational Aid EPM	0.5	0.5	0.5	0.5
Retroactive layoffs	3.2	3.2	3.6	3.6

[4] Includes $66,135 (2022: $54,370) of values paid for plan settlements, corresponding to pensions, retroactive severance and educational assistance plan.

The company has no restrictions on the actual realization of the defined benefit plan surplus.

The company did not make defined benefit contributions during 2023 and does not expect to make contributions for the next annual period.

The fair value of the plan's assets is composed as follows:

Assets supporting the plan	2023		2022	
	% Participation	Fair Value	% Participation	Fair Value
Cash and cash equivalents	0.69%	453	1.00%	869
Total equity instruments		**453**	**1.00%**	**869**
Debt Instruments				
AAA	35.10%	23,256	87.10%	75,854
AA	8.89%	5,777	6.88%	5,995
Nation	46.00%	29,892	-	-
Unrated	9.32%	6,053	4.67%	4,071
Investment funds	-	-	0.35%	304
Total debt instruments	**99.31%**	**64,977**	**99.00%**	**86,225**
Other assets				
Total assets supporting the plan	**100.00%**	**65,430**	**100.00%**	**87,094**

- Amounts stated in millions of Colombian pesos -

The main actuarial assumptions used to determine the obligations for the defined benefit plans are the following:

Assumptions	Post-employment benefits	
	2023	2022
Discount rate (%)	10.6 -10.8	13.60 - 12.2
Annual salary increase rate (%)	5.5	5.5
Actual rate of return on plan assets	21.95	2.59
Future annual pension increase rate	4.5	4.5
Annual inflation rate (%)	4.5	4.5
Survival tables	Valid renters 2008	

The following table shows the effect of a variation of plus 1% and minus 1% in the salary increase, in the discount rate and in the increase in the benefit on the obligation for defined post-employment benefit plans:

Assumptions	Increase in discount rate by +1%	Decrease in discount rate by -1%	Increase in wage increase by +1%	Decrease in wage increase by -1%	Increase in profit increase by +1%	Decrease in profit increase by -1%
EPM Pension	272,747	307,718	-	-	-	-
EPM Social Security Contributions	21,774	24,479	-	-	-	-
EPM Educational Aid	6	6	-	-	6	6
EADE Pension	68,136	79,985	-	-	-	-
EADE Social Security Contributions	749	856	-	-	-	-
Retroactive layoffs	108,347	114,248	116,530	106,105	-	-
Total Post-Employment Benefits	471,759	527,291	116,530	106,105	6	6

- Amounts stated in millions of Colombian pesos -

The methods and assumptions used to prepare the sensitivity analysis of the Present Value of Obligations (DBO) were carried out using the same methodology as for the actuarial calculation as of December 31, 2023: Projected Credit Unit (PUC). Sensitivity does not present limitations, nor changes in the methods and assumptions used to prepare the analysis of the current period.

Calculation of liabilities and pension commutations in accordance with tax requirements

Resolution 037 of 2017 issued by the General Accounting Office of the Nation established the obligation to disclose the calculation of pension liabilities in accordance with the parameters established in Decree 1625 of 2016 and Decree 1833 for pension commutations; therefore, the figures presented below do not correspond to the requirements of the IFRS adopted in Colombia.

Pension liabilities

The actuarial calculation of pensions was prepared with the following technical bases:

Actuarial Assumptions - Pension Obligation	2023	2022
Real technical interest rate	4.8	4.8
Salary increase rate	8.7	3.98
Pension increase rate	8.7	3.98
Mortality table	RV08 (Valid renters)	

The following table is the calculation of the pension liability with the above parameters:

Concept	2023		2022	
	Number of personnel	Obligation value	Number of personnel	Obligation value
Staff retired entirely by the Company	582	178,666	564	149,635
Staff retired with pension shared with Colpensiones	307	51,215	333	48,197
Beneficiary staff shared with Colpensiones	427	62,769	442	58,029
Staff retired with pension shared with other entities	402	32,574	458	45,467
Total	**1,718**	**325,224**	**1,797**	**301,328**

- Amounts stated in millions of Colombian pesos -

The pension bonds related to pension obligations are detailed below:

Concept	2023		2022	
	Number of employees	Reserve value	Number of employees	Reserve value
Type A pension bonus modality 1	225	3,788	230	3,388
Type A pension bonus modality 2	3,851	202,625	3,851	195,186
Type B pension bonus	1,913	321,672	1,913	318,276
Type T pension bonus	5	503	5	390
Contributions - Law 549	131	5,596	131	5,098
Difference	**6,125**	**534,184**	**6,130**	**522,338**

- Amounts stated in millions of Colombian pesos -

The differences between pension liabilities calculated under IFRS adopted in Colombia and tax pension liabilities are shown below:

	2023	2022
Pension liabilities under IFRS	312,265	256,200
Tax pension liabilities	859,414	823,676
Difference	**(547,149)**	**(567,476)**

- Amounts stated in millions of Colombian pesos -

Pension commutation liabilities

The actuarial calculation of pension commutation was prepared with the following technical bases:

Actuarial Assumptions - Pension commutation	2023	2022
Real technical interest rate	4.8	4.8
Salary increase rate	8.7	3.98
Pension increase rate	8.7	3.98
Mortality table	RV08 (Valid renters)	

The following table is the calculation of the pension commutation with the previous parameters:

Concept	2023		2022	
	Number of employees	Obligation value	Number of employees	Obligation value
Retired employees by the Company	70	19,045	74	17,728
Retired employees with pension shared with Colpensiones	337	53,306	338	47,391
Beneficiary employees shared with Colpensiones	63	7,801	62	6,419
Retired employees with pension shared with other entities	5	373	10	1,054
Total	**475**	**80,525**	**484**	**72,592**

- Amounts stated in millions of Colombian pesos -

The pension bonds related to the pension commutation liability are detailed below:

Concept	2023		2022	
	Number of employees	Reserve value	Number of employees	Reserve value
Type A pension bonus modality 1	11	43	11	39
Type A pension bonus modality 2	220	13,041	232	12,654
Type B pension bonus	193	25,674	198	23,914
Type T pension bonus	3	-	3	-
Other -Include type of pension bonus-	1	59	1	52
Difference	**428**	**38,817**	**445**	**36,659**

- Amounts stated in millions of Colombian pesos -

Below are the differences between the pension commutation liability calculated under IFRS adopted in Colombia and the tax pension commutation liability:

	2023	2022
Pension commutation liabilities under IFRS	74,430	56,925
Tax pension commutation liabilities	119,345	109,252
Difference	**(44,915)**	**(52,327)**

- Amounts stated in millions of Colombian pesos -

The company's policy is to prepare actuarial calculations for the annual closing of the period, therefore, the estimated data for 2023 are presented.

25.1.2. Defined contribution plan

The company made contributions to defined contribution plans of $93,699 (2022: $80,930) recognized in the result of the period as an expense of $28,359 (2022: $24,391), cost of $50,763 (2022: $43,561) and investment projects of $14,577 (2022: $12,978).

25.2. Long-term employee benefits

Long-term benefits	Seniority premium [1]	
	2023	2022
Present value of obligations for other long-term benefits		
Initial balance	42,959	46,978
Present service cost	4,484	4,924
Interest income or (expense)	5,520	3,698
Assumptions from experience	3,988	5,001
Financial assumptions	10,440	(7,077)
demographic assumptions	(423)	(202)
Past Service Cost	176	
Payments made by the plan	(8,661)	(10,363)
Final balance of the present value of obligations	**58,483**	**42,959**
Net liability for long-term benefits	**58,483**	**42,959**

- Amounts stated in millions of Colombian pesos -

For these benefits, the company does not have assets that support the plan.

[1] *Includes a seniority bonus plan. It is a long-term benefit granted to employees through the Collective Labor Agreement, in EPM it is granted based on years of continuous or discontinuous service. It is recognized and paid only once in the respective period and in accordance with the established terms: every 5 years, 12, 17, 23, 30, 35 and 40 days of basic salary will be paid, respectively. The form of payment can be in cash, in time off, or a combination of the two of the employee's choice. For the personnel who resign from the company to access the old-age or disability pension, they are entitled to proportional payment for the length of service, if they have less than one year left to complete the next five-year period at the time of separation. No potential risks are identified for the Seniority Premium plan.*

The cost for past service in the seniority bonus plan corresponds to compliance with a court ruling, where EADE staff had to be reinstated who had been dismissed from that entity in 2006. According to the Collective Bargaining Agreement Art.45, the same benefits are granted to EPM and EADE employees.

The weighted average length in years of long-term benefit plan obligations as of the cut-off date is presented below:

Benefit	2023		2022	
	From	Until	From	Until
Seniority Premium	6.1	6.1	5.5	5.5

The company does not expect to make contributions to the plan for the next annual period.

The main actuarial assumptions used to determine the obligations for the long-term employee benefit plans are the following:

Assumptions	Concept	
	2023	2022
Discount rate (%)	10.6	13.50
Annual salary increase rate (%)	5.85	5.85
Annual inflation rate (%)	4.5	4.50
Survival tables	RV08 (Valid renters)	

The following table shows the effect of a variation of plus 1% and minus 1% in the salary increase, in the discount rate and in the increase in the benefit on the obligation for long-term benefit plans:

Assumptions	Increase in the discount rate by +1%	Decrease in the discount rate by -1%	Increase in wage increase by +1%	Decrease in wage increase by -1%
Seniority Premium	55,442	61,871	62,262	55,046
Total long-term benefits	**55,442**	**61,871**	**62,262**	**55,046**

- Amounts stated in millions of Colombian pesos -

The methods and assumptions used to prepare the sensitivity analysis of the Present Value of Obligations (DBO) were carried out using the same methodology as for the actuarial calculation as of December 31, 2022: Projected Credit Unit (PCU). Sensitivity does not present limitations, nor changes in the methods and assumptions used to prepare the analysis of the current period.

25.3. Short-term employee benefits

The composition of short-term benefits is as follows:

Short-term benefits	2023	2022
Payroll payable	12,244	11,161
Severance	66,472	52,987
Interest over severance	7,941	6,328
Vacation	25,414	22,372
Vacation bonus	51,846	44,671
Christmas bonus	77	396
Bonuses	3,176	2,716
Other premiums	80	4
Total short-term benefits	**167,250**	**140,635**

- Amounts stated in millions of Colombian pesos -

Note.26

Taxes, contributions and rates payable

The detail of taxes, contributions and fees, other than income tax, is as follows:

Taxes, contributions and fees payable	2023	2022
Current		
Withholding [1]	146,639	133,213
Industry and commerce tax [2]	56,751	35,045

Rates [3]	49,358	39,997
Customs tax and surcharges [4]	9,323	16,512
Value added tax	6,461	5,751
Contributions	3,594	3,259
Other national taxes [5]	3,224	25,366
Other municipal taxes	7	109
Total Current taxes, contributions and fees payable	**275,357**	**259,252**
Total Taxes, contributions and fees payable	**275,357**	**259,252**

- Amounts stated in millions of Colombian pesos -

[1] *The Accrued value in December 2023 was higher than in December 2022, due to the lower amount to be paid for the concept of self-withholdings.*

[2] *The increase in the taxable base for the Industry and Commerce Tax is due to higher revenues in the 2023 period.*

[3] *The taxable base for the tax by fees increased by the value of the payments paid to the municipalities for the concept of energy generation as established by Law 99.*

[4] *a disminución de los impuestos sobre aduana y recargos para el 2023, corresponde a la baja de importaciones de mercancía paThe decrease in customs taxes and surcharges for 2023 corresponds to the decrease in merchandise imports for the development of EPM's megaprojects.*

[5] *The decrease in other national taxes corresponds to the payment of the additional contribution of the SSPD Super Services for the 2021 term in the year 2023, in the amount of $22,147.*

Note 27.

Provisions

27.1. Provisions

The reconciliation of the provisions is as follows:

Concept	Dismantling or restoration	Litigation	Contingent consideration - Business combination	Subsidiary constructive obligations	Guarantee	Other provisions	Total
Initial balance	**226,327**	**576,262**	**164,112**	**-**	**106,053**	**78,667**	**1,151,421**
Additions	-	803,013	-	-	-	149,963	**952,976**
Capitalizable Additions	3,287	-	-	-	-	-	**3,287**
Uses	(39,265)	(121,561)	(551)	-	(102,607)	(138,457)	**(402,441)**
Reversals, unused amounts (-)	(177)	(19,061)	(1,323)	-	(9,566)	(10,045)	**(40,172)**
Reversals, capitalizable unused amounts (-)	(206)	-	-	-	-	-	**(206)**
Adjustment for changes in estimates	5,629	32,110	3,402	62,926	-	367	**104,434**
Adjustment for changes in capitalizable estimates	224,886	-	-	-	-	-	**224,886**
Exchange rate difference	-	(1,200)	(31,261)	-	-	-	**(32,461)**
Other changes Finance Expense	25,382	61,054	6,764	-	6,120	5,430	**104,750**
Final balance	**445,863**	**1,330,617**	**141,143**	**62,926**	**0**	**85,925**	**2,066,474**
Non-current	256,367	1,259,797	140,987	62,926	-	56,991	1,777,068
Current	189,496	70,820	156	-	-	28,934	289,406
Total	**445,863**	**1,330,617**	**141,143**	**62,926**	**0**	**85,925**	**2,066,474**

- Amounts stated in millions of Colombian pesos -

Al 31 de diciembre de 2023 el comportamiento significativo de las provisiones de EPM es:

- The increase in the provision for dismantling is an adjustment in the social provision of Ituango and in the forestry compensations for the environmental effects of Hidroituango (Number 27.1.1).
- The increase in the provision of litigation and lawsuits is due to the arbitration award against EPM for the penalty clauses of enforcement for non-compliance with milestones in Hidroituango. (Paragraph 27.1.2).
- The decrease in the guarantee provision is due to the payments made to XM for the arrears guarantee in Hidroituango (Numeral 27.1.4).

27.1.1. Decommissioning or environmental restoration

EPM is obliged to incur dismantling or restoration costs of its facilities and assets. There are currently three provisions for dismantling or restoration:

- **Withdrawal of transformers that contain PCBs (polychlorinated biphenyls):** EPM has committed to the dismantling of these assets from 2014 to 2026 covered by Resolution 222 of December 15, 2011 of the Ministry of Environment and Sustainable Development and the Stockholm Convention of May 22 2008. The provision is recognized for the present value of the expected costs to settle the obligation using estimated cash flows. The main assumptions considered in calculating the provision are: estimated costs, CPI, and TES fixed rate. The balance as of December 31 is $7.
- **Jepírachi:** The Jepírachi Wind Farm, located in La Guajira, generated until October 9, 2023; when the operation of the National Interconnected System (SIN) was disconnected and the dismantling process began that will last approximately one year, as contemplated in CREG resolution 136 of 2020, published in the Official Gazette on July 15, 2020. The main assumptions considered in the calculation

of the provision are: estimated costs, CPI and TES fixed rate. As of December 31, 2023, the provision for $943 was recorded.

- **Dismantling of the Hidroituango power plant:** With the entry into operation of the two power generating units of the Hidroituango power plant, the dismantling of the Tacuí – Cuní camp is planned, which was initially conceived and sized for the construction of the Ituango Hydroelectric Project. Once the construction stage is over, the operation of the project begins and the sizing for the construction stage is much greater than that required for the operation stage. For this reason, it is estimated that the dismantling will begin in 2027, which is the probable date of the completion of the construction and delivery to operation of the 8 generation units. The estimated cost for the dismantling of the camps was assessed according to the areas that are not required for the operation of the plant and according to the plan and dimensioning of the facilities. The balance of the provision as of December 31, 2023 amounted to $14,893.

- **Environmental provision in the construction of infrastructure projects:** it arises as a legal obligation derived from the granting of the environmental license to compensate for the loss of biodiversity during the construction phase, as well as compensation for the subtraction of reserve areas, affectation of prohibited species and forest use; Obligations that are formalized through the resolutions of the ANLA (National Authority for Environmental Licenses), CAR - Regional Autonomous Corporation and/or MADS - Ministry of Environment and Sustainable Development.

  The executions of the biotic environmental compensations of the project extend beyond the time in which the asset technically begins to operate, making it necessary to implement the figure of the provision with the aim that said expenditures remain as a greater value of the construction in progress. The company has committed to compensate the loss of biodiversity, subtraction and closures, 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 04/21/2014 CVS, among others. The provision is recognized

at the present value of the expected costs to pay off the obligation using estimated cash flows. The main assumptions considered in the calculation of the provision are: estimated costs, CPI _ Consumer Price Index _ prices and fixed rate of return TES (Colombian government debt securities). The adjustment made as of December 2023 was $7,722.

Environmental compensation and forced investment of 1%: Law 99 of 1993, established the obligatory nature of environmental licensing for the development of any activity that could cause serious deterioration to renewable natural resources or the environment, or introduce considerable or notorious 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 Authority for Environmental Licenses, the Regional Autonomous Corporations, or the metropolitan areas.

Article 321 of Law 1955 of 2019, indicates that all holders of an environmental license that had pending investments as of May 25, 2019 may benefit from the percentage increase in the value of the liquidation base of the forced investment of not less than 1%, according to the year of start of activities authorized in the environmental license and defined the requirements and procedures to update the pending investments and take advantage of new execution terms subject to the approval of the ANLA.

For EPM, the obligations related to the use of water taken directly from natural sources are contemplated, in La Sierra, Porce II, Porce III and Hidroituango. As of December 31, 2023, $47,272 was recorded as a provision.

For the environmental contingency of Hidroituango, established by the specific action plan for the recovery of the parts affected by the events of the plugging of the diversion tunnel of the Cauca River, due to the closure of floodgates; and, for the events, typical of the contingency, that may arise in the pending technical milestones to be reached, as well as the execution of the same. As of December 31, 2023, there is a provision balance of $38,656.

PFor the social and environmental recovery plan of Hidroituango, the evaluation of the state of the concentrations of mercury, lead, nickel, chromium, cadmium and arsenic, methylmercury in fish, water, sediments and suspended material, cyanobacteria in water and possible effects on the health of the riparian inhabitants of the middle and lower basin of the Cauca River was considered; and the Humboldt Framework Convention: Biodiversity (Standardization of monitoring in the middle and lower Cauca River basin, fulfillment of pending commitments in the compensation plan, analysis of possible reserve area).

The specific action plan for recovery must consider three framework programs::

a. Recovery of affected swamp.

b. Recovery of the affected fish fauna

c. Restoration of aquatic habitats located in the affected area.

These three programs correspond to the environmental component as a response to the identification of the effects caused, as well as discretionary actions. Also included are social programs, economic activities, infrastructure, risk management, among others.

The different actions are carried out between the municipalities of Valdivia and Nechí; however, if the effects are identified in the municipalities that are part of La Mojana, they will also be subject to the intervention.

Environmental effects of the Ituango Hydroelectric Power Plant: In 2022, two of the eight power generating units of the Hidroituango Power Plant came into operation and began obligations for the use of vegetation cover in the areas where different infrastructures were implemented for this plant. According to the environmental license, the project must make forest compensations associated with the WFP programs of the biotic environment related to the management and conservation of vegetation cover, the subprogram for the restoration of forest cover, the subprogram for the management and protection of fish and fishing resources in the lower and middle basins of the Cauca River, in a ratio of 1 to 1 in the intervened areas of tropical humid forest and from 1 to 5 in the areas of tropical dry forest. With this, attention is also given to the obligations of CORANTIOQUIA and CORPOURABA for the use of species with regional restriction. The balance of the provision as of December 31, 2023 is $167,670.

27.1.2. Litigation

This provision covers estimated probable losses related to labor, civil, administrative, and tax litigation that arise in EPM's operations. The main assumptions considered in the calculation of the provision are: CPI (Consumer Price Index) average to actual data in previous years and projected data in future years, fixed rate TES (Colombian Government debt security) in pesos for discount, estimated value to be paid, start date and estimated date of payment, for those disputes classified as probable. To date, no future events have been evidenced that may affect the calculation of the provision.

In order to reduce the uncertainty conditions that may arise with respect to the estimated date of payment and the estimated value to be paid in litigation classified as probable, the company has business rules based on statistical studies with which average durations were obtained. of the processes by action and also the application of the jurisprudence to the maximum limits that it defines for the value of extra patrimonial or immaterial claims when they exceed their amount, as described below:

Average duration of processes per action

Administrative and fiscal

Action	Average years
Abbreviated	4
Enforcement Action	4
Group Action	6
Popular Actions	4
Preliminary Conciliation	2
Constitution Of Civil Party	4
Contractual	13
Demarcation	5
Executive	5
Singular Executive	3
Exportation	4

Comprehensive Reparation Incident (Criminal)	2
Imposition Of Easement	4
Nullity Of Administrative Acts	5
Nullity And Restoration of Rights	10
Nullity And Restoration of Labor Law	11
Ordinary	7
Ordinary Membership	5
Criminal Accusation (Law 906 Of 2004)	4
Dividing Processes	4
Protection Of Consumer Rights	6
Police Complaints	3
Claim	7
Direct Repair	12
Verbal	5

Labor processes

Action	Average years
Solidarity	3.5
Pension	3.5
Extra hours	3.5
Refund	4
Salary scale leveling	3.5
Unfair dismissal offset	3.5
Settlement of social benefits	3.5
Work accident compensation	4
Refund contributions Health_Pension	4

Application of jurisprudence

Typology: the values of the claims for compensation for non-pecuniary damages will be recorded according to the following typology:

- Moral prejudice.
- Damage to health (physiological or biological damage), derived from bodily or psychophysical injury.
- Damage to relationship life.
- Damage to constitutional and conventional property.

The values of other non-patrimonial claims not recognized by jurisprudence will not be recorded, unless it can be inferred from the claim that, despite having another name, it corresponds to one of the admitted typologies. Claims for non-patrimonial compensation for damage to property will not be registered either.

Quantification: the amount of non-patrimonial claims will be recorded uniformly as follows, regardless of their type:

For direct victim	100 Current Monthly Legal Minimum Wages
For indirect victim	50 Minimum Legal Monthly Wages in Force

The following are the recognized disputes:

Third party	Claim	Amount
Hidroeléctrica Ituango S.A.	Declare that between HIDROITUANGO and EPM, there exists a Contract for the financing, construction, assembly, development, commissioning, and operation of the Pescadero Ituango Hydroelectric Project, known as BOOMT, entered into on 2011/03/30, where EPM ITUANGO assigned its contractual position in favor of EPM. In Hidroituango's opinion, EPM failed to meet milestone 7 "Closure of the diversion gates and start of the reservoir filling (...)" initially planned for 2018/07/01, milestone 8 "Commencement of commercial operation of unit 4" initially planned for 2018/11/28, and milestone 9 "Commencement of Commercial Operation of Unit 1" initially planned for 2019/08/27. As a consequence of the above, Hidroituango requested that EPM be ordered to pay the "Penalty Clauses for Failure to Meet Milestones" up to the value of the "maximum financial liability" for US$450 million, and the recognition of the remuneration agreed upon in the contract for the plant not having commenced operation on the scheduled dates.	781,829
Maikol Arenales Chaves	To declare the defendants administratively liable, as the cause of the unlawful damage for having destroyed the fishing resource of the Ciénagas de Montecristo complex, which is due to the construction of the IHP (Ituango Hydroelectric Project). Note: By order of 16 November 2021, 1223 persons were accepted as members of the group.	330,425
Oscar Elias Arboleda Lopera	It includes 173 plaintiffs who worked for EADE; and, they state that in the dissolution and liquidation of said company there was an employer substitution with EPM, which obliges it to all labor debts.	46,894
Roger Alberto Gil Barragán	To recognize, by way of compensation, for each of the members of the "ASOBAPEBEL" group, that there are one hundred and ninety-three (193) for the unlawful damage caused, the moral and material damage, and the violation of fundamental rights such as a dignified life, a minimum of life, decent housing, work, food security, and the destruction of their source of subsistence, the displacement of their territory and the unlawful psychological and physical transformation of their lives, having as an imputation the exceptional risk due to the emergency that caused the damage to the Cauca River.	22,347
Luis Fernando Anchico Indaburo	To declare EPM administratively responsible, as the cause of the unlawful damage for having destroyed the fishing resource of the Montecristo swamp complex, which is due to the construction of the IHP (Ituango Hydroelectric Project) and requests the recognition and payment of a minimum wage for each family nucleus from February 2019 until the judgment is issued, this is referred to by the defendants as consolidated loss of profits.	22,332
Various Labor	It corresponds to 214 processes with an average of $101 and an amount of less than $1,097.	21,505
Santiago Andrés Ortiz Mora	To declare EPM responsible for the damage caused, the moral and material damage and the violation of fundamental rights, caused to the members of the "SAN ROQUE" group, by the destruction of their source of subsistence, the displacement of their territory and the psychological and physical transformation of their lives due to the affectation caused by the "Hidroituango" project in April 2018. The amount for each of the 161 members of the group is 100 SMMLV, for a total of $14,132,628,300. A claim for loss of profits in the amount of $1,146,431,034 is claimed.	18,010
Rodrigo Antonio Muñoz Arenas	To declare the State's responsibility for the deficiencies or omissions incurred by the defendants, by not measuring the danger, threat and damage that would be caused by the indiscriminate felling of trees in the area of influence of the dam, to which the communities attribute the changes in the behavior of the river and the landslides in the area. To order the plaintiffs and the members of the affected group to pay the minimum subsistence not received for the duration of the emergency, $4,307,103,200.00.	14,509
Javier Maure Rojas	To declare EPM administratively responsible, as the cause of the unlawful damage for having destroyed the fishing resource of the Montecristo swamp complex, which is due to the construction of the IHP (Ituango Hydroelectric Project); that a minimum wage be recognized and paid for each family unit from February 2019 until the judgment is handed down and the recognition of a future loss of earnings that goes from the time of the judgment to the probable period of life of each of the plaintiffs.	14,042
Various Administrative	It corresponds to 22 processes with an average of $595 and an amount of less than $2,353.	12,865

Gustavo Jiménez Pérez	To declare EPM E.S.P. liable for the unlawful damage caused, the moral and material damage and the violation of fundamental rights caused to the 75 members of the "ASOMIBA" group; for the destruction of their source of subsistence, the displacement of their territory and reparation of the damage; It is requested to pay to the members of the "ASOPEISLA" group, the damages of an immaterial and material nature caused since the beginning of the emergency originated in the "Hidroituango" project, of compensation for each of the members of the "ASOMIBA" group, is set at One Hundred (100 SMLV).	8,986
Esilda Rosa Romero Aguas	They request that EPM be declared administratively liable as a result of the damage caused to the plaintiffs and that the sum of 80 SMLMV be recognized for each of the plaintiffs in the form of moral damages: 39 in total.	8,301
Diógenes De Jesús Cossio	For environmental damage, the sum of 50 SMLMV, for each of the 41 plaintiffs. It is classified as damage to constitutional and conventional property, in the absence of a category such as the one indicated by the plaintiff. For damage to the family or damage to the life of the relationship 50 SMLMV, for each of the plaintiffs. For moral damages, the sum of 50 SMLMV, for each of the plaintiffs. For consolidated and future loss of profits, the sum of ARS 289,767,141,000, for Mr. Fabio Enrique Gomez Atehortua.	7,170
John Walter Jaramillo	That the plaintiffs be reinstated in the same position or trade or another of the same or higher category that they had been performing, that as a consequence, by way of compensation, all the salaries and legal social benefits not received must be paid, in addition to all the contributions caused in favor of the Comprehensive Social Security System.	5,537
Municipality of Copacabana	Declare that EPM has partially breached the 8405949 contract and that it is responsible for the economic damages suffered by the Municipality of Copacabana, as the public lighting fee for the industrial and commercial sectors was not collected during the periods of 2007, 2008, 2009, 2010 and part of 2011; Which have been liquidated in the sum of $1,034,385,066 and that must be paid when the order that resolves the present lawsuit becomes enforceable.	3,237
Humberto Hernando Gómez Franco	To declare EPM administratively and financially liable for the injuries suffered by Mr. Humberto Hernando Gómez Franco, when he was electrocuted by high-voltage cables owned by the defendant entity, on 10/23/2013, at the La Playa farm owned by Mr. Antonio Lopera, located in the La Virgen sector, of the Vereda Hoyorrico, jurisdiction of the Municipality of Santa Rosa de Osos.	2,353
Francisco Javier Muñoz Usman	The plaintiffs claim to have worked at Empresa Antioqueña de Energía S.A. E.S.P., which was liquidated. That the conciliation agreement signed be declared null and void due to defect in the consent and consequently order the reinstatement of the employment contract, the reinstatement, the payment of all the salaries and benefits not received, in the same way that the social security contributions be cancelled from the moment of dismissal and until the plaintiff is effectively reinstated.	2,187
Moraine Olave De Larios	Relatives of a former Integral worker who died in Ituango, sue for full compensation for damages, for moral damages caused. Solidarity.	2,038
Omar Augusto Lugo Hoyos	That the conciliation agreement signed be declared null and void due to defect in the consent and consequently order the reinstatement of the employment contract, the reinstatement, the payment of all the salaries and benefits not received, in the same way that the social security contributions be cancelled from the moment of dismissal and until the plaintiff is effectively reinstated.	1,373
Jaime De Jesus Marin Hernandez	Employer's fault.	1,141
Corantioquia - Corporación Autónoma Regional Del Centro De Antioquia	That as a result of the declaration of nullity of Resolution No. 130 TH1106 - 8318, of June 7, 2011, CORANTIOQUIA repays the fee for the use of water collected from the Riogrande and that was collected with invoice No. TH1195 of April 11, 2011, corresponding to the period 2010, as established by Decree 155 of 2004, and pay EPM back what it overpaid.	1,108
Luis Bernardo Mora Meneses	EAS Re-Entry	1,097
Área Metropolitana Del Valle De Aburrá	To declare the nullity of the Metropolitan Resolutions: No. S.A. 001085 of 2012/07/05 "For the collection of remuneration rate - Connected Sector"; and, the No S.A. 000189 of 2014/02/17 "That resolves an Appeal for Reconsideration" both issued by the Environmental Deputy Director of the Metropolitan Area of the Aburrá Valley; and, to declare that EPM E.S.P. are not obliged to pay the AREA a sum whose refund must be made in an indexed manner from the time of making the payment and until the date on which effective compliance with the judgment with which the controversy is put to an end is verified.	1,073
Various Fiscal processes	It corresponds to 5 processes with an average of $52 and an amount less than $1,073.	258
Total recognized disputes		**1,330,617**

- Amounts stated in millions of Colombian pesos -

27.1.3. Contingent consideration - Business combination

Corresponds to contingent consideration related to the acquisition of the following group of assets that constitute a business: subsidiary Espíritu Santo Energy S. de R.L. and subsidiary Empresas Varias de Medellín S.A E.S.P. – EMVARIAS, as of December 31, 2023, for the former there was a balance of $126,243; and, for the second of $14,900.

The main assumptions considered in the calculation of the contingent consideration related to the acquisition of Espíritu Santo are: 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) according to the risk of the liability. To date, no future events have been evidenced that may affect the calculation of the provision.

The main hypotheses used regarding the future events of the contingent consideration related to the EMVARIAS acquisition are: ongoing litigation against EMVARIAS at the date of the transaction, definition of the year of materialization of each one of the litigation, definition of the value linked to each of the disputes, estimate of future contingent disbursements linked to the estimated disputes for each year and discount rate (TES fixed rate) to discount future contingent disbursement flows. To date, no future events have been evidenced that may affect the calculation of the provision.

27.1.4. Guarantee

The provision for guarantees is related to the reliability charge. In accordance with CREG Resolution 061 of 2017, the guarantee of the reliability charge for the entry of new generation projects is executed

when the start of commercial operation of the plant is delayed by more than one year; and, in the case of Hidroituango, the guarantee provision for reliability charge began in May 2019 and ended in November 2023 after the declaration in commercial operation of unit 4 of Phase I where the total generation capacity was reached, 1200 MW, which corresponds to 100% of it.

27.1.5. Other provisions

The company maintains other provisions for:

- **Affected Ituango contingency:** For the attention of the affected people of Puerto Valdivia who were evacuated and housed, and who received compensation for consequential damages, lost earnings and moral damages; the recovery of families affected by the total or partial loss of their homes and economic activities caused by the Ituango Hydroelectric Project. As of December 31, 2023, this provision was adjusted by $6,730 and the ending balance is $37,584.
- **Environmental sanctioning procedure:** Corresponds to sanctions imposed 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 2023, there is a provision of $1,408.
- **Sanctions:** These are the fines imposed by the competent authority for not applying the law or regulation indicated by the respective body. As of December 31, 2023, there are outstanding fines of $82.

Other provisions aimed at the well-being and quality of life of EPM employees and the family group:

- **Employer's policy:** Granted to EPM servers as an extralegal benefit. An aggregate deductible was incurred from July 1, 2023 through June 30, 2024 for $4,750. The main assumptions considered in the calculation for each type of provision are: TES discount rate, fixed

rate, estimated amount payable and estimated payment date. To date, there has been no evidence of future events that could affect the calculation of the provision. It closed the year 2023 with a balance of $4,898.

- **Multiplier Points:** The points obtained in the year must be recognized at the request of the interested party or by decision of the Human Talent Development Department each time there is an accounting closing of the term and must be paid through the payroll. The value of each point is equivalent to 1% of the SMMLV and the process of accumulating points from one year to the next should not take place.
- **High cost and catastrophic diseases:** The basis for calculating said provision is that corresponding to the analysis of the entire population of affiliates and beneficiaries of the EPM Adapted Health Entity (EAS) who suffer from any of the authorized pathologies. As of December 31, 2023, the balance amounted to $9,618.
- **Technical reserve:** The basis for calculating the reserve is that corresponding to all service authorizations issued and that have not been collected on the cut-off date on which the reserve is to be calculated, except those corresponding to authorizations with more than twelve months of issuance. or those that after at least four (4) months after being issued, there is evidence that they have not been used. As of December 31, 2023, the balance amounted to $18,047.
- **Capitalizable easement:** It corresponds to the recognition of a capitalizable litigation, for being associated with an asset, whose dismantling must be a higher value of the construction in progress. As of December 31, 2023, EPM has a balance of $58 due to the easement imposition process for the 110 kv Second Circuit San Lorenzo - Calizas Power Transmission Line project, which is located in the east of the department of Antioquia, in the jurisdiction of the municipalities of Cocorná, San Luis, San Francisco and Sonsón.

27.1.6. Estimated payments

The estimate of the dates on which the company considers that it will have to make payments related to the provisions included in EPM's statement of financial position at the cut-off date is as follows:

Estimated Payments	Dismantling Or Restoration	Litigation	Contingent Consideration	Subsidiary Implied Obligations	Other Provisions	Total
2024	190,333	989,757	-	-	32,891	1,212,981
2025	70,213	436,056	152	-	21,289	527,710
2026	26,921	65,242	-	-	13,881	106,044
2027 and others	158,396	81,687	145,143	62,926	-	448,152
Total	**445,863**	**1,572,742**	**145,295**	**62,926**	**68,061**	**2,294,887**

27.2. Liabilities and contingent assets

The composition of contingent liabilities and assets is as follows:

Description	Contingent liabilities	Contingent assets	Net
Litigation	1,852,526	59,082	(1,793,444)
Total	**1,852,526**	**59,082**	**(1,793,444)**

- Amounts stated in millions of Colombian pesos -

The company has litigation or procedures that are currently pending before judicial, administrative and arbitration bodies. Taking into consideration the reports of the legal advisors, it is /reasonable to appreciate that said litigation will not significantly affect the financial situation or solvency, even in the event of an unfavorable conclusion of any of them.

The main litigation pending resolution and judicial and extrajudicial disputes in which the company is a party as of the cut-off date are indicated below:

Contingent liabilities

Third party	Claim	Amount
Miscellaneous Administrative	It corresponds to 640 processes under $2,888 with an average of $838.	536,129
Isagen S.A. E.S.P.	EPM is ordered to compensate ISAGEN for the damages it suffered as a result of the fire and the consequent unavailability of the Guatapé Power Plant.	390,418
Electricaribe - Electrificadora Del Caribe S.A. E.S.P.	To declare that EPM breached the Acquisition Agreement by refraining from making the adjustment of the Compensatory Payment for Collection foreseen, in favor of ELECTRIFICADORA DEL CARIBE S.A. in liquidation. As a consequence, ELECTRIFICADORA DEL CARIBE - IN LIQUIDATION - is entitled to receive the difference between the Compensatory Payment for Collection at the Closing Date and the Compensatory Payment for Final Collection, which amounts to (COP$43,548,032,051). Declare that EPM, due to its non-compliance, is obliged to pay default interest, between 2020/11/09 or the date determined by the Court and the date of effective payment of the capital sentences.	156,247
Villa Esperanza Neighborhood	Non-pecuniary damage in the proportion of 100 SMLMV for each of the members of the group, that is, for one thousand two hundred and ninety-six (1296) people, which in total is equivalent to One hundred thirteen thousand seven hundred sixty-three million one hundred thirty-nine thousand two hundred pesos ($113,763,139,200). Material damage as consequential damage for the destruction of each of the homes, calculated in an individual value per dwelling of five million pesos ($5,000,000) which in total indicates 377, for a total of one thousand eight hundred and eighty-five million pesos ($1,885,000,000).	135,504
Consorcio Ccc Ituango	To declare that the Claimants constructed the GAD in accordance with the detailed plans and drawings; the Technical Specifications of construction; and, the instructions and requirements of EPM and the Auditor's Office; that the contingency that occurred in the Project from 2018/04/28 is not attributable to a breach of contract by the Claimants; nor for the operation of the works delivered. Requests that EPM be ordered to pay the Consortium $70,000,000,000 as an incentive for the execution of the accelerated works program; and, to reimburse the Claimants for any sums they may be obliged to pay as a result of decisions taken in the actions for compensation brought by third parties allegedly affected by the Contingency. A total of 22 claims.	85,354
Municipality of Bello	That the nullity of Resolutions 2022- RESCRED-77 of November 24, 2022 and 2022 - RESCRED-1 of August 31, 2022 and 2022- RESCRED-100 of December 30, 2022, issued in the coercive collection process promoted by EPM for the collection of the judgment issued by the Council of State, in the process filed 05001233100020110134301 /That the by way of restoration of the right be declared that the order of payment that consists of the return of the sums paid by the Municipality of Bello to EPM on the occasion of the payment agreement conditional on the outcome of the Extraordinary Appeal for review filed against the judgment filed 05001233100020110134301.	79,231
Aures Bajo S.A.S. E.S.P	First main claim. Declare that EMPRESAS PUBLICAS DE MEDELLIN E.S.P. seriously and repeatedly breached the energy supply contract No. CT - 2015 - 000363, signed with AURES BAJO S.A.S. E.S.P., by failing to pay the full price of the energy supply for the months of September, October, November and December 2022 and January in a timely manner, February and March 2023. That AURES BAJO S.A.S. E.S.P. has the right to have the unilateral termination of the supply contract declared with effect from September 30, 2022. That the defendants be ordered jointly and severally to pay all the damages caused constituting consequential damages and loss of profits, in a minimum value of twenty thousand eight hundred and ninety million eight hundred thirty-three thousand three hundred and thirty-three pesos M.L. ($20,890,833,333	70,201
Aura De Jesús Salazar Mazo	Collective right of approximately 113 people who each claim $1,133,400 for Consolidated Loss of Profit and $78,753,854 for Future Loss of Profit, for destroying, interrupting and cutting the ancestral mule paths that lead from the Alto Chiri village of the municipality of Briceño to the Valle de Toledo township.	40,764
Guzmán Bayona E Hijos S En C	To declare the Mining and Energy Planning Unit (UPME) and Empresas Públicas de Medellín ESP to be held jointly and severally liable for the de facto conduct they incurred in awarding and installing electrical wiring towers in a mining concession area without prior coordination and without any administrative act or judicial resolution for the affectation of the acquired rights.	31,852
Obras Civiles E Inmobiliarias S.A - Oceisa	That it be declared that EPM's failure to comply with the 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 that could not be executed by third parties due to events beyond the control of the parties that prevented the normal execution of the contract.	21,300
Miscellaneous Labor	It corresponds to 200 processes under $1,661 with an average of $97.	19,399
Dayron Alberto Mejía Zapata	Material Damages: Loss of Profits: calculated at $569,000,923, a sum that must be updated in accordance with the evidence; Moral damages: estimated at 100 s.m.m.l.v.; Damage to health: estimated at 100 SMLMV; And, Damages to Constitutional Property: which estimate in the amount of 100 SMLMV, all of the above for each of the plaintiffs, or failing that, the maximum granted by jurisprudence for similar cases, for a total to date of 4,500 SMLMV.	14,989
Unión Temporal Nueva Esperanza	To declare that EPM failed to comply with and unbalanced the contract CT-2013-000641 whose object was the execution of the construction and electromechanical assembly works of the 230KV transmission lines Guavio - Nueva Esperanza and associated reconfigurations paraíso - Nueva Esperanza - circo y paraíso- Nueva esperanza - San Mateo.	14,445
Iván De Jesús Zapata Zapata	To declare the defendant entities administratively liable for all material and moral damages and damage to the life of the relationship, caused as a result of the execution of an administrative operation that ended with the eviction of the plaintiffs and their families from Finca La Inmaculada, carried out on 2019/10/18. Order the defendants to pay the value of the land, buildings and furnishings as well as the agroforestry valuation of the property; the damages and affliction derived from the suffering caused by the eviction, the violation of human dignity, and seeing how their homes and crops were destroyed. He claims 100 SML for each of the plaintiffs.	11,532
Abraham De Jesús Barrientos	To declare HIDROELECTRICA ITUANGO and EPM liable for the damages caused; and, in solidarity with IDEA, the MAYOR'S OFFICE OF MEDELLÍN and the DEPARTMENT OF ANTIOQUIA. Loss of earnings: for the loss of income in the displacement due to the emergency caused, damage due to the impossibility of exercising the ancestral economic activity of barequeo, from which the plaintiffs are supported, calculated at 2 SML, for 27 months equivalent to $50,920,072 per person; for emotional affectations, for each, 100 Current Legal Minimum Wage, with an estimate of $87,780,300 for a total of $10,094,734,500.	11,198
Martha Cecilia Arango Usme	That it be declared that EPM occupied the property or lot of land located in the urban area of Medellín called ASOMADERA owned by the plaintiff without having exhausted any legal process or mechanism against my client; That is, by means of a de facto way, to install electric power towers and electrical conduction lines in this abusive way, leading to irreversible damage and affectations that must be repaired.	10,760
Inmel Ingeniería S.A.S.	To order EPM to compensate the BGA Line Consortium for the damages suffered, in proportion to its participation in the contractor consortium (80%), after the submission of the bid, conclusion, execution and completion of the CT 2016 001695 contract, where unforeseen situations arose not attributable to the contractor that varied the conditions of execution and made compliance more onerous for the contractor; and that the contracting party failed to comply in that it refused to restore the financial or economic equilibrium of the contract.	9,616

Third party	Claim	Amount
Darío De Jesús Pérez Piedrahita	That the defendant be held liable for the violation of the fundamental and collective rights to life, health, family privacy, the enjoyment of a healthy environment, the existence of ecological balance and the rational management and use of natural resources, which led to the causing of the unlawful damage caused to the plaintiffs by the imposition of easements in compliance with an energy generation plan which has caused significant damage to the actors, both material and moral.	9,410
Radian Colombia S.A.S.	To declare that between EPM and Radian Colombia SAS there was work record CT-2015-002500-A1 whose purpose was: "Construction, replacement and maintenance of networks, connections and accessory works of the infrastructure of EPM's aqueduct networks". That EPM failed to comply with clause 1.4 Scope and location of the works, and its obligation to pay the additional administrative and locative resources required for the attention of the northern zone that was assigned to it after the aforementioned work act.	9,355
Velpa Soluciones Integrales S.A.	Declare null and void EPM's decision to reject the proposal submitted by the company Velpa Soluciones Integrales S.A., in the context of the procurement process PC-2009-0974 opened by EPM, on the grounds that it is allegedly disqualified from contracting with EPM and order it to pay the amount of the damages suffered as a result of the rejection of the claim in procurement process No. 2009 - 0974 and the sums that it will no longer receive as a result of the impossibility of contracting with the State for a period of 5 years, as a result of the decision adopted by EPM.	7,935
Velpa Soluciones Integrales S.A.	EPM is ordered to pay the amount of damages suffered by VELPA Soluciones as a result of the rejection of its proposal in procurement process No. 2009-0927 and the award 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, given the impossibility of contracting with the State for a period of 5 years, as a result of the decision adopted by EPM.	6,946
Velpa Soluciones Integrales S.A.	That EPM be ordered to pay the amount of the damages suffered from Loss of Profits and Consequential Damages, as the contract CT 2009 0220 was declared suspended, and the eventual decision to terminate the contract based on grounds such as a non-existent cause and for the sums that Velpa Soluciones Integrales S.A. will no longer receive; given the impossibility of contracting with the State for a period of 5 years, and this, based on the contracts entered into exclusively with the State during the year 2009 and its projection for the next period of 5 years.	6,337
International Bussines Group S.A.S.	The PLAINTIFF requests a declaration of liability of the parties for the damages suffered by the events narrated and an order to pay the material damages, in the sense of: consequential damages, consolidated loss of profits and future loss of profits.	6,181
I.A. S.A. (Ingenieros Asociados)	To declare the breach of contract CW 10084 of 2017 and to order compensation for damages in the form of consequential damages for the concepts of payroll between May 9 and 15, 2018, transportation, tools and equipment; compensation for loss of profits due to the availability of equipment and tools between 10 May 2018 and 31 May 2021; and, compensation for damages in the form of loss of profits for financial returns not received between May 10, 2018 and May 31, 2021.	6,028
Axede S.A.	Loss of profits due to having affected their right to free competition, given the actions and omissions carried out by EMPRESAS PÚBLICAS DE MEDELLÍN EPM and the company MVM INGENIERIA DE SOFTWARE.	5,841
Electricaribe - Electrificadora Del Caribe S.A. E.S.P.	To declare that the term of the indemnity obligation in charge of Electricaribe - Electrificadora Del Caribe S.A. E.S.P. in liquidation, as Seller provided for in the Share Acquisition Agreement, has already expired and that no Loss has materialized for EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P., CARIBEMAR DE LA COSTA S.A.S. E.S.P., nor for any Indemnifiable Party of the Buyer that gives rise to the release of the Guarantee Resources in favor of EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. The period during which the Guarantee Resources were to remain deposited in the corresponding Sub-Account of the Trust has already expired.	5,265
Yovan Antonio Quintero Gómez	Declares EPM ADMINISTRATIVELY AND CIVILLY LIABLE. and/or THE COMPANIES; directly for the material and moral damages in their different manifestations and to compensate my principals as DRAGUEROS MINERS in their MAIN ACTIVITY in which they worked from 1.995 to date, adding up to 27 consecutive years. INDEMNIFY EVERYTHING THAT BY RIGHT BELONGS TO THEM AND IS COVERED BY LAW, and the provisions of the Manuals of Unit Values for the Payment of Compensation for Economic and Productive Activities; I must deliver to them and transfer to my principals the housing compensation, according to the MVU in the place where they decide.	5,127
Zandor Capital S.A. Colombia	It requests the nullity of administrative acts No. 0156SE-20170130033319 of March 14, 2017, 015ER-20170130045192 of April 8, 2017 and SSPD-20178300036125 of June 20, 2017 and as a restoration of the right an initial claim of five thousand (5,000) million pesos.	5,094
Inversiones Gallego Tobón Sas	Material damage resulting from: construction of two synthetic courts, dismantling of the courts, assembly of the gymnasium; Lease fee for 48 months; Labor Expenses, Advertising and Marketing Expenses; Payment of public services, stationery, supplies, cleaning supplies; purchase of gym equipment; Future loss of earnings: $1,416,371,947; Moral damages, for the 5 natural persons convening: 500 SMLMV/Physiological damage, for 5 natural persons: 500 SMLMV/Loss of opportunity, for the 5 natural persons: 500 SMLMV.	5,031
Licuas S.A.	That EPM be ordered to recognize and pay the contractor the monies withheld, The nullity of the official letter 201901301521030257 of 2019 contractual act by which the unilateral termination of the contract was declared CW20106 for non-compliance. To order EPM to restore the project and to recognize and pay the cost overruns caused to LICUAS, due to the interruption of the project for reasons not attributable to the contractor.	5,028
Smartgrowth S.A.S	To declare that EPM is responsible for the unlawful damage and material damages caused to the plaintiffs by actions and omissions in the constitution of the unformalized electrical easement over the rural property "La Cascajera", located in Madrid, Cundinamarca; and, the damage caused to the mining activity carried out. Condemn EPM to remove the electrical power wiring that crosses the property; and, to compensate for the damage of $1,477,586,746, which corresponds to the compensation for the occupied area and which is susceptible to the constitution of an unformalized easement since 2016.	4,821
Albeiro De Jesús Valencia Pérez	The plaintiff requests the payment of social benefits and the moratorium penalty, from July 9, 2010, until the total amount owed by all the plaintiffs is paid, in order to obtain payment of the judgment issued by the Eighth (08) Labor Court of Decongestion of the Medellín Circuit in the labor lawsuit with file 05001-31-05-005-2011-0135-00, in which EPM was not a party to the process.	4,818
Depósito De Buses Coonatra Copa Sas	PROFIT. Estimating from the entry into operation of the logistics center (January 1, 2019), until September 30, 2019, in an estimated $280,740,048 per month. CONSEQUENTIAL DAMAGE, for payment of salaries and social benefits of the staff who have provided permanent custody services of the property and its maintenance, from December 2018, until September 30, 2020, since, as the holder of the real right of ownership, in any case, he is responsible for the conservation and custody of the property.	4,804
Hilos Hebratex S.A.S	Claims the benefit for: The five months of 2012, $474,987,000; for the twelve months of 2013, $1,271,857,300; for the six months of 2014, $1,170,634,000. For the paralysis during the 25 days it took to repair the engines and fix and deliver the machines, $82,125,000; for the repair of the machines, $2,400,000; for payroll during the 25 days of the company's paralysis, $4,172,646; for the production materials that were damaged, $2,312,000; and, for rent payment during the twenty-five days of paralysis of the company, $2,348,000.	4,226

Third party	Claim	Amount
Optima S.A.	That CORANTIOQUIA AND EPM are jointly and severally and administratively liable for all damages, patrimonial and extrapatrimonial, caused to OPTIMA S.A. CONSTRUCCIÓN Y VIVIENDA Y PROMOTROA ESCODIA S.A., for the breach of the duty of care, prevention, protection, maintenance, recovery and other actions, which guaranteed the balance and sustainable development of the environment in the Las Brujas basin, Loma de las Brujas and Cuenca del Ayura in the Municipality of Envigado, as well as the lack of care, protection and surveillance of the assets in their charge.	4,190
Miguel De Jesús Gómez Ramírez	To declare EPM responsible for including the plaintiffs as persons affected by the Ituango Hydroelectric Project, as miners and to cancel the compensation to which they are entitled for loss of economic activity, granting them Type 3 compensation for the population and to compensate the plaintiffs as miners for 28 years, and therefore, to pay them for their improvements, crops, possession, construction and maintenance of roads, legal premiums, relocation, consequential damages, loss of profits and moral damages.	4,170
Horacio De Jesús Gómez Ramírez	To declare EPM administratively, civilly and financially liable for not including HORACIO DE JESÚS GÓMEZ RAMÍREZ, IMELDA RODRÍGUEZ HENAO, MIGUEL DE JESÚS GÓMEZ RAMÍREZ, MARÍA CAROLINA SÁNCHEZ DE GÓMEZ as affected by the Hidroituango project, as Chorreros miners since 1994; to compensate them for the loss of economic activity for 28 years; pay them improvements for possession, cultivation, construction and maintenance of a road, legal premiums, relocation, consequential damages, loss of profits, and moral damages caused; and, to pay them $2,675,664,000.	3,802
Carlos Augusto Jiménez Vargas	Declare that the defendants are jointly and severally liable for all damages suffered by the plaintiffs due to the sewerage works of CENTRO PARRILLA.	3,799
Gustavo Vélez Correa	That it be declared that EPM is administratively responsible for the economic damages caused to the plaintiff by the fact that the plaintiff is the holder of a mining concession contract over the area that EPM required for the imposition of easements and expropriation, related to the Valle de San Nicolás project, in the jurisdiction of the municipality of El Retiro.	3,689
Humberto De Jesús Jiménez Zapata	That the process be carried out as a class action in accordance with Law 472 of 2008, against Hidroeléctrica Ituango S.A. ESP and EPM ITUANGO S.A. ESP, so that the living conditions of the plaintiffs, which were stable, are respected, and the values that are relative to each of the families and persons registered are given, declaring that EPM Hidroituango project did not duly pay the values and compensation to each of the families and individuals who were registered, in accordance with the manual of unit values.	3,647
Inciviles S.A.	Declare null and void EPM's Resolutions 0041 of January 21, 2005 and 00283 of April 21, 2005, which declared the risk of breach of the contract No 020113590 entered into between EPM and INCIVILES.	3,645
Horacio De Jesús Gómez Ramírez	To declare EPM responsible for including Mr. Horacio and Mr. Miguel de Jesús Gómez Ramírez; María Carolina Sánchez de Gómez and Imelda Rodríguez Henao, as affected by the Hidroituango Project; as MINEROS CHORREROS since 1994 and, therefore, to pay the compensation to which they are entitled, for the payment of compensation for loss of economic activity and to INDEMNIFY the children for 27 years; and to pay for their improvements, cultivation, possession, construction, and maintenance of the road; legal premiums, refusal, consequential damages, loss of profits and moral damages since 2018/05/26.	3,414
Oscar Jaime Restrepo Molina	For the frustrated profits, due to the decrease in the contracts that he may have had with EPM and his inability to contract with it, as a result of the presentation of the complaint that was made with the company the suspension of the contracts that were in execution.	3,307
Ingeniería Total Servicios Públicos S.A. E.S.P.	That it be declared that EPM breached Contract CT-2010-0499, the purpose of which was the "Construction and replacement of aqueduct and sewer networks in the Moravia neighborhood of the municipality of Medellín and paving of the roads affected by these works... ". That, as a result of such breach, the economic equilibrium of the Contract was broken and is responsible for the restoration of that equilibrium.	3,300
Luz Estela Arrieta Morales	To declare the entities summoned, jointly and severally and administratively responsible for all the patrimonial and extrapatrimonial damages caused to the plaintiffs, on the occasion of the overflow of the Cauca River that originated in the Ituango Hydroelectric Project; and to pay each of the plaintiffs 100 minimum wages for moral damages. Due to the impact on the constitutional rights of the plaintiffs, such as decent housing, work, health, among others; and, to the rights enshrined in international conventions and treaties on human rights, the payment of one (1) minimum wage for each month that the red alert remained.	3,289
José Isaac Guerra Díaz	It is hereby declared that the MUNICIPALITY OF MEDELLÍN, the Government of Antioquia, EMPRESAS PUBLICAS DE MEDELLÍN, the Municipality of Ituango and the Municipality of Taraza, are administratively responsible for the unlawful damages caused to the plaintiffs, on the occasion of the immediate evacuation of their properties, also ceasing their commercial activities. For each of the claimants for non-material damages, the total sum of 100 SMLMV.	3,261
Darío Sepúlveda Hernández	The convener requests that the damages generated with the construction of the PH PORCE III be covered, due to the abandonment that he had to make of his ranch and his activity as a barequero at the height of the LAS BRISAS and REMOLINO landscapes, due to the non-compliance with the agreements reached with EPM.	3,260
Consorcio Redes Cuencas	To declare that EPM was unfairly or illicitly enriched by the execution of contract CT-2014-000377-A1, which was not perfected, for which reason it must compensate for the alleged impoverishment suffered by the CORSORCIO REDES CUENCAS.	3,172
Rafael Segundo Herrera Ruiz	It is declared that EPM and others are jointly and severally and administratively liable for all the patrimonial and extrapatrimonial damages caused to the plaintiffs, due to the overflow of the Cauca River that originated in the Ituango Hydroelectric Project.	3,126
Digna Tulia Acosta Ramos	To declare EPM and other official entities jointly and severally and administratively liable for all patrimonial and extrapatrimonial damages caused to the actors, as a result of the emergency generated by the overflow of the Cauca River and until 2019/07/26, the date on which Elevation 435 was terminated and the National Disaster Risk Management System modified the state of red alert to Orange, This was the case with the Ituango Hydroelectric Project; order them to pay $87,780,300 to each of the plaintiffs.	3,086
María Isabel Lora López	That EPM be declared administratively liable for all the pecuniary and non-pecuniary damages suffered by the plaintiffs as a result of the death of the minor named MONICA ANDREA LORA LOPEZ and the injuries suffered and suffered by MARIA ISABEL LORA LOPEZ; for the events that occurred on 02/02/2000 in the Causes de Oriente neighborhood of the municipality of Medellín.	3,084
Eurocerámica S.A.	It is intended that EPM recognize and pay the sum of THREE THOUSAND ONE HUNDRED THREE MILLION FIVE HUNDRED SEVENTY-EIGHT THOUSAND NINE HUNDRED AND THREE PESOS M/L ($3,103,578,903), allegedly incorrectly invoiced by EPM.	3,078
Sadis Marcela Estrada	To declare the plaintiffs jointly and severally and administratively liable for all the patrimonial and extrapatrimonial damages caused to the plaintiffs on the occasion of the overflow of the Cauca River that originated in the Ituango Hydroelectric Project. To order the defendant entities to pay 100 SMLMV to each of the 17 plaintiffs for MORAL DAMAGES; to the payment of the Minimum Wage for each of the months that these people were away from their homes due to the declaration of red and orange alerts for the Municipality of Tarazá.	3,056
Francy Elena Avendaño Gómez	To declare EPM and other official entities jointly and severally and administratively liable for all patrimonial and extrapatrimonial damages caused to the actors, as a result of the emergency generated by the overflow of the Cauca River and until 2019/07/26, the date on which Elevation 435 was terminated and the National Disaster Risk Management System modified the state of red alert to Orange, This was the case with the Ituango Hydroelectric Project; order them to pay $87,780,300 to each of the plaintiffs.	3,055

Third party	Claim	Amount
Empresa Mercantil Tecnología Instrumentación Y Gas, T.I. Gas S.A.S.	To declare that EPM is administratively liable for the MATERIAL damages, since it has carried out abusive conduct of the dominant position and limitation of freedom of competition, against the commercial company TECNOLOGIA INSTRUMENTACIÓN Y GAS, T.I. GAS S.A.S., for the commercialization in the Aburra Valley and a large part of the Department of Antioquia of G-1.6 diaphragm gas meters for residential use, generating with such conduct, an unlawful damage to the Company in question.	3,019
German Alcides Blanco Álvarez	He requests the recognition of 100 SMLMV on the occasion of the diagnosed and firm incapacity for work, of 17.79%, causing a decrease in his work and physical activity, causing a detriment to the patrimony that will enter Mr. Germán Blanco Álvarez due to the accident of 29/04/2011, where damages were caused to the plaintiffs.	3,008
Dennis Esther Sehuanes Angulo	It is declared that the MUNICIPALITY OF MEDELLÍN, the Government of Antioquia, EMPRESAS PUBLICAS DE MEDELLÍN, the Municipality of Ituango and the municipality of Taraza, are administratively responsible for the unlawful damages caused to the plaintiffs, on the occasion of the immediate evacuation of their properties, also ceasing their commercial activities due to the overflow of the Cauca River, which has brought a great alteration to the constitutional and conventional rights of the plaintiffs.	3,004
Edwin David Yepes García	EPM and others are declared jointly and severally and administratively liable for all patrimonial and non-patrimonial damages caused to the plaintiffs on the occasion of the overflow of the Cauca River that originated in the Ituango Hydroelectric Project.	2,970
Yuneidy Mazo Gaviria	Declare EPM and others responsible for the damages caused by the overflow of the Cauca River that originated in the Hidroituango Project. Moral damages 100 SMLMV for each claimant. $12,844,891 for the impact on constitutional assets, on the rights enshrined in international conventions and treaties on human rights; and, to the other rights that the Judge finds proven. IN THE ALTERNATIVE, the judge is requested that, if he does not decree the compensation indicated, alternatives such as a study kit and tools for recreation and sports be granted for a minimum of $5,000,000.	2,970
Alberto Arroyo Montiel	To declare Hidroituango, EPM, and others administratively liable for the damages caused to the defendants, for what they did not receive when they had to travel due to the emergency caused, due to the exceptional risk due to the impossibility of carrying out the economic activity from which the plaintiffs' livelihood was derived, calculated for 27 months, it is settled with 2 SMLV for 12 months. Due to the emotional effects of the victims, 100 SMLV is requested for each one for 2020. The estimate is $87,780,300 per person, for a total of $2,896,749,900. There are 33 plaintiffs.	2,960
Wilfran Enrique González Castro	That the entities be declared jointly and severally and administratively liable for all the patrimonial and extrapatrimonial damages caused to the plaintiffs, on the occasion of the overflow of the Cauca River that originated in the Ituango Hydroelectric Project.	2,954
José Eduardo Suárez	Declare the summoned entities responsible for the patrimonial and extrapatrimonial causes caused to the actors, by the overflow of the Cauca River that originated in the Hidroituango Project. The defendants are ordered to pay SML 100 to each plaintiff for moral damages. Make the payment of 1 SML for each month that the red alert remained for the Municipality of Cáceres, between 2018/05/12 and 2019/07/26. If it is presented that the red alert has been extended, they request recognition of the minimum wages that the plaintiffs stop earning, from the date of the new facts, until the end of the alerts.	2,946
Sirle Johana Villareal Henríquez	To declare the defendants liable for the pecuniary and extrapatrimonial damages caused to the plaintiffs, as follows: for moral damages, $87,780,300 per plaintiff. CONSOLIDATED LOSS OF PROFITS: 12,844,891,299 each. FUTURE LOSS OF EARNINGS: If the red alert is extended, recognize the minimum wages that the plaintiffs stop earning until the alerts end. DAMAGE TO CONSTITUTIONAL AND CONVENTIONAL PROPERTY: 100 SMLV each. ALTERNATIVELY, a study kit and tools for recreation and sport for a minimum of $5,000,000 for each of the plaintiffs.	2,917
Ruby Susana Arrieta Baldovino	That the entities be declared jointly and severally and administratively liable for all the patrimonial and extrapatrimonial damages caused to the plaintiffs, due to the overflow of the Cauca River that originated in the Ituango Hydroelectric Project.	2,899
Katerine Miranda Miranda	To declare the CONSORCIO HIDROELECTRICA HIDROITUANGO S.A. E.S.P, EPM, the MAYOR'S OFFICE OF MEDELLÍN and others, jointly and severally and administratively liable for all patrimonial and extrapatrimonial damages caused to the plaintiffs, as a result of the emergency generated by the overflow of the Cauca River and until July 26, 2019, an event that originated in the Ituango Hydroelectric Project. Moral damages: 100 SMLMV; loss of earnings $12,844,891; and, Damage to constitutional and conventional property: 100 SMLMV for each of the plaintiffs.	2,894
Adonai Vanegas Jiménez	To declare the CONSORCIO HIDROELECTRICA HIDROITUANGO S.A. E.S.P, EPM, the MAYOR'S OFFICE OF MEDELLÍN and others, jointly and severally and administratively liable for all patrimonial and extrapatrimonial damages caused to the plaintiffs, as a result of the emergency generated by the overflow of the Cauca River and until July 26, 2019, an event that originated in the Ituango Hydroelectric Project. Therefore, the defendant entities must pay $87,780,300 to each of the 19 plaintiffs.	2,894
Diego Alberto Olaya Sánchez	That the defendant entities be declared administratively responsible for the facts complained of. As a result of the above declaration, the Court ordered to pay moral damages of 87,780,300 for each of the 19 defendants. Consolidated loss of earnings, for the months that these people were away from their homes. 100 minimum wages for each plaintiff for constitutional and conventional goods.	2,889
Ruben Dario Escobar Villa	It is declared that within the employment relationship, the plaintiff performed work schedules in the standby modality, without these times having been paid.	1,661
Sebastian Garzon Lopez	Request reimbursement from EPM for state of health and employer's fault for work accident	1,389
Juliana Urrea Giraldo	It is intended to declare the employer's fault of the MISPE Consortium and jointly and severally to EPM, for the payment of patrimonial and extrapatrimonial damages	1,144
Ciudadela Comercial Unicentro Medellín Ph	To decree the nullity of the administrative act issued by EPM with file 20190130037817 of 2019-02-27. To order the restoration of the plaintiff's right by ceasing to collect the electricity tax provided for in Law 142 of 1994, Law 143 of 1994 and Law 223 of 1995; and, to make the refund of what was paid for this concept from January 1, 2017 and until the date of judicial notification that ends the process.	382
Parcelación Estación Popalito P.H.	That by way of reinstatement of the right, the refund of the sums paid for the concept of Electric Energy Tax by the Popalito PH Parcel to EPM from December 1, 2016 to June 2021 and November 2022, for a value of $13,958,822 COP, is ORDERED. To condemn for the value of the default interest at the maximum legal rate on the sums paid for the concept of Electricity Tax, until the date on which the respective refund of these sums is made from May 20, 2022.	10
Total contingent liabilities		**1,852,526**

- Amounts stated in millions of Colombian pesos -

With respect to the uncertainty in the estimated payment date and the estimated value to be paid, the same business rules indicated apply to contingent liabilities, See note 27.1.2. Litigation.

EPM also has as a contingent liability, Environmental Sanctionary Procedures, with the following information:

Third party	Claim	Amount
Aburrá Valley Metropolitan Area	Discharge of wastewater from the San Fernando WWTP in breach of the minimum 80% removal level for the parameters DBO5_Demanda Biochemistry of Oxígeno, SST_Sólidos Suspended Totales, fats and oils established in Article 72, new user, of Decree 1594 of 1984. Metropolitan Resolution No. S.A. 000415 of April 28, 2014. A closing argument was presented.	It is not possible to know the sanction to be imposed.
National Environmental Licensing Authority "ANLA"	Construction of mini-power plant without authorization and use of ecological flow to generate energy without being authorized in an environmental license (Porce III hydroelectric plant) Auto 4335 of December 17, 2013.	It is not possible to know the sanction to be imposed
Aburrá Valley Metropolitan Area	Discharge of domestic wastewater into the La Paulita creek as a result of the rupture of the collector. St. Peter's Building.	It is not possible to know the sanction to be imposed.
National Environmental Licensing Authority "ANLA"	Thermosaw 1. For carrying out the air quality sampling reported in ICAs 13, 14 and 15, without the periodicity established by the Industrial Air Quality Monitoring System, authorized in the environmental instrument corresponding to this project. 2. For carrying out environmental noise monitoring reported in ICAs 13, 14 and 15, with an Environmental Laboratory not accredited by IDEAM._Auto 350 of February 5, 2018. SAN0142-00-2017.	No charges have been filed, and it is not possible to know what sanction will be imposed.
National Environmental Licensing Authority "ANLA"	Use of explosives in the construction of the Nueva Esperanza tower. The environmental license granted by this resolution does not cover any type of work or activity other than those described in the Environmental Impact Study, the Environmental Management Plan and in this administrative act. Order 02574 of June 27, 2017 ANLA.	It is not possible to know the sanction to be imposed; Defenses were filed
Aburrá Valley Metropolitan Area	Discharge of domestic wastewater from the rupture of the sewer pipe that carries said water, over a pasture and later over the Doña María stream, a property called Torremolino. Closing arguments were presented on September 2, 2022.	It is not possible to know the sanction to be imposed; No charges have been filed.
Aburrá Valley Metropolitan Area	In an authorized occupation of the riverbed on the La Malpaso creek, a covering of the bed and walls of the same in cyclopean concrete was observed, work was not approved by the environmental authority. Metropolitan Resolution No. S.A. 1002 of June 4, 2020 Aburrá "By means of which an administrative sanctioning procedure of an environmental nature is initiated".	It is not possible to know the sanction to be imposed; No charges have been filed.
National Environmental Licensing Authority "ANLA"	Failure to submit the Definitive Biodiversity Loss Compensation Plan, in accordance with the established guidelines and Environmental License, in accordance with the provisions of the Manual for the Allocation of Biodiversity Loss Offsets issued by the Ministry of Environment and Sustainable Development. New Hope. HOME ORDER No. 08029 (August 24, 2020), File: SAN0175-00-2020	It is not possible to know the sanction to be imposed; it has only started.
National Environmental Licensing Authority "ANLA"	1. Having carried out the discharge of the wastewater generated in the Nueva Esperanza Substation, by means of infiltration fields, without having the respective modification of the Environmental License. 2. Failure to present the results obtained on the occasion of the measurements made on the concentrations of particulate matter, SOx, NOx, which were carried out during the construction phase of the Nueva Esperanza Substation. 3. Not having carried out fauna monitoring for groups of mammals, amphibians and reptiles for the year 2018." New Hope. Order 01479 of March 17, 2021 -SAN030-00-2021	Discharges were filed on July 19, 2023 POSSIBLE
Ministry of Environment and Sustainable Development - MAD	Failure to provide documentation of the El Banqueo property, on its acquisition and participation of the Environmental Authority in its selection, removal of forest reserve area, Nueva Esperanza 500 kv project. Cessation of proceedings requested 28/11/2022	It is not possible to know the sanction to be imposed; it has only started.
Aburrá Valley Metropolitan Area	Verify the facts or omissions constituting an infringement of the environmental regulations in force regarding the flora resource. Irregular pruning intervention of one (1) tree specimens of the Chiminango species. Metropolitan Resolution No. S.A. 001 of January 2, 2023 By means of which an environmental sanctioning procedure is initiated	Discharges were filed on September 5, 2023. Disclaimers Possible.
Aburrá Valley Metropolitan Area	Discharge of sludge into the outlet channel of the lagoon to the Aburrá-Medellín River, then dilution with water from the Manantiales water treatment plant, with a flow rate of approximately 26 liters/second (diluted sludge) on September 9, 2021. Metropolitan Resolution No. S.A. 2357 of September 21, 2022. By means of which an environmental sanctioning procedure is initiated	Defenses were filed. POSSIBLE.
Aburrá Valley Metropolitan Area	Verify the facts or omissions constituting an infraction of the environmental regulations in force in the field of natural water resources, basically due to the failure to submit timely information. Metropolitan Resolution No. S.A. 0027 of January 3, 2023 By means of which an environmental sanctioning procedure is initiated	Possible
Regional Autonomous Corporation of the Negro and Nare_ CORNARE_ River Basins	Alleged unauthorized intervention in the course of the unnamed water source in the Tram sector of the municipality of Rionegro and the capture of a flow of water in a hydraulic work, directed entirely by a canal, without permission from the competent environmental authority. Resolution RE-00012-2023 By means of which a preventive measure is imposed	Possible

Third party	Claim	Amount
National Environmental Licensing Authority "ANLA"	1. Failure to submit certificates, records and information in Environmental Compliance Reports 2. For not restoring all eroded and devegetated areas. 3. Improperly disposing of surplus construction materials. 4. Carry out a forest use greater than that approved in the Environmental License, on the cover of Gallery or riparian forest" 5. Carry out the construction and installation of 2 new towers. "MAGDALENA MEDIO A 230 KV". By means of Order 4577 of June 17, 2022, it orders not to accede to the requested cessation of the procedure and formulates a statement of five charges. On July 15, charges were filed against Order 4577 of June 17, 2022. ORDER No. 03458 (June 27, 2018)-SAN-140-00-2017. Order 4577 of June 17, 2022."	Possible
CORANTIOQUIA _ Aburrá Sur	Occupation of the riverbed in the La Honda creek without authorization	Possible
CORANTIOQUIA _ Aburrá Sur	Alteration of water resources and landscape. Presence of blue coloration in the La Sucia creek, which converges on the right bank of the Medellín River at the height of the channeling of the La Sucia and La Mina streams at the bridge of the Envigado Metro Station.	Discharges were filed on December 27, 2023. Possible
CORANTIOQUIA _ Aburrá Sur	Alleged impact of sewage on the La Hondita creek	Possible
CORANTIOQUIA _ Aburrá Sur	Damage to the local networks and the associated collectors of the sewage sewer system in the Refugio del Esmeraldal subdivision. Administrative Act 130AS-1208-9159 of August 2, 2012.	Possible
CORANTIOQUIA _ Aburrá Sur	Dumping of domestic wastewater on the banks of the Peladeros creek in the village of Los Gómez in the village of El Manzanillo in the municipality of Itagüi. Administrative Act 130AS-1601-12557 of January 26, 2016.	Possible
CORPOGUAJIRA	For not complying with paragraph f of article 2,2,6,1,3,1 of Decree 1076 of 2015 regarding the obligations of the generator of waste or hazardous waste in the Jepírachi wind farm (register with the competent environmental authority only once and keep the information of its registry updated annually). Order 976 of October 2, 2017; Resolution 1373 of September 29, 2020.	It is not possible to know the sanction to be imposed; No charges have been filed.
National Environmental Licensing Authority "ANLA"	Improper practices with respect to surface water sources in the project's area of influence; having captured water resources from the El Roble", "Burundá", "Bolivia" and "Guacimal" streams, in flows higher than those concessioned and/or authorized for the development of the project; not having implemented in each of the concessioned water bodies, the infrastructure that would allow monitoring the remaining flows, for the purpose of being presented in the environmental compliance reports; Failure to carry out and deliver water quality monitoring and hydrobiological communities in the Cauca River, under the conditions established in the environmental license. For not having carried out the reshaping and recovery of the course of the "San Andrés River" and its flood zone to its natural conditions, within the period granted; having made use of stone materials from the "San Andrés River" without updated environmental permits; for not having delivered the results of the sediment monitoring of "Río Cauca", in order to establish the baseline of comparison at the time of starting the operation phase of the project. Having exceeded the maximum permissible levels of PST (particulate matter) and air pollutants in the asphalt plant located in the "El Valle" Industrial Zone; for not having built the necessary facilities and infrastructures in the chimney of the asphalt plant for monitoring emissions from fixed sources; for failing to comply with the management measures of the "Plan for the Management and Disposal of Materials and Dump Areas", disposal of plant material mixed with inert material inside the deposits and lack of signage of the material disposal areas that remain active. All this in the area of influence of the project "construction, filling and operation of the Pescadero - Ituango Hydroelectric Project... (SAN0033-00-2019_Auto 2920 of 2015)."	It is not possible to know the sanction to be imposed. Presentation of defenses with file number 2018041852-1-000 of April 10, 2018
National Environmental Licensing Authority "ANLA"	Order 00009 of January 8, 2021, the ANLA initiates the environmental sanctioning procedure for the contingency associated with the auxiliary diversion system, to verify the following facts: 1. Failure to report within the period provided by law (24 hours) the contingent event that occurred on April 28, 2018. 2. Having continued with the construction of the ODS and its infrastructure, without having sufficient technical information related to the environmental characterization of the intervened area for the geology and geotechnical components. 3. For allegedly generating negative impacts on renewable natural resources. 4. Failure to guarantee for the first days of May 2018 and before the evacuation of water dammed from the Cauca River by the project's powerhouse began, the ecological flow of said source downstream of the dam site, to ensure the integrity of the ecosystem services and environmental protection goods that are part of the water source. For the contingency associated with the Auxiliary Deviation System. *No charges have been filed; however, a request for cessation of the sanctioning procedure was filed through file No. 2018064395-1-000 of May 24, 2018 (SAN0097-00-2018_Auto 02021 of 2018)	Without having filed charges, it is considered by the lawyer as possible. On December 30, 2021, the expert opinion (Poyry) was presented for the lifting of the preventive measure. By means of Order No. 4076 of June 7, 2023, notified on June 16, the ANLA ordered a series of administrative proceedings in the course of the environmental sanctioning procedure. To date, no charges have been filed.
National Environmental Licensing Authority "ANLA"	HIDROELÉCTRICA ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. *Initiation of sanctioning proceedings for not guaranteeing the ecological flow downstream of the dam of the project Construction and operation of the Pescadero - Ituango hydroelectric project" to ensure the integrity of the ecosystem services and environmental protection goods that are part of the "Río Cauca" water source. By Order 4915 of June 29, 2022, charges were filed. A statement of defence was filed on 5 August 2022. Order No. 8016 of September 29, 2023 - ANLA opens the probationary period and orders the taking of evidence requested by the Company and those considered by it. *No charges have been filed. (SAN0001-2019_Auto 0060 of 2019/01/21)"	No charges have been filed, it is considered by the lawyer as possible.

Third party	Claim	Amount
National Environmental Licensing Authority "ANLA"	HIDROELÉCTRICA ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. 1. Discharge into intermittent dry riverbed coordinates X=1157241 and Y=1281506 2. Discharge into the rainwater channel from the mixer washing system located in the industrial area of main works The ANLA opened a disciplinary proceeding but it has not been formally initiated. By Resolution No. 1222 of December 3, 2013, the ANLA imposed a preventive measure to suspend the dumping. By means of Resolution No. 1363 of October 31, 2017, the ANLA lifted the aforementioned preventive measure. Order 1282 of March 22, 2019, an environmental sanctioning file was opened Order 03429 of April 24, 2020, ANLA Initiates Environmental Sanctioning Procedure Order No. 1821 of March 21, 2023, ANLA formulates a statement of objections. With Vital file No. 3500081101479823041 of April 14, 2023, a statement of defense is filed. Official Letter No. 20231420526581 of October 20, 2023 by which the ANLA summons witnesses to witness proceedings. On October 26, the testimony was taken. License file LAM2233 for them to be included in file SAN0031-2019.	No charges have been filed, it is considered by the lawyer as possible.
National Aquaculture and Fisheries Authority - AUNAP	HIDROELÉCTRICA ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. *Initiation of preliminary investigation for effects on fishing activity during the closure of the powerhouse gates. *No charges have been filed. (No file AUNAP_Auto 002 of February 14, 2019).	No charges have been filed, it is considered by the lawyer as possible.
National Environmental Licensing Authority "ANLA"	HIDROELÉCTRICA ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. Repeated failure to comply with obligations imposed. The ANLA filed charges through Order No. 8082 of October 3, 2023. By means of a document with file VITAL No. 3500081101479823141 of October 30, 2023, a statement of defense was filed. The sanctioning procedure is pending Order 11359 of December 19, 2019. SAN0284-00-2018 _diciembre 19, 2019.	Situation not resolved. To date, no charges have been filed.
National Environmental Licensing Authority "ANLA"	HIDROELÉCTRICA ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. Failure to comply with contingency obligations: - Failure to permanently carry out the proper management of non-domestic wastewater and filtration on the left bank of the 380 mi Gallery. - Not having presented the hydrogeological model of the right bank of the project. - Failure to submit cartographic information related to water quality and hydrobiological monitoring that was to be carried out at different points downstream of the project's dam site. - Failure to present the results of the monitoring of offensive odours, water quality and physicochemical quality of the sludge during the pumping activity of the powerhouse. Order No. 2423 of March 30, 2020, initiating environmental sanctioning proceedings. With file VITAL No. 3500081101479823014 an appeal for reconsideration is filed against Order No. 00101 of 2023, which denied the taking of evidence. Order No. 3541 of May 19, 2023, by which the ANLA confirms Order No. 00101 of January 11, 2023, which denies the taking of evidence. Official Letter No. 20236600141911 of June 9, 2023, by which the ANLA responds to an authorization submitted by the company Hidroeléctrica Ituango S.A. E.S.P. for the electronic notification of Order No. 3541 of May 19, 2023, in which the entity denies an appeal for reconsideration filed against Order No. 00101 of January 11, 2023 (which denies testimonial evidence), that decision is final. SAN0030-00-2020_ March 30, 2020_ To date, no charges have been filed.	Unresolved situation. Charges were filed by Order 9812 of November 18, 2021 and discharges were filed on December 13, 2021.
National Environmental Licensing Authority "ANLA"	HIDROELÉCTRICA ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. Repeated failure to comply with the obligations imposed within the framework of the contingency. Initiation of the environmental sanctioning procedure by Order No. 06576 of July 13, 2020. The ANLA formulated a statement of objections through Order No. 7190 of September 6, 2023. On September 29, 2023, a statement of defense was filed with file VITAL No. 3500081101479823123 SAN1285-00-2019 _ July 13, 2020_	Situation not resolved. To date, no charges have been filed.
National Environmental Licensing Authority "ANLA"	HIDROELÉCTRICA ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. _ Carrying out air quality and odor monitoring without complying with the protocols established by the Ministry of Environment. To analysis of samples for air quality and odour sampling by laboratories not accredited by IDEAM. Initiation of the environmental sanctioning procedure by Order No. 07774 of August 14, 2010. Charges were filed by Order 9931 of November 22, 2021 and discharges were filed on December 13, 2021. By means of file VITAL N°3500081101479823015 an appeal for reconsideration is filed against Order No. 00104 of 2023 by which the ANLA denies the taking of evidence. Order No. 3418 of May 15, 2023, by which the ANLA resolves the appeal for reconsideration filed against the second article of Order No. 00104 of January 11, 2023, confirming it in its entirety. SAN1258-00-2019 August 14, 2020. To date, no charges have been filed.	Situation not resolved. To date, no charges have been filed.

Third party	Claim	Amount
National Environmental Licensing Authority "ANLA"	HIDROELÉCTRICA ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. _ Discharges and catchments of water at unauthorized points, exceedance of catchment flow with respect to the authorized, lack of monitoring in specific periods, exceedance of discharged flow with respect to the authorized flow. Initiation of the environmental sanctioning procedure by Order No. 4173 of June 2, 2022. Through Resolution No. 00617 of March 29, 2023, the ANLA imposes a preventive measure consisting of the suspension of the discharges of domestic wastewater that are discharged into the water sources Río San Andres" and "Quebrada Tacuí", from the domestic wastewater treatment systems of the Tacuí Cuní Camp, "TACUÍ CASINO PORTERIA". SAN0067-00-2022 June 2, 2022. To date, no charges have been filed."	No charges have been filed, it is considered by the lawyer as possible.
National Environmental Licensing Authority "ANLA"	HIDROELÉCTRICA ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. _ 1. Failure to implement measures to control erosion and degradation of the conditions of the slopes and on the upper and lower slopes in the area called La Honda", between the abscissas of Km 17+800 - Km 18+221 - Bridge 32 in the La Honda creek of the Puerto Valdivia - Presa road. 2. Having carried out the occupation of the channel of the "Quebrada Tacuí" body of water, without having previously obtained the modification of the Environmental License granted for the development of the project (Res. no. 0155 of 2009). Order No. 5345 of July 17, 2023 by which the ANLA orders the initiation of environmental sanctioning proceedings SAN0076-00-2023 July 17, 2023. To date, no charges have been filed."	No charges have been filed, it is considered by the lawyer as possible.
Aburrá Valley Metropolitan Area	Presumed environmental impact on the flora resource due to the severe pruning of one (1) tree individual of the species Cheflera (Schefflera actinophylla). Metropolitan Resolution No. S.A. 1050 of June 8, 2020 "By means of which an environmental sanctioning procedure is initiated".	It is not possible to know the sanction to be imposed; No charges have been filed.
Corantioquia - Aburrá Sur Territorial Office	Failure to comply with the permit for forest harvesting and use of species in good condition and in closure without a permit. Administrative Act 160AS-1506-12031 of June 17, 2015.	It is not possible to know the sanction to be imposed; Defenses were filed
Corantioquia - Tahamíes Territorial Office	To bring charges against EMPRESAS PÚBLICAS DE MEDELLIN, identified with NIT 890.904.996-7, for the alleged commission of environmental infractions by way of fault and for the damage caused to the flora resource, derived from the facts consisting of the burning of an area of approximately 10 hectares, 2.5 hectares of natural forest and stubble. Resolution 160TH-ADM1903-1901 of March 29, 2019- TH4-2013-8	It is not possible to know the sanction to be imposed.

EPM also has as a contingent liability, Works for Taxes Mechanism, with the following information:

In exercise of the provisions of article 238 of Law 1819 of 2016, Empresas Públicas de Medellín E.S.P. -EPM- as a taxpayer of income and complementary taxes was linked to the mechanism of works for taxes, among others, with the project "Improvement of tertiary roads in Cocorná" prior concept of technical feasibility of the Ministry of Transportation, as a form of payment of a portion of the income tax of the taxable period 2017 for the sum of $33,701 million, with a 10% participation by the Company Energy of Quindío S.A. E.S.P. -EDEQ-. Subsequently, the Ministry of Transportation objected to the scope of the project, leading to the disappearance of the factual and legal support of the administrative act linking the mechanism, for which reason it lost its enforceability and consequently the project became unexecutable for EPM.

By virtue of the foregoing and considering the decay of the administrative act, it is expected that the Directorate of National Taxes and Customs DIAN will issue the administrative act with which the extinction of the tax obligation would be obtained once the judicial discussion is concluded, in that order, the company is exploring alternatives and taking steps to achieve the closure of this issue. This situation could imply an accounting recognition of interest for arrears pending determination and assumption of the costs executed in the work, which to date amount to $1,011 million,

once the procedure to which this matter is subject under the terms of Decree 1625 of 2016 is concluded.

In line with the exploration of alternatives that has been carried out, with the purpose of mitigating the risk of interest being caused by future arrears in the income tax of the taxable year 2017 of EPM and EDEQ, in the event of a possible declaration of non-compliance by means of a final administrative act by the competent national authority or a ruling by a judicial authority, An advance deposit was made on September 16, 2022, in favor of the DIAN for $77,985, which is reflected in the financial obligation of the companies as a surplus, which in legal and tax terms is equivalent to an overpayment or of what is not due and can be returned to taxpayers once this matter is definitively resolved in their favor. The deposit of these resources in no way obeys an express or tacit conduct of acceptance of any type of responsibility on the part of EPM and EDEQ and does not imply acceptance or manifestation of non-compliance with their obligations derived from the link to the mechanism of works for taxes. Nor do they waive any claims they may make in relation to this matter to show that there is no breach and therefore no interest or penalties should be paid.

Once it is determined that there was no non-compliance with the works for taxes mechanism by taxpayers, the DIAN must return any sum that results in favor of EPM and EDEQ.

In addition to the above, and as a mechanism to protect the interests of the companies, EPM filed a lawsuit before the Administrative Court of Antioquia in the exercise of the means of control of nullity and restoration of the right against: the Agency for the Renewal of the Territory (ART), the Ministry of Transport, the National Institute of Roads (INVIAS), the Directorate of National Customs Taxes (DIAN), and the National Planning Department (DNP). In order that, among others: the nullity of the administrative act issued by the Territorial Renewal Agency on May 13, 2022, by virtue of which it refuses to recognize the exception of the loss of enforceability and/or request for a study of direct revocation of Resolution 175 of 2018 "by which a request for the payment of income tax and complementary taxes is approved" is declared null and void. an investment project in the areas most affected by the armed conflict – ZOMAC"; recognize the exception of "loss of enforceability" and, consequently, refrain from requiring EPM and EDEQ to comply with the obligations contained in Resolution 175 of 2018 issued by the ART, due to the lapse of the act within the framework of their competences within the works for taxes mechanism; it is declared that EPM and EDEQ made the timely and full payment of the resources destined for the cancellation of the income tax for the 2017 annuity. An

appeal filed by EPM against the order rejecting the claim on the grounds that the act issued by the ART is not subject to judicial review is currently pending, pending the decision on the appeal by the Fourth Section of the Council of State.

It is important to note that since May 24, 2018, the resources for the payment of income tax by EPM and EDEQ taxpayers were deposited in the trust provided for the works-for-taxes mechanism whose income is recognized in favor of the competent national authority and therefore there is no reason to understand that there is a delay in the fulfillment of the tax obligation by the taxpayers. As of December 2023, yields amount to $11,508 million, of which $448 million have already been transferred to the General Directorate of Public Credit and National Treasury.

Contingent Assets

Third	Claim	Amount
Administrator Of Social Security Resources (Adres Sa)	The Ministry of Health has the legal and constitutional obligation to recognize and cancel the value of the services provided to members in relation to medicines and/or procedures, interventions or elements not included in the Compulsory Health Plan (POS).	21,697
Interamericana De Productos Químicos S.A. (Interquim S.A.)	That by means of a judgment, the expropriation in favor of EPM of the right of ownership of the property called "Finca Torremolino" located in the village of San Diego, in the Municipality of Girardota, owned by INTERAMERICANA DE PRODUCTOS QUÍMICOS S.A.S., be decreed, by judicial means, which will be used for the execution of the project the Project "PEI1213GARCE WWTP'S DEL NORTE COPACABANA Y GIRARDOTA" of which the "WWTP GIRARDOTA" is a part, Girardota Wastewater Treatment Plant. That in the judgment ordering the expropriation of the right of ownership with respect to the property, it is declared that the compensation or price to be paid by EPM is $10,589,314,000, in accordance with the technical report of Appraisal CM-2022-00577.	9,705
Miscellaneous Administrative	Process for an amount less than $1,307.	8,334
Constructora Monserrate De Colombia Sas	The expropriation in favor of EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. is decreed by judicial means for the Project "Expansion of the Capacity of the Primary Distribution in the Western Sector of Medellín-Cadena Occidente Tanque Calazans" property called Lot 7, located in the Altos de Calazans sector, of the Municipality of Medellin owned by the Company CONSTRUCTORA MONSERRATE DE COLOMBIA SAS.	7,656
Poblado Club Campestre Ejecutivo S.A.	Declare that Interconexión Eléctrica S.A. E.S.P., ISA is civilly liable for not recognizing EPM, the value to which it is entitled, of the remuneration that ISA received between 1995 and 1999, for the line modules that correspond to assets used by the STN in the Playas and Guatapé substations represented by it; in which there is shared ownership, a value that to date has not been realized, generating unjust enrichment by increasing the assets of the defendant at the expense and to the detriment of the assets of the plaintiff.	4,533
Notary Office 25 Of Medellín	A refund of the amount paid by EPM ITUANGO S.A. E.S.P., on December 1, 2011, duly indexed, is requested.	3,646
Municipality Of Envigado	Declare EPM E.S.P., is not obliged to pay to the Municipality of Envigado the amount stated in Resolutions No. 655 of 2004/03/17 "By means of which the valorization contribution is distributed for the work "Construction of aqueduct and sewerage networks in the urban expansion and sewerage zone in a sector of the village of El Escobero" nor to agreement 015 of 2000/06/30 containing the POT, in the section that classifies the land uses of the lot of the Ayurá Plant owned by Empresas Públicas de Medellín	1,307
Corantioquia - Corporación Autónoma Regional Del Centro De Antioquia	To declare null and void Article 5 of the Resol. 130 TH-1302-9864 issued by the Territorial Director TAHAMIES of "CORANTIOQUIA" for the fee for the use of surface water for 2011, from the Rio Grande source; reimburse EPM, the highest amount cancelled for the fee for the use of Surface Water Dec. 155 - 4742, Hydrological Unit: MAGDALENA RIVER - CAUCA, for 2011 made with invoice TH - 1927 of 2012/04/30. To order Corantioquia to recognize and pay EPM the legal, current and default interest that has been caused; to the payment of costs and agencies in law of conformity.	834
Sspd - Superintendence Of Residential Public Services	To declare the partial nullity of the following administrative acts issued by the SSPD: - Official Settlement of the Special Contribution Year 2022 for aqueduct and Official Settlement of the Special Contribution Year 2022 for sewerage. As a consequence of the nullity, EPM's right is restored, ORDERING the SSPD to reimburse the sum of money corresponding to the highest amount cancelled for the aforementioned concept, equivalent to $1,266,300,000, and to recognize and pay the interest caused on the amounts claimed from the time of payment of the contribution.	778
Various Prosecutors	Process for an amount less than $657.	592
Total contingent assets		**59,082**

- Amounts stated in millions of Colombian pesos -

As of December 31, 2022, the value determined by the experts to be compensated is $59,082.

Pagos y recaudos estimados

contingent liabilities or will receive the collections for the contingent assets included in this note to the statement of financial position of EPM at the cut-off date, is the following:

Year	Contingent liabilities	Contingent assets
2024	854,094	21,243
2025	302,594	11,097
2026	201,474	1,926
2027 and Others	3,014,153	39,754
Total	**4,372,315**	**74,020**

- Amounts stated in millions of Colombian pesos -

Note 28.

Other liabilities

The composition of other liabilities is as follows:

Other liabilities	2023	2022
Non-current		
Other deferred credits [1]	20,810	20,880
Assets received from clients or third parties	7,646	7,732
Deferred income [2]	1,915	2,122
Resources received in administration	253	997
Collections in favor of third parties [3]	10	10
Sub-total other non-current liabilities	**30,634**	**31,741**
Current		
Deferred income [2]	1,002,482	500,042
Collections in favor of third parties [3]	207,869	386,549
Resources received in administration	4,294	15,369
Advances and advance payments received	507	507
Sub-total other current liabilities	**1,215,152**	**902,467**
Total	**1,245,786**	**934,208**

- Amounts stated in millions of Colombian pesos -

[1] *It corresponds to the collection of works and improvements on other people's properties in urban planning concepts.*

[2] *It corresponds to the collections received for leasing, sales of energy service, public lighting, reliability charge, registration of the POIR for aqueduct and sewerage, sales of gas service, agreements made with different entities and compensations from the biller.*

[3] *It corresponds to the collections received for contributions of public works and UdeA stamp, from the employees' fund, from the Sanitation fee to Emvarias, Public lighting to the different municipalities of Antioquia, the commercial representation contract that EPM has with ESSA and CHEC and the collections to be classified according to IAS32.*

28.1. Deferred income

The detail of deferred income of the cut-off date was:

Deferred income	2023	2022
Non-current		
Leases	1,338	1,511
Sale of energy service	519	553
Construction Contracts	58	58
Total non-current deferred income	**1,915**	**2,122**
Current		
Sales [1]	613,731	272,549
Sale of energy service [2]	101,526	93,377
Sale of aqueduct service [3]	135,955	84,585
Sewer Service Sale [3]	81,784	45,792
Other deferred credits [4]	64,589	(532)
Sale of fuel gas service	3,499	3,511
Construction Contracts	1,225	587
Leases	173	173
Total current deferred income	**1,002,482**	**500,042**
Total deferred income	**1,004,397**	**502,164**

- Amounts stated in millions of Colombian pesos -

[1] *The increase is explained by higher amounts received in advance for the services provided, mainly in long-term energy, electricity and regulated market energy contracts.*

[2] *The increase was mainly in reliability charges.*

[3] *This value is recorded annually for the Water Tariff Structure, which applies to the measurement and recognition of the revenue received in advance from the execution. of the "Regulated Works and Investment Plan (POIR)", which is approved by the CRA and generates the obligation to execute the investments, the component of the fee that corresponds to this obligation should not be recognized until it is executed, since IFRS 15 establishes that an entity will only recognize income when it has satisfied the required or contracted performance obligations.*

[4] *The increase was due to higher turnover collected during 2023, related to third parties such as Nitro Energy Colombia SAS and municipalities*

Note 29.

Changes in liabilities from financing activities

The reconciliation of the liabilities that arise from financing activities is as follows:

Reconciliation of 2023 financing activities	Initial balance	Cash flows	Changes other than cash		Other changes [1]	Total
			Foreign currency movement	Fair value		
Loans and Borrowings (see note 21)	20,445,395	2,039,237	(2,103,832)	-	(295,717)	20,085,084
Lease liabilities (see notes 14 and 23)	2,764,314	(15,546)	-	-	282,738	3,031,506
Pension bonds	528,223	(43,278)	-	-	137,031	621,977
Hedging instruments	(459,935)	-	-	2,090,842	(724,645)	906,263
Dividends or surpluses paid (see note 19)	-	(1,748,005)	-	-	1,748,005	-
Capital grants	-	47	-	-	(47)	-
Other financing flows	-	(3,259)	-	-	3,259	-
Total liabilities for financing activities	**23,277,997**	**229,196**	**(2,103,832)**	**2,090,842**	**1,150,624**	**24,644,830**

- Amounts stated in millions of Colombian pesos -

Reconciliation of 2022 financing activities	Initial balance	Cash flows	Changes other than cash		Other changes [1]	Total
			Foreign currency movement	Fair value		
Loans and Borrowings (see note 21)	18,833,096	(400,244)	1,726,043	-	286,500	20,445,395
Lease liabilities (see notes 14 and 23)	2,552,044	(14,252)	-	-	226,522	2,764,314
Pension bonds	549,981	(57,329)	-	-	35,571	528,223
Hedging instruments	29,020	37,239	-	(328,941)	(197,253)	(459,935)
Dividends or surpluses paid (see note 19)	-	(1,850,775)	-	-	1,850,775	-
Capital grants		78			(78)	-
Other financing flows		1,503			(1,503)	
Total liabilities for financing activities	**21,964,141**	**(2,283,780)**	**1,726,043**	**(328,941)**	**2,200,534**	**23,277,997**

- Amounts stated in millions of Colombian pesos -

[1] *It includes interest paid during the year of $1,492,111 (2022: $1,257,578), which by company policy are classified as operating activities in the statement of cash flows; the variation in the measurement at amortized cost of credits and loans $1,336,622 (2022: $1,010,778); and dividends incurred and not paid during the year are classified as investing activities in the statement of cash flows*

Note 30.

Ordinary activities revenue

The company, for presentation purposes, breaks down its income from the services it provides, according to the lines of business in which it participates and the way in which the administration analyzes them. The detail of revenue from ordinary activities is as follows:

Revenue from ordinary activities	2023	2022
Rendering of services		
Energy generation service [1]	6,864,793	5,316,477
Energy distribution service [2]	5,672,660	5,047,208
Fuel gas service [3]	1,539,950	1,240,598
Aqueduct service [4]	1,034,498	888,040
Sanitation service [4]	747,636	658,316
Energy transmission service [5]	237,074	221,033
Financing component	240,485	230,352
Other services [6]	119,733	97,556
Billing and collection services	42,291	36,677
Computer services	17,733	15,724
Fee	9,867	4,649
Commissions	1,046	801
Contracts with clients for the construction of assets	60	54
Returns	(518,084)	(636,103)
Full provision of services	**16,009,742**	**13,121,382**
Leases	80,463	80,063
Sale of goods	12,755	9,043
Total	**16,102,960**	**13,210,488**

- Amounts stated in millions of Colombian pesos -

[1] *The increase in power generation and trading services was driven by higher sales of energy on the stock market and in the long term by higher market prices.*

[2] *The increase in the energy distribution and marketing service is mainly due to the recognition of the tariff option in accordance with CREG resolutions 102 and 058 of 2020 for a value of $52,182; in addition to an increase in the energy rate due to the fact that its components have an impact of macroeconomic factors (IPP and CPI), along with a greater amount of energy sold.*

[3] *The increase in the gas distribution and marketing service is due to higher tariffs due to higher TRM and macroeconomic factors (CPI and IPP), in addition, due to growth in demand in the regulated market, increase in sales to thermal power generation plants and other marketers.*

[4] *In the segments of water supply and marketing and wastewater management and marketing, the increase is explained by greater users and an increase in rates due to indexation.*

[5] *Increase in the energy transmission service due to the behavior of macroeconomic variables.*

[6] *Increase in other services, mainly in the Shared Services Center, due to greater technical support services specialized in hardware and software and in Others due to billing and collection from third parties.*

In the company, performance commitments are fulfilled and measured in a cyclical way, since the company is mainly dedicated to the provision of

public services (regulated and non-regulated market, long-term contracts and secondary market) and the provision of services related to the services to other agents in the sector (reliability charge, firm energy, AGC). Said public services are delivered to the user permanently, plus consumption is measured and income is recognized periodically, typically monthly.

The company recognizes all its income from the satisfaction of performance obligations and most of its contracts with clients have a duration of less than one year.

The company recognized the following values in the period, for the contracts in force at the cut-off date described in the previous paragraph:

Other contracts with clients

2023	Balance of the contract asset at the beginning of the period	Balance of the contract asset at the end of the period	Balance of the liability at the beginning of the period	Liability balance at the end of the period	Revenue recognized during the period corresponding to the liability of the previous period
Uniform conditions contract for regulated services [1]	1,150,069	804,861	133,220	220,767	46
XM representation contract	55,307	11,849	-	-	-
Unregulated Market - MNR or Large Clients [2]	130,646	12,060	94,599	102,517	94,599
Total	**1,336,022**	**828,770**	**227,819**	**323,284**	**94,645**

- Amounts stated in millions of Colombian pesos -

2022	Balance of the contract asset at the beginning of the period	Balance of the contract asset at the end of the period	Balance of the liability at the beginning of the period	Liability balance at the end of the period	Revenue recognized during the period corresponding to the liability of the previous period
Uniform conditions contract for regulated services [1]	728,897	1,150,069	42,879	133,220	788
XM representation contract	-	55,307	-	-	-
Unregulated Market - MNR or Large Clients [2]	163,104	130,646	7,019	94,599	7,019
Total	**892,001**	**1,336,022**	**49,898**	**227,819**	**7,807**

- Amounts stated in millions of Colombian pesos -

[1] *The purpose of this contract is to define the uniform conditions through which the company provides residential public services in exchange for a price in cash, which will be set according to current rates and according to the use given to the service by the users. users, subscribers or property owners, hereinafter the user, who, by benefiting from the services provided by the company, accepts and accepts all the provisions defined herein.*

Liabilities in uniform conditions contracts mainly include the provision of the Regulated Works and Investment Plan (POIR) for Water Provision and Solid Waste Management services, as established by the Commission for the Regulation of Drinking Water and Basic Sanitation in resolution CRA 688 of 2014.

[2] *Resolution 131 of December 23, 1998 of the Energy and Gas Regulation Commission (CREG) establishes the conditions of energy and power supply for large consumers and indicates in article 2 the power or energy limits for a user to can contract the supply of energy in the competitive market; the aforementioned resolution allows the signing of contracts with large consumers to establish by mutual agreement the prices of energy and power supply; The purpose of the contract is to supply energy and electrical power to the consumer, as an unregulated user, to meet their own demand. The increase in the liability is related to reliability charges related to a higher value received from the sale of the energy service.*

Another important contract is the XM representation contract, which manages the Colombian Wholesale Energy Market, attending to the commercial transactions of market agents.

The company expects to recognize the income corresponding to the performance obligations that are not satisfied during the next accounting period, since it is mostly related to the contracts of uniform terms corresponding to residential public services, the duration of which is less than one year.

Note 31.

Other income

The detail of other income, which forms part of revenue from ordinary activities, is as follows:

Other income	2023	2022
Recoveries [1]	86,415	154,872
Indemnities [2]	11,743	56,044
Investment property valuation [3]	9,863	17,228
Uses [4]	8,613	14,586
Other ordinary income	5,577	10,153
Sale of folds specification	796	386
Government grants	46	77
Other income	2	-
Total	**123,055**	**253,346**

- Amounts stated in millions of Colombian pesos -

[1] *The decrease was mainly explained by the following recoveries: (i) contingent consideration of Espiritu Santo $35,801, (ii) environmental and social $24,287, and (iii) cost and expense recovery $20,728; Offset by an increase in: (iv) Guarantees $9,5666.*

The value of the effective recoveries amounts to $35,502 (2022: $55,551) and the non-effective ones $50,914 (2022: $99,321), disclosed in the statement of cash flow.

[2] *The decrease in compensation income was due to the fact that the previous year compensation was received for the Generation segment for loss of profits from Termosierra for $24,122 and compensation for damages arising from the beach incident for $26,592. While in 2023 the compensation for consequential damages was $10,829, and for loss of profits $364.*

[3] *Decreased investment property valuation revenue by $7,365.*

[4] *Revenue revenues decreased by $5,973 in the period.*

Note 32.

Income from sale of assets

The detail of the income from sale of assets is as follows:

Other income	2023	2022
Profit on sale of property, plant and equipment [1]	205	576
Profit on derecognition of rights-of-use assets [2]	1,513	37
Total	**1,718**	**613**

- Amounts stated in millions of Colombian pesos -

[1] *Profit on sale of property, plant and equipment of $205 (2022: $576) is non-cash and is disclosed as part of the income item for disposition of property, plant and equipment, rights of use, intangibles and investment properties of the statement of cash flows.*

[2] *Profit on derecognition and loss of rights of use of $1,513 (2022: $37) is non-cash and is disclosed as part of the income from retirement of property, plant and equipment, right-of-use assets, intangible assets and investment properties.*

Note 33.

Costs of services rendered

The detail of the costs of services rendered is as follows:

Costs of services rendered	2023	2022
Use of lines, networks and duct[1]	1,551,843	1,448,386
Stock market purchases [2]	1,494,044	881,496
Bulk purchases [3]	1,401,511	1,228,388
Personal services [4]	804,528	648,250
Depreciations [5] - [12]	758,121	527,995
Cost of distribution and/or commercialization of natural gas [6]	682,195	767,620
Maintenance and repair orders and contracts [7]	433,787	367,729
Maintenance and repair orders and contracts [8]	290,947	206,040
Consumption of direct inputs [9]	287,780	25,367
Licenses, contributions and royalties[10]	279,288	239,913
Insurance [11]	201,496	111,837
Materials and other operating costs	173,123	160,343
Generals	96,973	90,183

Cost per connection	75,567	66,946
Amortization rights-of- use assets [12]	62,458	56,415
Commercial and financial management of the service	56,799	36,050
Taxes and rates	52,889	44,876
Amortization [12]	44,523	46,927
Fee	34,637	44,884
Others cost	27,552	65,418
Liquefied natural gas	15,784	15,506
Public services	7,935	8,471
Leases	5,686	5,089
Costs associated with transactions in the wholesale market	4,827	3,707
Traded Goods	1,686	-
Gas compression	681	646
Total	**8,846,660**	**7,098,482**

- Amounts stated in millions of Colombian pesos -

[1] *The increase corresponds to higher network costs, mainly in the distribution and power generation segments due to the higher use and charge of the unregulated market.*

[2] *Increase due to greater purchases of energy on the stock exchange at a higher price, mainly in the distribution segment, through this mechanism the missing energy is purchased to cover the demand of the Regulated Market.*

[3] *The increase in costs for block purchases occurred in the energy distribution and marketing segment due to the entry into execution of new contracts and the variation in the IPP.*

[4] *The variation was explained by the salary increase, which is impacted by the CPI, and temporary vacancies hired.*

[5] *Increase in depreciation costs due to purchases of fixed assets and transfers to operations especially related to Hidroituango.*

[6] *Decrease explained by lower gas supply in the wholesale market.*

[7] *Orders and contracts for other services are mainly represented by installation and de-installation services in the distribution, gas and water segments.*

[8] *There were higher maintenance and repair costs, mainly in constructions and buildings, and land.*

[9] *Increase mainly due to the purchase of fuels and chemical products for the Power Generation business.*

[10] *Licenses, contributions and royalties increased especially due to the contributions of the environmental law associated with the power generation service, and Fazni.*

[11] *In this area, the costs related to comprehensive insurance increased mainly.*

[12] *Corresponds to non-effective costs.*

Note 34.

Administrative expenses

The detail of administrative expenses is as follows:

Administrative expenses	2023	2022
Employee expenses		
Wages and salaries [1]	370,983	310,649
Social security expenses [1]	119,026	101,915

Pension expenses [2]	30,455	21,789
Employee interest rate benefits	10,956	8,909
Other long-term benefits	8,270	2,865
Other post-employment benefit plans other than pensions2	2,318	1,384
Total personnel expenses	**542,008**	**447,511**
General expenses		
Provision for contingencies [2] - [3] - [10]	839,785	89,730
Taxes, contributions and rates [4]	187,395	142,455
Commissions, fees and services [5]	107,958	63,453
Intangibles [6]	98,479	76,408
Maintenance	72,886	64,807
General securities	42,514	33,169
Other general expenses	36,281	35,907
Amortization of intangibles [10]	34,865	25,318
Depreciation of property, plant and equipment [10]	28,982	28,679
Christmas lighting	23,850	18,699
Amortization rights-of-use assets [10]	22,072	21,501
Promotion and dissemination	15,903	12,506
Other miscellaneous provisions [2] - [7] - [10]	14,711	27,128
Publicity and advertising	14,648	8,252
Vigilance and security	10,479	8,888
Costs of proceedings	9,612	-
Cleaning services, coffee shop, restaurant and laundry service	6,295	5,332
Repairs	6,058	-
Provision for dismantling, removal and rehabilitation [2] - [8] - [10]	5,628	639
Public services	4,706	5,516
Studies and projects	4,319	11,476
Provision of the technical reserve of the Adapted Health Entity (EAS) [2] - [10]	1,509	752
Provision guarantees [2] - [9] - [10]	-	91,859
Total overhead	**1,588,935**	**772,474**
Total	**2,130,943**	**1,219,985**

- Amounts stated in millions of Colombian pesos -

[1] *This increase was mainly explained by the wage increase impacted by the CPI.*

[2] *Provisions include post-employment and long-term defined benefit plans in the statement of cash flows.*

[3] *Increase associated with the arbitration award against EPM for the penalty clauses of enforcement for non-compliance with milestones in the construction of the Ituango Hydroelectric Power Plant.*

[4] *Represented mainly by the tax on industry and commerce, the tax on financial movements and the inspection and auditing fee.*

[5] *The increase in commissions, fees and services was related to ongoing business development projects and substation activities.*

[6] *The increase in the category of intangibles was due to the fact that there was a greater implementation of projects compared to the previous year.*

[7] *Reduction mainly due to the procedure for environmental sanctions, the provision for the Ituango contingency and other miscellaneous provisons.*

[8] *This increase was explained by the recognition of the provision for the dismantling of assets associated with the entry into operation of the Ituango Hydroelectric Power Plant, and by the forced investment of the La Sierra, Porce II and Porce III Power Plants.*

[9] *Decrease corresponds to the update of the provision of guarantees on the occasion of the connection of the Ituango Hydroelectric Power Plant.*

[10] *Corresponds to non-actual expenditur.*

Note 35.

Other expenses

The detail of the other expenses is as follows:

Other expenses	2023	2022
Loss on disposals of assets [1] - [2]	14,195	10,305
Contributions in non-corporate entities [3]	21,436	15,679
Other ordinary expenses [4]	7,457	9,685
Arbitration awards and extrajudicial conciliations	3,490	2,680
Effective Interest Financing Services	1,708	1,479
Sentences	1,231	482
Loss on derecognition of intangibles [2]	3	-
Loss on sale of assets	283	136
Loss of rights-of-use [2]	149	-
Loss on withdrawal of inventories	133	114
Loss from changes in the fair value of investment properties	-	106
Total	**50,085**	**40,666**

- Amounts stated in millions of Colombian pesos -

[1] *The increase was explained by higher losses due to asset in the power marketing segments.*

[2] *Corresponds to non-cash expenses.*

[3] *Corresponds to the contributions made to the EPM Foundation.*

[4] *Other recurrent expenditure mainly comprises environmental management costs, fines and penalties.*

Note 36.

Finance income and expenses

36.1. Finance income

The detail of finance income is as follows:

Finance income	2023	2022
Interest Income:		
Gain from valuation of financial instruments at fair value [1] - [3]	361,900	70,922
Debtor and default interest [2]	143,301	119,100

Gain on rights in trust [1] - [4]	62,641	15,292
Bank deposits [2] - [5]	55,350	23,416
Other finance income [2]	6,092	4,645
Restricted Use Funds [2] - [6]	2,329	34,258
Total finance income	**631,613**	**267,633**

- Amounts stated in millions of Colombian pesos -

[1] *It is disclosed as part of the interest income and income item in the statement of cash flows.*

[2] *It is disclosed as part of the item Profit or loss on the valuation of financial instruments and hedging accounting in the statement of cash flows.*

[3] *Increase in the valuation of financial instruments measured at fair value, which was mainly due to the allocation of fixed-income securities, and due to the behavior of the market, which has presented significant valuations.*

[4] *The increase in the income on trust rights was explained by the behavior of the market, which has presented significant valuations and is thus reflected in the temporary investments of the portfolio.*

[5] *The variation was due to the fact that, compared to the previous year, there was a higher available balance in the deposits of financial institutions, in addition to the increase in bank rates.*

[6] *The variation was caused by the fact that there is a lower balance in restricted fixed-income securities*

36.2. Finance expenses

The detail of finance expenses is as follows:

Finance expenses	2023	2022
Interest expense:		
Interest for obligations under lease [1]	286,770	258,631
Other interest expense [1]	349	275
Total interest	**287,119**	**258,906**
Long-term external financing operations [1] - [2]	1,069,622	798,575
Financial instruments for hedging purposes [1] - [2]	770,852	328,189
Long-term internal financing operations [1] - [2]	238,602	172,769
Short-term internal financing operations [1] - [2]	20,606	1,749
Short-term external financing operations [1]	7,791	37,687
Total interest expense of other financial liabilities that are not measured at fair value through profit or loss [3]	-	4
Other financial costs		
Fees other than amounts included in determining the effective interest rate	631	1,086
Other financial expenses [3]	276,216	178,673
Total financial expenses	**2,671,439**	**1,777,638**

- Amounts stated in millions of Colombian pesos -

[1] *It is disclosed as part of the interest income and income item in the statement of cash flows.*

[2] *The increase in this item is due to financial expenses that ceased to be capitalized as of the entry into operation of the Ituango hydroelectric project in November 2022, to new disbursements in dollar currency, to the variable interest rate*

present in some credit agreements, such as the Term SOFR rate, which presented upward variations during 2023, starting at levels of 4.80%, reaching a yearly high of 5.50% and closing in December at 5.16%. Additionally, due to the reduction of exchange rate risk through contracted financial hedges, going from interest rates in dollars to Colombian pesos.

[3] For presentation purposes in the statement of cash flows: $171,464 (2022: $99,470) are disclosed under the heading of income from valuation of financial instruments and hedge accounting and $104,750 (2022: $79,211) is disclosed in the caption of provisions for tax obligations, insurance and reinsurance and financial updating.

Nota 37.

Net foreign exchange difference

The effect on foreign currency transactions is as follows:

Exchange difference, net	2023	2022
Exchange difference income		
Own position		
For goods and services and others	47,265	1,917
For liquidity	-	279,656
Tarde receivables	20,958	291,178
Provisions	32,459	-
Other exchange difference adjustments	-	11,490
Financing operations		
Gross revenue	2,509,706	4,672
Debt hedging	-	1,311,784
Total income from exchange difference	**2,610,388**	**1,900,697**
Exchange difference expense		
Own position		
For goods and services and others	9,570	46,507
For liquidity	58,814	129,429
Trade receivables	215,953	61,191
Provisions	-	28,397
Other adjustments for difference in exchange	12,919	-
Financing operations		
Gross expense	405,875	1,725,753
Debt Hedge	1,723,234	-
Total expense for exchange difference	**2,426,365**	**1,991,277**
Exchange difference, net	**184,023**	**(90,580)**

- Amounts stated in millions of Colombian pesos -

The accumulated net income due to exchange amounted to $184,023, the main income coming from long-term external financing operations for $2,471,647; offset by debt hedging operations that represented an

expense of $1,723,234 and a net expense per own position of $196.5754; The cumulative revaluation of 2023 was 20.54% (2022: 20.82% devaluation).

The rates used for currency conversion in the separate financial statements are:

Badge	Currency code	Direct conversion to USD as of December 31		Direct conversion to USD as of December 31		Average exchange rate	
		2023	2022	2023	2022	2023	2022
United States dollar	USD	1.00	1.00	3,822.05	4,810.20	3,948.21	4,788.49
Quetzal	GTQ	7.83	7.85	488.31	612.59	504.62	608.60
Mexican peso	MXN	16.92	19.49	225.90	246.84	229.94	244.21
Chilean peso	CLP	884.59	851.95	4.32	5.65	4.52	5.48
Euro	EUR	0.91	0.94	4,222.03	5,133.69	4,675.61	4,471.07
Pound	GBP	0.78	0.83	4,872.35	5,786.19	5,373.08	5,241.38
Swiss franc	CHF	0.84	0.93	4,541.14	5,199.09	4,809.48	4,456.27

Note 38.

Share of result of equity investments

The effect of participation in equity investments is as follows:

Participation in equity investments	2023	2022
Dividends and shares [1]	178,160	85,156
Impairment of investments in subsidiaries, associates and joint ventures [2]	-	(1,060,968)
Total	**178,160**	**(975,812)**

- Amounts stated in millions of Colombian pesos -

[1] *It corresponds to dividends caused by investments classified in financial instruments for $178,160 (2022: $85,156) See note 13. Other Financial Assets*

[2] *It corresponds to the impairment of investments in associates of UNE and Hidroituango (See note 9).*

Note 39.

Income tax

39.1. Tax provisions

The applicable and current tax provisions establish the following:

- The nominal income tax rate is 35%.
- Income tax from occasional income tax is taxed at the rate of 15%.
- On June 11, 2008, EPM and the Nation (through the Ministry of Mines and Energy) signed a legal stability contract for the Power Generation activity for a period of 20 years. Among the stabilized tax regulations, the following stand out: ordinary income tax rate, wealth tax, presumptive income, fiscal cost of fixed assets, deduction for depreciation, special deduction of 40% for investments in productive real fixed assets.
- Special treatments are considered to be those granted by the Colombian Holding Companies Regime (CHC), a special tax regime for national companies that have as one of their activities the holding of securities, investment or holding of shares or participations in Colombian or foreign companies or entities.

New regulations

Main modifications incorporated by Law 2277 of December 13, 2022, through which a tax reform for equality and social justice is adopted and other provisions are issued:

- In accordance with Law 2277 of 2022, for legal entities, the general Income Tax rate remained at 35% as of the taxable year 2023 and subsequent years.

For taxpayers whose main economic activity is the generation of electricity through water resources, a surcharge of 3% was established for taxable years 2023 to 2026, applicable to legal entities that obtain an income equal to or greater than 30,000 UVT in the taxable year, a threshold that will be calculated in aggregate for activities carried out by related persons according to the criteria provided for in article 260-1 of the Tax Statute. The regulation also establishes that the surcharge is subject to an advance of 100% of its value.

The Constitutional Court, through Ruling C-389 of 10/04/2023, declared the constitutionality of the surcharge, conditioning it to be applied exclusively to the activity of energy generation from water resources.

On the other hand, the same Law created a minimum income tax rate for tax residents in Colombia, which in the case of taxpayers whose financial statements are subject to consolidation, is called the Group Cleaned Tax Rate (TTDG), which cannot be less than 15% and if it is, the tax must be adjusted, following the formula enshrined in the regulation.

EPM's Power Generation activity, having a legal stability contract in force until June 11, 2028, will be able to continue with the application of the stabilized rules in the terms in which they were in 2008, the year in which the contract was signed, as long as the changes that have occurred after the signing of the contract are unfavorable to the interests of the aforementioned activity of the company generation. If, on the other hand, the amendments to the stabilized rules are favourable, the new rules may be applied. The concept of whether a change is favourable or unfavourable should be reviewed on a case-by-case basis in line with other rules.

- Article 259-1 was added to the Tax Statute, which establishes a limit to the benefits and tax incentives listed there, and which may not exceed 3% per year of ordinary liquid income before deducting the special deductions contemplated in the norm, due add to the value to be paid for income tax, the value resulting from applying the formula indicated in the same article.

- Profits from the sale of shares registered on a Colombian Stock Exchange, held by the same beneficial owner, do not constitute income or occasional gains when such sale does not exceed 3% of the outstanding shares of the respective company during the same taxable year.
- 100% of the industry and commerce tax, notices and boards paid, can be taken as deductible in the income tax.
- Article 12-1 of the Tax Statute, on effective place of administration, determines that foreign companies must comply with tax obligations in Colombia, if the necessary commercial and management decisions are made in the country to carry out the day-to-day activities of the company or entit.
- Article 256 of the Tax Statute determines that the discount on income tax for investments made in research, technological development or innovation is 30% of the value of the investment. At the same time, it establishes that the costs and expenses that generate the discount may not be capitalized or taken as a cost or deduction again by the same taxpayer.
- Regarding the presumptive income rate, Article 90 of Law 2010 of 2019 amended Article 188 of the Tax Statute to provide for a rate of zero percent (0%) as of the 2021 taxable year. On the other hand, article 191 of the same Statute includes within the exclusions of presumptive income residential public service companies.
- Article 689-3 of the Tax Statute establishes the benefit of audit for the taxable periods 2022 to 2026, to determine that the private settlement of income tax and complementary taxpayers will be final, if the increase in net income tax in relation to that of the immediately preceding year is 35% or 25% and that within six (6) or twelve (12) months following the filing of The tax return, respectively at the above percentages, has not been notified of a summons to correct or special requirement or special summons or provisional assessment.

  This audit benefit does not extend to VAT and Withholding Tax returns that coincide with the Income Tax Return period.

Other tax aspects

- In the Unique Registry of Final Beneficiaries RUB, which is part of the Single Tax Registry, RUT, contemplated in articles 631-5 and 631-6 of the Tax Statute and in DIAN Resolutions 000164 of 2021, 00037 and 001240 of 2022, natural persons who finally own or control, directly or indirectly, a legal person or other structure without legal personality must be reported.

  The regulation provides that decentralized entities in which the capital is 100% public, as is the case of EPM, are not obliged to identify, obtain, preserve, supply and update in the RUB the information dealt with in the associated regulations and that this exception does not extend to mixed economy companies.

- The general sales tax rate is 19%.

- The provision of domestic public services of energy, gas, water and sewerage are excluded from sales tax.

  The meters associated with the provision of these services are subject to sales tax, since they are not expressly excluded and this has been stated by the tax authority in its doctrine.

  For electric vehicles and their components, parts and accessories, as well as for components and spare parts of the gas vehicle plan, the fee is 5%.

  Article 192 of Law 1819 of 2016 provided that the VAT rate in contracts in which a public entity is a contracting party will be the one corresponding to the date of the resolution or award act, or signing of the respective contract, and will vary whenever the contract is modified or added with economic content.

  In accordance with the provisions of Article 258-1 of the Tax Statute, the VAT paid on the acquisition, import, construction and formation of real productive fixed assets, including the services necessary to put the asset in a condition of use, and assets acquired through leasing, may be taken as a deduction from income tax.

The Fourth Chamber of the Council of State, in Judgment 27421 of September 2023, clarified that the taxpayer may split this discount into several periods, insofar as the regulation did not provide for any prohibition in this regard.

- Dividends received by domestic companies that are income that do not constitute income or occasional gain are subject to a 10% withholding tax on income, which will be transferable and attributable to the resident natural person or investor resident abroad.

Through the Issuance of Law 1943 of 2018, the Colombian Holding Companies (CHC) regime was incorporated into the legal system, which can be used under certain requirements, national companies that have as one of their main activities the holding of securities, the investment or holding of shares or participations in Colombian and/or foreign companies or entities, and/or the management of such investments. The regulation provides, among other aspects, that dividends or participations distributed by entities not resident in Colombia to a CHC will be exempt from income tax and will be declared income exempt from capital.

Dividends distributed by CHCs to a resident natural person or to a resident legal entity paying income tax shall be taxed at the dividend income tax rate, in accordance with Articles 242 and 242-1 of the Tax Statute.

Dividends distributed by a CHC to a natural or legal person not resident in Colombia shall be understood as income from a foreign source in accordance with paragraph e) of article 25 of the same law.

Companies under the CHC income tax regime, including decentralized public entities, are not subject to withholding tax on dividends distributed by Colombian companies.

The undercapitalization rule of Article 118-1 of the Tax Statute limits the deductibility of interest paid when there is over-indebtedness, specifying that such limitations only apply with respect to debts contracted between economic related parties. For the purposes of

deducting interest, the taxpayer must be able to demonstrate to the DIAN, by means of certification from the resident or non-resident entity acting as creditor, that the credit or credits do not correspond to debt transactions with related entities through a guarantee, back-to-back, or any other transaction in which substantially such related entities act as creditors. It should be noted that this provision shall not apply to cases of financing of transport infrastructure or public service projects, provided that such projects are carried out by special purpose companies, entities or vehicles.

- -In relation to the transfer pricing regime, our tax system establishes that all taxpayers of income tax and complementary taxes, who carry out transactions with foreign economic affiliates or located in free zones, must comply with the arm's length principle at the time of such transactions; This implies that trades must be made at market prices. The same treatment must be given to any transaction with persons or entities located in Non-Cooperating Jurisdictions of Low or No Taxation and with entities subject to Preferential Tax Regimes, whether or not they are economically related.
- As of the 2015 taxable year, taxpayers of Income Tax and Complementary Taxes, subject to this tax with respect to their income from domestic and foreign sources, and their assets owned inside and outside the country, who have assets abroad of any nature, will be required to file the annual declaration of assets abroad, when the equity value of the foreign assets held on January 1 of each year is greater than two thousand (2,000) UVT.
- As for the Industry and Commerce tax, it is generated by the direct or indirect performance of an industrial, commercial or service activity in a municipal jurisdiction, either permanently or occasionally. The Framework Law that governs it is Law 14 of 1983, Law 56 of 1981 and Law 1819 of 2016. As it is a land tax, it is up to the municipal councils to issue agreements for its application. Its taxable base is determined on income and the tax is settled according to the rates established for each activity by the municipalities.

The transportation of Natural Gas is exempt from the Industry and Commerce Tax.

The taxable base of the industry and commerce tax in the distribution of natural gas is the gross margin of commercialization of the fuel, understood as the difference between the revenues from fixed charge, consumption and use of networks, and the costs of purchasing and transporting gas.

The activity of power generation is regulated by Law 56 of 1981 and is taxed in those municipalities where the generation plant is located. The rate corresponds to a few pesos for each kilowatt installed.

With regard to the contribution of public works contracts, it was established by Legislative Decrees of 1992 and 1993, and has been extended and amended by Laws and Regulatory Decrees. The last amendment was introduced by Law 1738 of December 18, 2014, which in Article 8 granted it permanent status. All natural or legal persons and public-private partnerships that sign public works contracts with public law entities or enter into contracts to add to the value of existing ones are liable for the contribution, who must pay the aforementioned contribution in favor of the Nation, department or municipality, depending on the level to which the contracting public entity belongs.

The current regulations have established the withholding mechanism by the contracting public entities, including EPM, deducting the value of the contribution from each account that it cancels to the contractors, including advances.

Through Agreement No. 093 of 2023 issued by the Council of the Science, Technology and Innovation District of Medellín, the rate for public works contracts or their additions was kept in force at 5%.

- A relevant aspect for the operations carried out by the companies of the EPM Group is related to stamps, which have been proliferating in recent years. Article 32 of Law 2155 of 2021 amended Article 14 of Law 2052 of 2020 and provided that for a maximum of two years from January 1, 2022, the national government must promote before the

Congress of the Republic modifications in the field of stamps that impose limits on the demand for this tax.

In terms of billing, EPM is an electronic biller for sales concepts other than residential public services, since the equivalent document is issued for them; Likewise, and as part of the billing system, the electronic payroll, the support document for purchases to non-billing and the POS document for sales of natural gas vehicles are issued. The most recent changes are found in DIAN Resolution 1092 of July 2022, which enshrines the limit of 5 UVT to issue POS documents as of February 1, 2023 and Decree 442 of March 2023 that amended Chapter 4 of Decree 1625 of 2016 Single Regulatory in Tax Matters, Highlighting the change for the support document for purchases to non-obligated to invoice, which must contain "the date of operation" and the "date of generation".

The Organization is advancing the implementations required by Article 23 of Resolution 165 of 2023 issued by the DIAN, which adopts, among others, Version 1.9 of the technical annex of Electronic Invoicing, for the generation and transmission of the electronic equivalent document and adjustment notes, bearing in mind the deadlines set by the tax authority to be met between February and May 2024 according to the established calendar for each type of taxpayer.The new subjects who choose to issue the electronic equivalent document and its adjustment notes after the established schedule must do so once they have completed the authorization procedure that is developed in the electronic invoicing computer service of the Special Administrative Unit of the Directorate of National Taxes and Customs -DIAN.

39.2. Reconciliation of the effective rate

The reconciliation between the applicable tax rate and the effective rate and composition of income tax expense for the periods 2023 and 2022 is as follows:

Income tax and complementaryos	2023	%	2022	%
Profit before taxes	4,960,299		3,913,975	
Nominal rental rate		35%		35%
Income tax nominal rate	1,736,105		1,369,891	
Effect of permanent tax differences:		-10%	(460,354)	-12%
Dividend income	(513,104)	3%	196,813	5%
Impairment of subsidiary investments	156,171	0%	371,339	9%
Tax-only income	-	0%	15,808	0%
Non-deductible provisions	15,228	5%	18,774	0%
Loss on derecognition of assets	258,468	0%	1,807	0%
Equity method	2,477	-11%	(560,327)	-14%
Untaxed dividends	(544,360)	-4%	(137,529)	-4%
Consequential damage compensation	(198,464)	0%	(7,996)	0%
Exempt income	-	0%	(97,581)	-2%
Special deduction of productive real fixed assets	(24,282)	-4%	(310,182)	-8%
Net result other permanent differences	(187,668)	0%	48,720	1%
Rate difference (constant/deferred tax) and stabilized/nominal rate	9,325	-1%	(75,615)	-2%
Deferred tax adjustment tax reform	(54,785)	0%	55,452	1%
Tax discounts	-	0%	(41,241)	-1%
Occasional gains	(4,492)	0%	50	0%
Income adjustments from prior years	42	1%	29,837	1%
Income tax at effective rate	31,252	**24%**	**878,019**	**22%**
Detail of current and deferred expenses				
Current tax	926,561	19%	898,614	23%
Deferred tax	268,457	5%	(20,595)	-1%
Income tax	1,195,018	**24%**	**878,019**	**22%**

- Amounts stated in millions of Colombian pesos -

The best indicator to measure the tax burden is the effective tax rate. This directly measures the total tax burden imposed by national regulations on companies, in proportion to the profits they obtain from their activities.

In accordance with the foregoing, to get from the theoretical tax to the effective tax that will affect the result of the company, starting from the nominal rate, tax purifications are carried out in accordance with current regulations and the result is obtained, the tax charged to the entity.

Thus, in the years 2023 and 2022 it can be observed in the purification that there are several items that reduce the tax calculated at the nominal rate and that cause this theoretical tax to be modified as a result of the

application of the tax provisions. Among the most important items in the reconciliation of the effective rate, which make it 11 points below the nominal rate, is the special deduction of productive real fixed assets by virtue of the application of the Legal Stability contract. Another important point in this purging is the treatment of exempt income granted to dividends received from foreign subsidiaries, an exemption allowed under the Colombian Holding Companies (CHC) Regime, and the purging of other permanent items such as the equity method.

As a relevant event during 2023 and that affects the variation in the effective rate compared to 2022, is the accounting recognition of provisions for litigation, some of which are not deductible for tax purposes in the taxable year of recognition; Impairment on investments was not recognized in 2023, varying significantly from 2022. In the year under review, there was a decrease in the execution of investments that grant the right to the special deduction of productive real fixed assets, a benefit stabilized by the Legal Stability Contract.

39.3. Income tax recognized on profit or loss

The most significant components of the income tax expense at the cut-off date are:

Income tax	2023	2022
Current income tax		
Expense (income) for current income tax	899,800	910,018
Adjustments recognized in the current period related to current income tax from prior periods	31,253	29,837
Tax benefits from tax losses, tax credits or temporary differences used in the period	(4,492)	(41,241)
Total current income tax	926,561	**898,614**
Deferred tax		
Net deferred tax expense (income) related to the origin and reversal of temporary differences	889,536	(455,955)
Net deferred tax expense (income) related to changes in tax rates or laws	-	55,452
Reclassification of deferred tax from other comprehensive income to profit for the year	(621,079)	379,908
Total deferred tax	268,457	**(20,595)**
Income tax	1,195,018	**878,019**

- Amounts stated in millions of Colombian pesos -

The rates used to determine the deferred tax are:

Year	2023	2024	2025
Income tax	35%	35%	35%
Occasional gains	15%	15%	15%

The deferred tax generated by the temporary differences associated with the Energy Generation business is determined by applying the stabilized rate of 33%. For land, the rate is 15%, corresponding to the current rate for occasional gains from the sale of assets owned for more than 2 years.

39.4. The value of the current income tax asset or liability is as follows:

Concept	2023	2022
Asset or liability for current income tax		
Total income tax liabilities	**56,027**	**56,027**
Income tax	56,027	56,027
Total income tax asset	**459,336**	**340,687**
Balances in favor for income tax	459,336	340,687
Total income tax asset	**403,309**	**284,660**

- Amounts stated in millions of Colombian pesos -

39.5. Income tax recognized in other comprehensive inco

El detalle del efecto impositivo correspondiente a cada componente del "otro resultado integral" del estado del resultado integral separado es el siguiente:

Other comprehensive income from the statement of comprehensive income	2023			2022		
	Gross	Tax effect	Net	Gross	Tax effect	Net
Items that will not be subsequently reclassified to profit or loss for the period						
New measurements of defined benefit plans	(99,482)	35,842	(63,640)	52,230	(20,040)	32,190
Equity investments measured at fair value through equity	(539,450)	82,660	(456,790)	(136,838)	(270,474)	(407,312)
Participation in the other comprehensive income of subsidiaries	(418,181)	-	(418,181)	(11,679)	(55,720)	(67,399)
Items that may be subsequently reclassified to profit or loss for the period						
Cash flow hedges	448,393	(154,005)	294,388	(596,324)	214,171	(382,153)
Hedges of net investments in foreign businesses	283,752	(97,328)	186,424	(216,145)	74,158	(141,987)
Participation in the other comprehensive income of subsidiaries	(1,301,858)	-	(1,301,858)	1,010,952	(309)	1,010,644
Total	**(1,626,826)**	**(132,831)**	**(1,759,657)**	**102,196**	**(58,214)**	**43,982**

- Amounts stated in millions of Colombian pesos -

39.6. Deferred tax

The detail of the deferred tax is as follows:

Deferred tax	2023	2022
Deferred tax asset	2,562,314	1,942,456
deferred tax liability	4,946,387	3,925,241
Total net deferred tax	(2,384,073)	**(1,982,785)**

- Amounts stated in millions of Colombian pesos -

39.6.1. Deferred tax asset

Deferred tax asset	Initial balance 2022	Net changes included in the 2022 profit or loss	Changes included in the OCI 2022	Final balance 2022	Net changes included in the 2023 profit or loss	Changes included in the OCI 2023	Final balance 2023
Assets	**405,641**	**159,590**	**-**	**565,231**	**203,015**	**-**	**768,246**
Property, plant and equipment	1	1	-	2	2,527	-	2,529
Intangibles	-	2,883	-	2,883	6,802	-	9,685
Right-of-use assets	205,297	52,998	-	258,295	48,757	-	307,052
Investments and derivative instruments	2,977	30,029	-	33,006	14,477	-	47,483
Trade receivables	197,183	60,837	-	258,020	129,947	-	387,967
Cash and cash equivalents	-	1,651	-	1,651	505	-	2,156
Other assets	183	11,191	-	11,374	-	-	11,374
Liabilities	**807,715**	**176,105**	**393,405**	**1,377,225**	**711,806**	**(294,963)**	**1,794,068**
Loans and borrowings	484,157	471,427	74,158	1,029,742	-	-	1,029,742
Trade payables	-	8,627	-	8,627	201	-	8,828
Employee benefits	26,112	123	(5,455)	20,780	764	16,660	38,204
Derivatives	56,617	(379,908)	324,702	1,411	621,079	(311,623)	310,867
Provisions	209,443	47,697	-	257,140	34,589	-	291,729
Other liabilities	31,386	28,139	-	59,525	55,173	-	114,698
Deferred tax asset	**1,213,356**	**335,695**	**393,405**	**1,942,456**	**914,821**	**(294,963)**	**2,562,314**

- Amounts stated in millions of Colombian pesos -

39.6.2. Deferred tax liabilit

Deferred tax liability	Initial balance 2022	Net changes included in the 2022 profit or loss	Changes included in the OCI 2022	Final balance 2022	Net changes included in the 2023 profit or loss	Changes included in the OCI 2023	Final balance 2023
Assets	**3,204,409**	**292,975**	**381,005**	**3,878,389**	**373,576**	**(240,278)**	**4,011,687**
Property, plant and equipment	2,955,604	196,206	-	3,151,810	240,488	-	3,392,298
intangibles	45,815	3,385	-	49,200	691	-	49,891
investment properties	14,982	11,792	-	26,774	2,029	-	28,803
Right-of-use assets	103,818	7,743	-	111,561	1,579	-	113,140
Investments and derivative instruments	53,221	(1)	381,005	434,225	124,933	(240,278)	318,880
Trade receivables	22,279	73,507	-	95,786	2,612	-	98,398
Cash and cash equivalents	1,651	-	-	1,651	-	-	1,651
Other assets	7,039	343	-	7,382	4,321	-	11,703
Liabilities	**10,141**	**22,125**	**14,586**	**46,852**	**806,625**	**78,146**	**931,623**
Loans and borrowings	4,186	(1)	-	4,185	744,705	97,328	846,218
Trade payables	1,173	200	-	1,373	7,247	-	8,620
Employee benefits	4,782	13,539	14,586	32,907	20,472	(19,182)	34,197
Provisions	-	493	-	493	34,201	-	34,694
Other liabilities	-	7,894	-	7,894	-	-	7,894
Deferred tax liability	**3,214,550**	**315,100**	**395,591**	**3,925,241**	**1,183,278**	**(162,132)**	**4,946,387**
Total deferred tax asset/liability	**2,001,194**	**(20,595)**	**2,186**	**1,982,785**	**268,457**	**132,831**	**2,384,073**

- Amounts stated in millions of Colombian pesos -

39.6.3. Temporary differences

Temporary differences associated with investments in subsidiaries, associates and joint ventures, for which deferred tax liabilities have not been recognized, amount to $8,316,353 (2022 $8,393,684).

In assets, the greatest impact on deferred tax is due to temporary differences in property, plant and equipment, which is generated by significant differences in accounting and tax costs, due to the recognition of the attributed cost, the adjustments for tax inflation and the application of different useful lives and depreciation methods; in accounts receivable in relation to the impairment of the portfolio due to the difference in the calculation between the accounting and tax standard, due to the effect of the valuation at amortized cost and the implicit interest recognized in the accounting standard. Another significant item

in the determination of temporary differences is the non-tax valuation of investments and financial instruments, which is recognized in Other Comprehensive Income (OCI).

In terms of liabilities, the items that have the greatest impact on the calculation of deferred tax are: accounting provisions, long-term employee benefits and the unrealized difference in credits and accounts payable. The revaluation effect experienced by the Colombian currency during the last taxable period close to 20.54%, generated a decrease in the deferred tax associated with the difference in unrealized exchange of the debt in foreign currency, which has no tax effects and will only be evidenced at the time of settlement or partial payment of the obligations. based on the difference in exchange actually made, in accordance with the provisions of Articles 269 and 288 of the Tax Statute. Another relevant point to consider is the deferred tax recognized in the profit or loss of the period in the concept of hedges, due to the reclassification of the difference in exchange and interest made from the other comprehensive income to the result of the period and in the debt, due to the reclassification made from the income statement to the other comprehensive income by the application of net foreign investment hedging accounting.

Temporary differences on which no deferred tax was generated were, inter alia, for investments in subsidiaries, associates and joint ventures, in accordance with paragraph 39 of IAS 12, with the exception of the value determined on retained earnings that may be received as taxable in the foreseeable future; Likewise, in the items that do not have future tax consequences, such as tax liabilities and financial returns generated in the assets of the pension plan, as these are exempt.

The approval of dividends after the date of presentation and before the financial statements were authorized for publication does not generate income tax consequences since the policy established for domestic subsidiaries is the distribution of untaxed profits and reserves. The tax effects that could be generated by the dividends decreed from foreign subsidiaries, with the entry into force of Article 69 of Law 1943/2018, will be considered exempt capital income in application of the Colombian Holding Companies (CHC) regime.

Note. 40

Disclosure of related parties

EPM is a decentralized municipal entity, whose sole owner is the Municipality of Medellín. The capital with which it was incorporated and operates, as well as its assets, is of a public nature. The Mayor of Medellín chairs the EPM Board of Directors.

EPM's related parties 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 employee.

The total value of transactions made by the company with its related parties during the corresponding period is presented below:

Transactions and balances with related parties	Revenue (1)	Costs/ Expenses (2)	Amounts receivable (3)	Amount payable	Guarantees and endorsements received
Subsidiaries of the EPM Group:					
December 31, 2023	593,597	632,331	447,751	113,798	-
December 31, 2022	534,143	422,580	1,046,093	97,460	-
Associates of the EPM Group:					
December 31, 2023	66,052	36,018	11,530	6,719	-
December 31, 2022	54,562	35,560	12,913	7,763	-
Key management employees:					
December 31, 2023	-	12,434	1,255	3,045	111
December 31, 2022	-	12,561	761	3,587	111
Other related parties:					
December 31, 2023	154,502	70,811	121,434	4,586	-
December 31, 2022	167,690	61,342	69,122	3,577	-

- Amounts stated in millions of Colombian pesos -

Transactions between EPM and its related parties are carried out under conditions equivalent to those that exist in transactions between independent parties, in terms of their object and conditions.

[1] *The detail of the income obtained by the company from its related parties is as follows:*

	Revenue	2023	2022
Subsidiaries	Sale of goods and services	442,143	395,765
	Interests	84,695	91,331
	Fee	1,749	7,429
	Others	65,010	39,618
Total Subsidiaries		**593,597**	**534,143**
Associates	Sale of goods and services	51,755	44,781
	Interests	5	53
	Others	14,292	9,728
Total Associates		**66,052**	**54,562**
Other related parties	Sale of goods and services	93,564	6,256
	Interests	331	67
	Fee	16	573
	Others	60,591	160,794
Total Other related parties		**154,502**	**167,690**

- Amounts stated in millions of Colombian pesos -

[2] *The detail of the costs and expenses incurred by the company with its related parties is as follows:*

	Costs and expenses	2023	2022
Subsidiaries	Acquisition of goods and services	623,717	417,200
	Fee	1,026	444
	Others	7,588	4,936
Total Subsidiaries		**632,331**	**422,580**
Associates	Acquisition of goods and services	33,531	33,443
	Fee	2,270	2,105
	Others	217	12
Total Associates		**36,018**	**35,560**
Other related parties	Acquisition of goods and services	1	678
	Interests	-	2
	Fee	1,416	1,522
	Others	69,394	59,140
Total Other related parties		**70,811**	**61,342**

- Amounts stated in millions of Colombian pesos -

[3] *The detail of the loans granted by the company to its related parties is as follows:*

	Borrowings granted	Original currency	Term	Nominal interest rate	2023			2022		
					Nominal amount	amortized cost value	Full Value	Nominal amount	amortized cost value	Full Value
HIDROSUR	Borrowing 1	CLP	8,5 years	7.20%	621,035	(358)	620,677	934,808	(448)	934,360
Caribemar de la Costa S.A.S. E.S.P.	Borrowing 1	COP	5 years	IBR 3M + 8.29%	450,000	18,989	468,989	-	-	-

- Amounts stated in millions of Colombian pesos -

Transactions between the company 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 related government entities

The total financial surpluses paid to the Municipality of Medellín as of December 2023 was $1,748,005 (2022 $1,850,776).

Remuneration of the Board of Directors and key personnel of the company:

Members of key management personnel at the company include:

Concept	2023	2022
Salaries and other short-term employee benefits	11,167	11,215
Other long-term employee benefits	1,267	1,346
Remuneration of key management personnel	**12,434**	**12,561**

- Amounts stated in millions of Colombian pesos -

The amounts disclosed are those recognized as a cost or expense during the reporting period for compensation of key management personnel.

Note 41.

Capital management

The company's capital includes borrowing through the capital market, commercial banking, development banking, export credit agency and multilateral banking, nationally and internationally.

The company manages its capital through planning and management processes of obtaining resources, one of the sources is through the national and international financial markets, to attend to strategic investments, and investment projects, accessing different alternatives that minimize the cost, that tend to the maintenance of adequate financial indicators and risk rating, as well as financial risk management. To this end, it has defined the following capital management policies and processes:

Financing management: financing management includes the execution of all long-term credit operations, in order to guarantee the timely availability of the resources required for the normal operation of the company and to materialize investment and growth decisions, seeking efficient financing costs, according to market conditions.

The Company has made no changes to its capital funding management objectives, policies and processes during the periods ended December 31, 2023 and December 31, 2022.

To cope with changes in economic conditions, the company implements proactive mechanisms to manage its indebtedness, enabling different financing alternatives to the extent feasible, so that, at the time of the need to execute a long-term credit operation, the source is available under competitive market conditions and in a timely manner.

Below are the securities that the company manages as capital:

Loans and borrowings	2023	2022
Commercial bank borrowings	4,499,154	2,664,683
Multilateral bank borrowings	776,947	1,163,243
Development bank borrowings	2,057,774	2,073,611
Bonds and titles issued	12,751,209	14,543,858
Total debt	**20,085,084**	**20,445,395**

- Amounts stated in millions of Colombian pesos -

Note 42.

Financial risk management objectives and policies

The Company is exposed to financial risk, which is defined as the possibility of the occurrence of an event that adversely affects financial results, including market risk, liquidity risk, credit risk and operational risk.

Market risk refers to changes or volatility in market variables that may result in economic losses. Market variables refer to exchange rates, interest rates, securities, commodities, among others; And its changes can impact, for example, financial statements, cash flow, financial indicators, contracts, project viability and investments.

Credit risk refers to the potential failure of third parties to meet payment obligations arising from contracts or financial transactions entered into.

Liquidity risk is the scarcity of funds and inability to obtain resources at the time they are required to meet contractual obligations and execute investment strategies. The scarcity of funds leads to the need to sell assets or contract financing operations under unfavorable market conditions.

Finally, operational risk, from a financial point of view, is defined as deficiencies or failures in processes, technology, infrastructure, human resources, or the occurrence of unforeseen external events.

The objective of EPM's Risk Vice Presidency is to lead the formulation, deployment and monitoring of the risk, hedge and security strategy in EPM and its Business Group, in order to achieve adequate protection and assurance of assets, resources, infrastructure and interests. The company's policy is to manage the risks that affect its activity and its environment,

adopting the best practices and international standards of Comprehensive Risk Management (IRM), as a way of facilitating the fulfillment of the purpose, strategy, objectives and business purposes, both statutory and legal. It has implemented a comprehensive risk management system and has a methodology for the identification, analysis, evaluation, control and monitoring of risks, including strategic, operational, financial, commercial and compliance risks, which allows reducing vulnerability, and proposing and implementing effective mechanisms for the proper development of business. processes, projects and contracts. As assessment criteria, there are tables for assessing the consequences of the materialization of risks and tables for probability, which are applied at the different levels of management defined in the methodological guide for comprehensive risk management.

The activity of monitoring and reviewing comprehensive risk management is aligned with the management follow-up process established in the company, in order to propose and implement improvement actions. The established monitoring and review scheme assesses, among others, the following aspects:

- The strategy for the implementation of comprehensive risk management.
- Changes in the internal and external context that involve making adjustments in the treatment of identified risks or that generate new risks.
- The variation of risks in terms of frequency, probability and consequence.
- Assessment criteria for the likelihood and consequence of risks.
- The implementation and effectiveness of treatment plans.

EPM manages the financial risks associated with market, liquidity and credit, quantifies their impact and implements strategies to mitigate them.

42.1. Market risk

42.1.1. Price risk

Market risk is the risk that the fair value of the future cash flows of a financial instrument may fluctuate due to changes in market prices. The Company has identified that financial instruments affected by market risk include:

- Cash and cash equivalents
  - Trusteeship
- Other financial assets:
  - Fixed income securities
  - Investments pledged or delivered as guarantee
  - Options
  - Swaps

The methods and assumptions used in the development of the sensitivity analysis consist of:

For cash and cash equivalents, fixed income securities and investments pledged or pledged as collateral, the methodology used to measure market risk is the Value at Risk, which indicates the value of the maximum loss that an investment portfolio could present due to changes in market variables, this is presented with a confidence level of 99% and with a time horizon of one day. To quantify the VaR, the volatility of the risk factors must be calculated, for which three methodologies are considered: historical volatility, EWMA volatility (exponential weighting) and Garch volatility. Subsequently, exposure and risk by risk factor are calculated and finally the consolidated maximum expected loss is obtained.

The sensitivity to market prices is detailed below:

	VaR Daily COP	VaR % COP
VaR Total Portfolio	233	0.127%

- Amounts stated in millions of Colombian pesos -

- For swaps, the sensitivity analyzes were carried out under the assumption of keeping the hedges contracted constant according to their indexation rates.

42.1.2. 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. EPM has identified that the financial instruments affected by interest rate risk include:

- Cash and cash equivalents
  - Trusteeship
- Other financial assets:
  - Fixed income securities
  - Investments pledged or delivered as guarantee
  - Options
- Loans and borrowings
- Commercial debts and other counts under charge

Concentration of interest rate risk arises when there are large individual exposures and when significant exposures are presented to counterparties whose probability of default is determined by factors such as economic sector, currency and credit ratings. Interest rate risk management seeks to conserve capital and maintain or increase profitability.

EPM has defined policies in terms of risks, in interest rates, through the identification of risks, the determination of the position of rates and the simulation of possible hedging strategies. This supports decision-making, which is aimed at maintaining the position or covering it, and then an analysis of the results of the executed strategies is carried out.

Interest Rate Sensitivity Analysis

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. All other variables being equal, EPM's pre-tax profit/loss and equity would be affected by changes in variable interest rates as follows:

	Increase/decrease in basis points	Exposed Value	Financial effect	
			In profit before taxes	In equity
2023				
Financial assets measured at fair value through profit or loss				
Investments at fair value through profit or loss	*100*	183,369,977	*1,076*	*861*
	(100)	183,369,977	*(1,076)*	*(861)*
Financial liabilities measured at amortized cost				
Loans and borrowings	*100*	7,196,775	*(71,968)*	*(57,574)*
	(100)	7,196,775	*71,968*	*57,574*
Financial liabilities measured at fair value through other comprehensive income				
Derivative instruments	*100*	104,381	*(59,153)*	*(47,323)*
	(100)	*104,381*	*59,153*	*47,323*
2022				
Financial assets measured at fair value through profit or loss				
Investments at fair value through profit or loss	*100*	645,135	*(2,355)*	*(1,884)*
	(100)	645,135	2,355	*1,884*
Financial liabilities measured at amortized cost				
Loans and borrowings	*100*	4,957,078	*(49,571)*	*(39,657)*
	(100)	4,957,078	*49,571*	*39,657*
Financial liabilities measured at fair value through other comprehensive income				
Derivative instruments	*100*	1,827,615	*(57,485)*	*(45,988)*
	(100)	*1,827,615*	*57,485*	*45,988*

- Amounts stated in millions of Colombian pesos -

For the year 2023, the simulation does not apply for assets measured in foreign currency because the only credit that exists is with Hidrosur and is contracted at a fixed rate.

The company considers the sensitivity analysis to be representative of interest rate risk exposure.

Exchange rate risk

Exchange 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 exchange rates.

EPM has identified that the financial instruments affected by the exchange rate risk include:

- Cash and cash equivalents
- Other financial assets:
  - Fixed income securities
  - Options
  - Swaps
- Loans and borrowings
- Comercial debts and other counts under charge
- Loans to related parties

Exposure to exchange rate risk is related, firstly, to financing activities in a currency other than the functional currency and to hedging operations contracted. The company manages its exchange rate risk through hedging operations in a medium-term horizon. It is EPM's policy not to close speculative hedging operations, so the conditions of the hedging derivative instruments replicate the conditions of the underlying in order to maximize the effectiveness of the hedging. EPM hedges its exposure to exchange rate fluctuations using different hedging instruments, including Swaps, Forwards and Options at different terms.

On July 1, 2021, the company approved the application of hedging accounting for net investments in foreign businesses. Hedging seeks to reduce the volatility of other comprehensive income by the method of participation of the effect by translation of financial statements. Net investment hedging applies to investments that the company has in foreign currency, in this case, investments in subsidiaries with functional dollar currency and has as a hedging instrument an equivalent amount of debt denominated in dollars. The company designated net investments in HET, PDG and MaxSeguros as a hedged item and an amount of debt denominated in USD equivalent to the value of the investment, in a total value of USD 282 million, as a hedging instrument.

Analysis of sensitivity to exchange rates

The following table indicates the sensitivity to a possible reasonable change in exchange rates per $100 pesos in the currency against the U.S. dollar without considering the effect of hedge accounting. The impact originates from the change in monetary and non-monetary assets. Holding all other variables constant, pre-tax profit/loss and equity of the company would be affected by changes in the exchange rates as follows:

	Increase/decrease in basis points	Exposed Value	Financial effect	
			In profit before taxes	In equity
2023				
Financial assets measured at fair value through profit or loss				
Cash and cash equivalents	*100*	517,706	*13,545*	*10,836*
	(100)	517,706	*(13,545)*	*(10,836)*
Financial assets measured at amortized cost				
Trade receivables in foreign currency	*100*	620,677	*1,199*	*959*
	(100)	620,677	*(1,199)*	*(959)*
Financial liabilities measured at amortized cost				
Loans and borrowings	*100*	11,503,284	*(300,972)*	*(240,777)*
	(100)	11,503,284	*300,972*	*240,777*
Financial liabilities measured at fair value through other comprehensive income				
Derivative instruments	*100*	8,328,247	*217,900*	*174,320*
	(100)	*8,328,247*	*(217,900)*	*(174,320)*

2022				
Financial assets measured at fair value through profit or loss				
Cash and cash equivalents	*100*	1,156,987	*24,053*	*19,242*
	(100)	1,156,987	*(24,053)*	*(19,242)*
Financial assets measured at amortized cost				
Trade receivables in foreign currency	*100*	934,360	*1,423*	*1,139*
	(100)	934,360	*(1,423)*	*(1,139)*
Financial liabilities measured at amortized cost				
Loans and borrowings	*100*	11,137,136	*(231,532)*	*(185,225)*
	(100)	11,137,136	*231,532*	*185,225*
Financial liabilities measured at fair value through other comprehensive income				
Derivative instruments	*100*	7,576,065	*157,500*	*126,000*
	(100)	*7,576,065*	*(157,500)*	*(126,000)*

- Amounts stated in millions of Colombian pesos -

The company considers that the sensitivity analysis is representative of the exchange rate risk exposure.

42.2. Credit Risk

Credit risk is the risk that one of the counterparties does not comply with the obligations derived from a financial instrument or purchase contract and this translates into a financial loss. EPM has identified that the financial instruments affected by credit risk include:

- Cash and cash equivalents
- Other financial assets:
  - Fixed income securities
  - Investments pledged or delivered as guarantee
  - Options
  - Swaps
- Comercial debts and other counts under charge

Credit risk management by type of financial instrument is detailed below:

- **Cash and cash equivalents, fixed-income securities and investments pledged or pledged as collateral:** At EPM, for credit risk management, quotas are assigned by issuer, counterparty and intermediary, taking into account the financial, risk and fundamental analysis of the entities, emphasizing the equity support of the shareholders. The methodology considers the characteristics of the investment portfolio and the applicable regulations. The concentration of credit risk is limited as it complies with the provisions of the business rules manual for treasury operations. The description of the factors that define the concentration of risk is detailed below:
  - The quotas are periodically updated based on the latest available financial statements of the entities analyzed.
  - Securities market intermediaries, other than supervised banking establishments, may act as counterparties to carry out transactions, but may not be considered as eligible issuers.
  - Banked brokerage firms, domiciled in Colombia, that have at least the second-best counterparty risk rating and that have a minimum technical equity of 35,000 SMLMV.

Finally, the steps taken to avoid the concentration of risk are aimed at establishing, analyzing, monitoring and controlling the quotas, for which it controls the current quotas and their occupancy status. On the other hand, the justifications related to the need to temporarily exceed the quotas are submitted for approval.

The investments referred to are made up of banking establishments that have the following risk rating, depending on the term of the investment, as follows:

- For investments with a term equal to or less than one (1) year, the banking establishment must have a current rating corresponding to the highest category for the short term in accordance with the scales used by the rating agencies that grant it and have at least the second-best current rating for the long term used by the respective companies.

- For investments with a term of more than one (1) year, the banking establishment must have the second-best rating in force for the long term according to the scale used by the rating companies and the maximum rating for the short term according to the scale used for this term.
- Options, forwards and swaps: EPM is exposed to the risk that a counterparty does not recognize the right and in order to mitigate it, the risk level of each of the entities with which it is estimated to carry out a transaction is previously evaluated.
- Trade receivables and other accounts receivable: EPM is exposed to the risk that users of household utilities will fall into arrears or non-payment of such services. Accounts receivable from household utility debtors are classified into two large groups: those arising from late payment and the other group corresponds to financing or payment agreements with clients that are carried out as a portfolio recovery strategy or to link new clients.

EPM evaluates the performance and value of accounts receivable at the end of each period to determine whether there is objective evidence that the portfolio is impaired and to identify its potential impact on future cash flows. The criteria used to determine that there is objective evidence of an impairment loss are:

- Failure of clients to pay two (2) or more collection accounts.
- It is known or there is evidence that the client enters into business restructuring processes or insolvency or liquidation.
- Social disturbances, public order or natural disasters occur, which according to experience are directly correlated with non-payment of collection accounts.

In order to avoid an excessive concentration of risk, EPM has developed and put into operation various strategies that allow it to mitigate the risk of non-payment of the portfolio, among which the following stand out:

- Persuasive collection by making phone calls and sending letters to clients with the support of specialized collection agencies.

- Segmentation of clients that allow identifying those with the highest 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.
- Offset of accounts receivable against accounts payable by EPM with clients-suppliers.
- When the previous strategies do not generate satisfactory results, we proceed with coercive collection actions through the suspension and cut-off of the service.
- If the previous strategies do not give satisfactory results, I proceed with the collection of the portfolio through the courts.

Likewise, it seeks to expand the product portfolio to clients in such a way that debt payment is facilitated, for example prepaid energy and water.

As mentioned, EPM makes payment or financing agreements, which are carried out as a portfolio recovery strategy or to link new clients. These give the right to fixed or determinable payments and are included in current assets, except for those maturing in more than 12 months from the balance sheet date, in which case they are classified in non-current assets.

In general terms, to guarantee client debts, blank promissory notes are constituted with letters of instructions, and when the value of the financing exceeds pre-established amounts in internal regulations, real or bank guarantees are requested, and in cases in which the client Whether it is a state entity, the resources that EPM, with prior agreement, collects from the client are pledged.

For the credit risk management of accounts receivable in its different stages (risk cycle), methodologies, procedures, guidelines and business rules are incorporated, complying with commercial and financial policies, in order to achieve a comprehensive and client sustainability.

To leverage the stages of the credit risk cycle, there are different statistical methodologies that allow obtaining an estimate of the future payment behavior of the accounts. These methodologies are described below:

Credit scoring

It makes it possible to obtain a client's risk profile based on their payment behavior and their own characteristics, which helps in segmenting the population, suggesting the optimal candidates for allocation offers of basic services and/or added value.

Approval scoring for value-added products

It profiles the clients that request a value-added credit, it assigns a level of risk to the applicants and, in accordance with the established business rules, they contribute to making the final decision of approval or denial.

Portfolio classification model

Assigns the probability of default in the short term (2 months) of the subscribed services, in order to design collection prioritization strategies.

Model for calculation of expected loss

It allows finding the probability that the subscribed services may default in a period of 12 months, which is used to calculate the expected loss of the accounts.

The company considers that the value that best represents its exposure to credit risk at the end of the period, without considering any collateral taken or other credit enhancements is:

Concept	2023	2022
Efectivo y equivalentes de efectivo	1,470,830	2,084,449
Investments in debt instruments	78,816	296,808
Investments in equity instruments	1,522,014	2,059,062
Trade receivable *	(652,444)	(529,131)
Other accounts receivable *	(221,909)	(208,377)
Maximum exposure to credit risk	**2,197,308**	**3,702,811**

- Amounts stated in millions of Colombian pesos -

* It corresponds to impairment of trade receivable.

42.3. Liquidity risk

It refers to the possibility that there are insufficient resources for the timely payment of the obligations and commitments of the entity, and that for this reason EPM is forced to obtain liquidity in the market or to liquidate investments in an onerous manner. It is also understood as the possibility of not finding buyers for the portfolio titles.

EPM has identified that the financial instruments affected by liquidity risk include:

- Cash and cash equivalents
- Other financial assts:
  - Fixed income securities
  - Investments pledged or delivered as guarantee
  - Swaps
- Commercial debts and other counts under charge

To control liquidity risk, temporary comparisons of figures, reference indicators and liquidity levels are made at different time horizons. Based on said analysis, investment strategies are developed that do not affect the liquidity of the Companies considering the cash budget and market risk analysis to consider the diversification of the sources of funds, the ability to sell assets and the creation of contingency plans.

In general, the main aspects considered in the analysis are:

- Liquidity of the titles: the characteristics of the issuer, amount of the issuance and trading volume are analyzed.
- Market liquidity: the general behavior of the market is analyzed, and rate forecasts are made to infer its future behavior.

- Portfolio liquidity: cash flows are coordinated in order to determine investment strategies in accordance with future liquidity requirements, and diversification is sought to avoid concentration of titles by issuer, rates, and/or term.

The following table shows the remaining contractual maturity analysis for liabilities and non-derivative financial assets:

	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
2023							
Non-derivative financial liabilities variable interest rate	10.70%	1,420,766	70,401	2,411,357	1,427,107	1,857,104	7,186,735
Non-derivative financial liabilities fixed interest rate	6.23%	1,210,676	243,093	195,631	4,361,150	6,719,604	12,730,154
Non-derivative financial assets	16.68%	1,438,141	75,779	35,031	5,663	5,288	1,559,902
Non-derivative financial assets - portfolio	13.54%	285,837	423,275	361,013	310,725	620,579	2,001,428
Total		**4,355,420**	**812,547**	**3,003,032**	**6,104,645**	**9,202,574**	**23,478,218**
2022							
Non-derivative financial liabilities variable interest rate	12.65%	525,831	289,354	85,603	1,911,383	2,478,417	5,290,588
Non-derivative financial liabilities fixed interest rate	6.04%	487,717	1,242,942	275,358	227,896	12,722,352	14,956,265
Non-derivative financial assets	11.07%	1,343,602	28,312	22,029			1,393,943
Non-derivative financial assets - portfolio	9.88%	210,132	323,888	474,636	298,154	476,606	1,783,417
Total		**2,567,282**	**1,884,495**	**857,627**	**2,437,434**	**15,677,375**	**23,424,213**

- Amounts stated in millions of Colombian pesos -

The values included in the above tables for non-derivative financial assets and liabilities may change due to fluctuations in the variable interest rate in relation to the estimated interest rate at the end of the reporting period. The company considers that cash flows cannot occur earlier than previously indicated.

The following table shows the contractual maturity analysis of remaining derivative financial liabilities:

	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
2023						
Options						
Contracts swap	958,634	951,274	1,042,502	920,561	1,626,377	5,499,349
Total	958,634	951,274	1,042,502	920,561	1,626,377	5,499,349
2022						
Options						
Contracts swap	598,093	647,106	644,870	651,619	473,684	3,015,372
Total	598,093	647,106	644,870	651,619	473,684	3,015,372

- Amounts stated in millions of Colombian pesos -

The main method for measuring and monitoring liquidity is the cash flow forecast, which is carried out at EPM and is consolidated in the cash budget. Derived from this, a daily monitoring of its cash position is carried out and projections are made continuously to:

- Monitor liquidity needs related to operating and investment activities associated with the acquisition and disposal of long-term assets.
- Pay, prepay, refinance and/or obtain new credits, according to EPM's cash flow generation capacity.

These projections consider EPM's debt financing plans, compliance with ratios, compliance with organizational objectives and applicable regulations.

Note 43.

Fair value measurement on a recurring and non-recurring basis

The methodology established in IFRS 13 - Fair Value Measurement specifies a hierarchy in valuation techniques based on whether the variables used to determine fair value are observable or unobservable. The company determines fair value on a recurring and non-recurring basis, as well as for disclosure purposes:

- Based on quoted prices in active markets for identical assets or liabilities that the company can access on the measurement date (level 1).
- Based on valuation techniques commonly used by market participants that use variables other than quoted prices that are directly or indirectly observable for assets or liabilities (level 2).
- Based on internal cash flow discount valuation techniques or other valuation models, using variables estimated by the company that are not observable for the asset or liability, in the absence of observed variables in the market (level 3). When developing unobservable input data, the Company may start with its first party data, but will adjust that data if the available information reasonably indicates that other market participants would use different data or there is something particular about the entity that is not available to other market participants. The Company shall take into account all information on market participants' assumptions that is reasonably available.

Valuation techniques and variables used by the company in the measurement of fair value for recognition and disclosure:

Cash and cash equivalents: include cash on hand and in banks and highly liquid investments, easily convertible into a determined amount of cash and subject to an insignificant risk of changes in value, with a maturity of three months or less from the date of its acquisition. EPM uses the market approach as a valuation technique for this item; these items are classified at level 1 of the fair value hierarchy.

Investments at fair value through profit or loss and through equity: includes investments made to optimize excess liquidity, that is, all those resources that are not immediately allocated to the development of the activities that constitute the corporate purpose of the company. EPM uses the market approach as a valuation technique; these items are classified at level 1 of the fair value hierarch.

Equity investments: corresponds to the resources placed in participatory titles of national or foreign entities, represented in shares or shares of social interest. The methodologies used are: the market price for those listed on the stock market (level 1) and the discount of cash flows for the rest (level 3).

Fiduciary rights: corresponds to the rights originated by virtue of the execution of commercial trust contracts. EPM uses the market approach as a valuation technique, these items are classified at level 1.

Derivative instruments: EPM uses derivative financial instruments, such as forward contracts ("Forward"), futures contracts, financial swaps ("Swaps") and options, to hedge various financial risks, mainly interest rate risk, foreign exchange and price of basic products (" commodities"). Such derivative financial instruments are initially recognized at their fair values on the date the derivative contract is entered into and are subsequently remeasured at their fair value. EPM uses discounted cash flow as a valuation technique for swaps, in an income approach. The variables used are: Interest rate swap curve for rates denominated in dollars, to discount

flows in dollars; and Foreign interest rate swap curve for rates denominated in pesos, to discount flows in pesos. These items are classified in level 2 of the fair value hierarchy.

With regard to Zero Cost Collar options, the Black and Scholes model is used as a reference since it analyzes the value of options based on the price of the asset underlying the option, which follows a continuous stochastic process of Gauss-Wiener evolution, with constant mean and instantaneous variance. These items are classified in level 2 of the fair value hierarchy.

Additionally, for the put option of the climate derivative, the Monte Carlo method is used as a valuation technique, which simulates the non-financial variable (rainfall measured at two meteorological stations located in the basins of two of the most important rivers in EPM's area of influence: Río Abajo and Riogrande I) in a series of situations or possible scenarios for a given event, including the limits and present value of the flows defined in the contract. This item is classified in Level 3 of the fair value hierarchy because variables not obtained from observable market data are used.

Investment properties: are properties (land or buildings, considered in whole or in part, or both) that are held (by EPM in its own name or as part of a financial lease) to obtain rents, capital gains or both, in place of stop:

- Its use in the production or supply of goods or services, or for administrative purposes; either
- Its sale in the ordinary course of operations.

EPM 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 comparing transactions, supply and demand, and appraisals of similar or comparable properties, prior time, conformation, and location adjustments. Within the cost approach, the residual method is used, which is applied only to buildings and is based on the determination of the updated construction cost, less depreciation due to age and state of conservation. Both items are classified in level 3 of the fair value hierarchy.

Contingent considerations: arising from business combinations in the acquisitions of the subsidiaries Espíritu Santo Energy S. de R.L. and Empresas Varias de Medellín S.A E.S.P. – EMVARIAS, the discounting of payment flows is considered by applying the discount rates: Libor Rate and TES Rate, respectively. These items are classified at level 3 of the fair value hierarchy.

Other accounts payable: corresponds to the premium payable for a weather derivative whose valuation technique is the average of expected future flows, discounted at a risk-free rate plus a spread that contemplates the possibility of default (own credit risk). This item is classified in Level 3 of the fair value hierarchy because variables not obtained from observable data in the market are used, such as own credit risk.

The following table shows for each of the levels of the fair value hierarchy, the company's assets and liabilities measured at fair value on a recurring basis as of December 31, 2023 and December 2022:

2023	Level 1	Level 2	Level 3	Total
Assets				
Cash and cash equivalents	129,631	-	-	129,631
Total traded or designated at fair value	129,631	-	-	129,631
Other investments in debt securities				
Fixed Income Securities	78,008	-	-	78,008
Variable Income Securities	464,642	-	-	464,642
Investments pledged or delivered as guarantee	808	-	-	808
Total other investments at fair value (See Note 11)	543,458	-	-	543,458
Other equity investments				
Equity securities	1,515,281		6,733	1,522,014
Total other equity investments (See Note 11)	1,515,281	-	6,733	1,522,014
Fiduciary rights				
Trust in administration	314,336	-	-	314,856
Total trust rights (See Note 11)	314,336	-	-	314,856
Derivatives				

Futures Contracts	-	88	-	88
Put Options	-	-	31,453	31,453
Total derivatives (See Note 11)	-	88	31,453	31,541
Other accounts receivable				
Other accounts receivable	-	-	49,338	49,338
Total trade receivables (See Note 10)			49,338	49,338
investment properties				
Urban and rural land	-	-	139,923	139,923
buildings and houses	-	-	39,226	39,226
Total investment properties	-	-	179,149	179,149
Liabilities				
Derivatives				
Futures Contracts	-	23	-	23
Swaps	-	906,328	-	906,328
Total derivative liabilities	-	906,351	-	906,351
Contingent consideration				
Provisions-business combination	-	-	141,143	141,143
Total contingent consideration (See Note 14)	-	-	141,143	141,143
Total	**2,502,706**	**(906,263)**	**125,530**	**1,721,973**
- Amounts stated in millions of Colombian pesos -	**145%**	**-53%**	**7%**	

The carrying value and estimated fair value of the company's assets and liabilities that are not recognized at fair value in the separate statement of financial position but require disclosure at fair value; as of December 31, 2023 and December 2022 is as follows:

Concept	2023			2022	
	Carrying amount	Estimated fair value		Estimated fair value	
		Level 2	Total	Level 2	Total
Assets					
Public service trade receivable	4,564,197	4,549,694	4,549,694	3,298,042	3,298,042
Employee loans	187,694	169,094	169,094	138,844	138,844
Related parties	1,089,667	1,089,667	1,089,667	934,362	934,362
Other accounts receivable	653,270	647,342	646,907	315,555	315,555
Total assets	6,494,826	6,455,797	6,455,797	4,686,803	4,686,803
Liabilities					
Commercial bank borrowings	4,499,154	4,430,850	4,430,850	2,674,913	2,674,913
Multilateral bank borrowings	776,947	509,682	509,682	991,796	991,796
Development bank borrowings	2,057,774	2,020,584	2,020,584	1,954,742	1,954,742
Bonds and titles issued	12,751,209	11,250,144	11,250,144	11,672,302	11,672,302
Total liabilities	20,085,084	18,211,259	18,211,259	17,293,753	17,293,753
Total	**(13,590,258)**	**(11,755,462)**	**(11,755,462)**	**(12,606,950)**	**(12,606,950)**
- Amounts stated in millions of Colombian pesos -		**100%**		**100%**	

Note 44.

Service concession arrangement

As of December 31, 2023, the company manages as operator various concessions that contain provisions for the construction, operation and maintenance of facilities, as well as the provision of public services such as water supply and wastewater collection and treatment, in accordance with applicable regulations.

The remaining period of the concessions where the company acts as operator is detailed below:

Company/agreement	No Contrat	Subscription date	Activity	Country	Concession period	Initial Remaining Period
Empresas públicas de Medellín - Municipio de Caldas	1401288	28/08/1997	The Municipality is committed to putting provision and facilitate the use of networks and other infrastructure for provision of aqueduct services and sewage.	Colombia	30 years (extendable)	4 years
Empresas públicas de Medellín - Municipio de Sabaneta	1/DJ/-7885/19	3/10/1984	The Municipality is committed to putting provision and facilitate the use of networks and other infrastructure for provision of aqueduct services and sewage.	Colombia	10 years (extendable)	1 year
Empresas públicas de Medellín - Municipio de La Estrella	1/DJ/-7835/17	10/09/1984	Execution of works and provision of water supply services drinking and sewage.	Colombia	10 years (extendable)	1 year
Empresas públicas de Medellín - Municipio de Envigado	1/DJ/-5941/30 1/DJ/-7982/5 (vence en el 2025)	03/08/1977 27/02/1985	Provision of aqueduct service and sewerage and construction of works for the provision of Aqueduct and Sewer service.	Colombia	10 years (extendable)	4 years
Empresas públicas de Medellín - Municipio de Itagüí	1/DJ/-6199/10	06/09/1978	Execution of works and provision of water supply services drinking and sewage.	Colombia	Indefinite Term	
Empresas públicas de Medellín - Municipio de Bello	1/DJ/-7586/25	28/02/1984	Execution of works and provision of water and sewage service.	Colombia	10 years (extendable)	1 year

Empresas públicas de Medellín - Municipio de Copacabana	1/DJ-9994/9	31/10/1990	Execution of works for the Potable water supply, sewerage and provision of such services.	Colombia	20 years (extendable)	7 years
Empresas públicas de Medellín - Municipio de Barbosa	1401287	2/10/1997	The Municipality is committed to putting provision and facilitate the use of networks and other infrastructure for provision of aqueduct services and sewage.	Colombia	30 years (extendable)	4 years

As of the cut-off date, income and costs incurred for construction services exchanged for a financial asset or an intangible asset have not been recognized.

Service concession arrangement

The concession agreements between EPM and the Municipalities establish the conditions under which the aqueduct and sewage networks are managed, operated and maintained for the provision of drinking water and wastewater sanitation services to their inhabitants, under the terms and conditions and rates established by the Drinking Water and Basic Sanitation Regulation Commission – CRA –.

The user is charged via a rate according to the intervention of replacement, expansion or interventions in the networks with the execution of projects under construction (Constructions in progress). Following the parameters and conditions established by the C.R.A (Water Regulation Commission).

The agreements indicate the following rights and obligations for EPM as an operator in the service concession agreement:

- Right to receive from the Municipality all of the aqueduct and sewage networks and to have exclusivity as operator of the system.
- Obligation to make exclusive use of the aqueduct and sewage networks for the purposes for which they are intended, maintain them and return them in the conditions of use in which they were received.
- Some concession agreements have the option of being automatically renewed for equal periods unless one of the parties expresses the intention of not continuing with it.
- The concession agreements do not establish the obligation to construct elements of property, plant and equipment.

Upon termination of the concession, EPM must return the aqueduct and sewage networks without any compensation to the Municipalities. There have been no changes to the terms of the concession agreement during the period.

The intangible asset model is applicable to these agreements.

See note 7 | Goodwill and Other Intangible Assets

Note 45.

Events after the reporting period

- On January 31, 2024, EPM filed an extraordinary appeal before the Council of State for annulment of the award rendered by the Arbitral Tribunal promoted by the company Hidroeléctrica Ituango against EPM. The appeal is based on two grounds contemplated in Law 1523 of 2012, that is, having ruled in conscience or equity and the award containing contradictory aspects. In addition, a jurisprudential ground was invoked, namely that the arbitration process did not take into account the preliminary interpretation of the rules issued by the Andean Community of Nations applicable to the case.

  Based on Law 1523 of 2012, EPM also requested the suspension of the economic effects of the award until the extraordinary appeal for annulment is resolved on the merits.

  The annulment appeal was filed with the Council of State on February 26, 2024, after it had been transferred to the company Hidroeléctrica Ituango. On March 8, the appeal was distributed in the Third Section of the Council of State.

- On February 8, 2024, XM delivered $648,856 corresponding to Ituango's reliability charge (including interest), which, in accordance with the provisions of CREG resolution 194 of 2020, had to be administered in a trust until the plant completed the net effective capacity of the first stage, a milestone that was met in October 2023 when units 3 and 4 came into operation.
- On February 27, 2024, EPM's Board of Directors approved a capitalization, a capitalizable loan or a combination of both alternatives to Empresas Varias de Medellín S.A. E.S.P. for up to $337,000, with partial disbursements, during the years 2024 and 2025. It is estimated that the amount to be disbursed in 2024 will be $228,000.
- On February 27, 2024, EPM's Board of Directors approved granting a loan to Caribemar de la Costa S.A.S. E.S.P. AFINIA for $755,000, with a term of 5 years and with an interest rate in accordance with market conditions at the time of its completion; this credit was contemplated in EPM's 2024 budget and current business plan.
- On March 13, a request for a 120-day suspension of the request for voluntary retirement filed on August 1, 2023, was filed with the Superintendence of Health, with the purpose of analyzing the different options and making a decision on the future of the Adapted Health Entity.

After the date of submission of the separate financial statements and prior to the date of authorization of their publication, no other material facts involving adjustments to the figures were presented.

Back to content

Sustainability Report

2023

EPM's certification

Grupo·epm

CERTIFICATION OF FINANCIAL STATEMENTS

Medellín, March 20, 2024

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 Separate Statements of Empresas Públicas de Medellín E.S.P. at December 31, 2023 and 2022, were faithfully taken from the accounting books.

The accounting prepared in accordance with the Accounting and Financial Reporting Standards accepted in Colombia (NCIF, for the Spanish original) and the disclosures faithfully reflect the financial, economic, social and environmental situation of Empresas Públicas de Medellín E.S.P. We certify that the assertions contained in the financial statements were verified, particularly those related to:

The facts, transactions and operations were recognized and carried out by Empresas Públicas de Medellín E.S.P. during the period from January 1 to December 31, 2023.

That economic events are disclosed in accordance with accounting and financial reporting standards accepted in Colombia (NCIF, for the Spanish original) adopted by the Colombian General Accounting Office through Resolution 037/2017, Resolution 056/2020, Resolution 035 and 0197/2021 and Resolution 267 /2022. These accounting and financial reporting standards are based on the International Financial Reporting Standards issued by the International Accounting Standards Board (IASB), as well as interpretations issued by the Interpretations Committee, adopted in Colombia through Decree 2420/2015 and its amendments.

The total value of the assets, liabilities, equity, revenues, expenses and costs were disclosed in the Separate Financial Statements of Empresas Públicas de Medellín E.S.P. at December 31, 2023.

The assets represent existing rights and the liabilities represent obligations on the account of Empresas Públicas de Medellín E.S.P. at December 31, 2023.

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

John Alberto Maya Salazar
Legal Representative

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

estamos ahí.
Empresas Públicas de Medellín E.S.P.
Carrera 58 N° 42-125
Conmutador: 3808080 - Fax: 3569111
Medellín-Colombia
www.epm.com.co

Deloitte.

Deloitte & Touche S.A.S.
Nit. 860.005.813-4
Calle 16 Sur No. 43A-49
Pisos 4 y 9
Ed. Corficolombiana
Medellín
Colombia

Tel: +57 (604) 604 1899
www.deloitte.com/co

INDEPENDENT AUDITOR'S REPORT

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

REPORT ON THE AUDIT OF THE SEPARATE FINANCIAL STATEMENTS

Opinion

We have audited the separate financial statements of Empresas Públicas de Medellín E.S.P. (Hereinafter "the Entity") which include the separate statement of financial position as of December 31, 2023, and the Statements of Profit or Loss and Other Comprehensive Income, statement of changes in equity and statement of cash flows for the year then ended on that date, and notes to the financial statements, including a summary of material accounting policies.

In our opinion, the accompanying separate financial statements, taken from the accounting books, reasonably present in all material respects, the Entity's financial position as of December 31, 2023, the result of its operations and its cash flows for the year ended on that date, in accordance with the Accounting and Financial Reporting accepted in Colombia adopted by the General Accounting Office of the Nation through Resolution 037 of 2017, and its subsequent updates.

Basis for Opinion

We conducted our audit in accordance with International Auditing Standards accepted in Colombia. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Entity in accordance with the ethical requirements that are relevant to our audit of the financial statements in Colombia, and we have fulfilled our other responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis Paragraph

Without modifying our opinion, we draw attention to the matters discussed in Note 4.1 to the Separate Financial Statements regarding the Ituango Hydroelectric Project contingency and its impact on the financial statements. The Entity continues to monitor the progress of the project and is taking all appropriate measures and actions to identify and recognize the accounting impact of this contingency and the actions of the regulatory and environmental authorities. The outcome of the impact on the Entity's financial position, results of operations and cash flows is uncertain and will depend on the further development of these events until the completion of the project.

Deloitte se refiere a una o más entidades de Deloitte Touche Tohmatsu Limited ("DTTL"), su red global de firmas miembro y sus sociedades afiliadas a una firma miembro (en adelante "Entidades Relacionadas") (colectivamente, la "organización Deloitte"). DTTL (también denominada como "Deloitte Global") así como cada una de sus firmas miembro y sus Entidades Relacionadas son entidades legalmente separadas e independientes, que no pueden obligarse ni vincularse entre sí con respecto a terceros. DTTL y cada firma miembro de DTTL y su Entidad Relacionada es responsable únicamente de sus propios actos y omisiones, y no de los de las demás. DTTL no provee servicios a clientes. Consulte www.deloitte.com/co/conozcanos para obtener más información.

Deloitte.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of the greatest importance in our audit of the separate financial statements as of December 31, 2023. These matters were covered in the context of our audit of the financial statements as a whole, and in forming our opinion on them, and we do not express a separate opinion on these matters. We have identified the issues described below as the key audit issues to be reported in our report.

Impairment Assessment of Long-Lived Assets – Cash Generating Unit (CGU) Power Generation

As described in Note 11.2 of the separate financial statements, the Entity includes the Cash Generating Unit (CGU) Power Generation EPM.

The Entity used the discounted cash flow model to estimate the value in use of the assets associated with the Power Generation CGU, which required Management to make significant estimates and assumptions related mainly to, (1) the historical behavior and growth rates of certain base variables for the projection; (2) the discount rates applied and macroeconomic variables used; (3) the projection period and (4) the growth gradient in perpetuity.

The main considerations for selecting the impairment assessment of the Power Generation CGU as a key audit matter were: 1) the use of important judgments by the Administration to calculate the use value of the CGU and 2) the progress of the Ituango Hydroelectric project, included within the Power Generation CGU. where there is an impact on the projection of cash flows.

Procedures developed by the audit team

Our audit procedures related to the impairment assessment of long-lived assets – Cash Generating Unit (CGU) Power Generation included the following, but were not limited to:

- We evaluate the design of the controls related to the evaluation of the value of use of the CGU by the Administration.
- We evaluated whether the assumptions used by the Administration were reasonable, considering (i) the current and past performance of the Power Generation CGU, (ii) consistency with external market and industry data.
- We involved specialists with knowledge and experience in valuation who assisted us in: (i) the evaluation of the methodology used to estimate the value in use and the development of independent calculations, and (ii) the evaluation of the following input data and relevant assumptions used in the model: (1) the historical behavior and growth rates of certain base variables for the projection; (2) the discount rates applied and macroeconomic variables used; (3) the projection period and (4) the growth gradient in perpetuity.

Other Information

Management is responsible for the other information. The other information comprises the information included in the management report but does not include the separate financial statements and our accompanying auditors' report.

Deloitte.

Our opinion on the separate financial statements does not cover the other information and we do not express any form of conclusion that provides a reasonable degree of assurance on the other information.

In connection with our audit of the separate financial statements, our responsibility is to read the other information, and in doing so consider whether the other information contained therein is materially inconsistent with the separate financial statements or our knowledge obtained during the audit or appears to contain a material misstatement. If, based on the work we have performed, we conclude that there is material misstatement of the other information, we would be required to report that fact. We have nothing to report on this matter.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

The Administration is responsible for the preparation and correct presentation of these separate financial statements in accordance with the Accounting and Financial Information Standards Accepted in Colombia adopted by the General Accounting Office of the Nation through Resolution 037 of 2017, and its subsequent updates. , and for the internal control that management considers relevant for the preparation and correct presentation of the financial statements free of material misstatements, whether due to fraud or error.

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

Those charged with governance are responsible for overseeing the Entity's financial reporting process.

Independent Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the separate 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 the International Auditing Standards accepted in Colombia 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 financial statements.

As part of an audit in accordance with International Standards on Auditing accepted in Colombia, the auditor exercises professional judgment and maintains professional skepticism throughout the audit; also:

- We identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error; to design and perform audit procedures responsive to those risks; and to obtain audit evidence that is sufficient and appropriate to provide a basis for the independent auditor's 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.

Deloitte.

- We 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.

- We evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- We conclude on the appropriateness of 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 Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify the opinion. Our conclusions are based on the audit evidence obtained up to the date of the auditor's report. However, future events or conditions may cause an entity to cease to continue as a going concern.

- We evaluate the overall presentation, structure and content of the separate financial statements, including the disclosures, and whether the separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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 the audit.

We also provide those charged with governance with a statement that the auditor has complied with relevant ethical requirements regarding independence and 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 financial statements of the current period and are therefore the key audit matters. The auditor describes these matters in the 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.

Other Matters

As indicated in Note 2.1, the accompanying separate financial statements have been prepared in accordance with the legal provisions in force in Colombia. These financial statements should be read in conjunction with the consolidated financial statements issued separately.

The separate financial statements for the year ended December 31, 2022, which are included for comparative purposes only, were audited by us and in our report of March 27, 2023 we expressed an unqualified opinion.

Deloitte.

English translation

These separate financial statements, notes to the separate financial statements and the independent auditor's report were translated into English for the convenience of readers outside Colombia from financial statements originally issued in Spanish.

DELOITTE & TOUCHE S.A.S.
March 20, 2024.

‹ Back to content

Sustainability Report 2023

Grupo EPM's financial management

Grupo·epm

Table of contents

Grupo EPM's financial management

p.

Note 1. Reporting entity 1312

Note 2. Significant accounting policies 1331

Note 3. Significant accounting judgments, estimates and causes of uncertainty in the preparation of the financial statements 1395

Note 4. Significant transactions carried out and other relevant aspects that occurred during the period 1402

Note 5. Property, plants and equipment, net 1406

Note 6. Investment property 1415

Note 7. Goodwill and other intangible assets 1416

Note 8. Impairment of assets 1420

Note 9. Investments in subsidiaries 1430

Note 10. Investments in associates 1443

Note 11. Investments in joint ventures 1445

Note 12. Trade and other receivables 1447

Note 13. Other Financial Assets 1452

Note 14. Leases 1455

Note 15. Guarantees 1459

Note 16. Other assets 1460

Note 17. Inventories 1461

Note 18. Cash and cash equivalents 1462

Note 19. Equity 1471

Note 20. Accumulated other comprehensive income 1474

Note 21. Loans and borrowings 1480

Note 22. Creditors and others accounts payable 1492

Note 23. Other financial liabilities 1494

Table of contents

p.

Note 24. Derivatives and hedges 1496
Note 25. Employee Benefits 1501
Note 26. Taxes, contributions, and fees payable 1510
Note 27. Provisions, contingent assets and liabilities 1511
Note 28. Other liabilities 1557
Note 29. Changes in liabilities for financing activities 1560
Note 30. Deferred Regulatory Accounts 1560
Note 31. Income from ordinary activities 1562
Note 32. Other Income 1566
Note 33. Profit on sale of assets 1567
Note 34. Costs for the provision of services 1568
Note 35. Administrative costs 1569
Note 36. Other Expenses 1571
Note 37. Ingresos y gastos financieros 1572
Note 38. Net foreign exchange difference 1574
Note 39. Gain on equity investments 1575
Note 40. Income tax 1576
Note 41. Related party disclosures 1594
Note 42. Capital management 1596
Note 43. Financial risk management objectives and policies 1597
Note 44. Measuring fair value on a recurring and non-recurring basis 1613
Note 45. Service concession arrangements 1620
Note 46. Operating Segments 1628
Note 47. Events occurring after the reporting period 1633

Grupo•epm

Empresas Públicas de Medellín E.S.P.
y Subsidiarias

Annual Consolidated financial statements

Under Colombian Generally Accepted Accounting Principles (NCIF)

December 31, 2023 and 2022

Grupo•epm

Grupo•epm

EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As of December 31, 2023 and 2022

Figures expressed in millions of Colombian pesos

	Notes	2023	2022
Assets			
Non-Current Assets			
Property, plant and equipment, net	5	46,604,510	44,181,617
Investment property	6	194,610	190,574
Goodwill	7	2,977,065	3,693,266
Other intangible assets	7	2,994,207	3,405,647
Right-of-use assets	14	829,895	826,955
Investments in associates	10	1,056,124	1,153,598
Investments in joint ventures	11	17,739	17,166
Deferred tax assets	39	1,519,458	1,217,353
Trade and other receivables	12	3,061,104	2,441,171
Other financial assets	13	2,341,311	3,023,468
Other assets	16	360,309	331,706
Cash and cash equivalents (restricted)	18	59,346	89,065
Total non-current assets		**62,015,678**	**60,571,586**
Current assets			
Inventories	17	760,329	714,643
Trade and other receivables	12	8,463,392	7,504,762
Current tax assets	26	894,782	697,964
Other financial assets	13	517,297	1,047,473
Other assets	16	1,202,032	947,132
Cash and cash equivalents	18	3,244,472	4,038,679
Total current assets		**15,082,304**	**14,950,653**
Total assets		**77,097,982**	**75,522,239**
Debit balances of deferred regulatory accounts	30	137,883	56,115
Total assets and debit balances of deferred regulatory accounts		**77,235,865**	**75,578,354**
Liabilities and Equity			
Equity			
Issued capital	19	67	67
Treasury shares		(52)	(52)
Reserves	19	2,341,067	2,518,114
Accumulated other comprehensive income	20	2,720,926	3,765,881
Retained earnings	19	21,486,694	19,212,331
Net profit for the period	19	3,249,354	3,845,458
Other components of equity	19	84,698	78,565
Equity attributable to owners of the Company		**29,882,754**	**29,420,364**
Non-controlling interests	19	1,433,580	1,566,502
Total equity		**31,316,334**	**30,986,866**

Grupo•epm

EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As of December 31, 2023 and 2022

Figures expressed in millions of Colombian pesos

	Notes	2023	2022
Liabilities			
Non-current liabilities			
Loans and borrowings	21	23,129,694	25,896,191
Creditors and others accounts payable	22	592,334	676,537
Other financial liabilities	23	1,816,172	888,992
Employee benefits	25	923,520	699,708
Income tax payable	40	33,351	33,351
Deferred tax liabilities	40	2,572,738	2,368,390
Provisions	27	2,195,931	1,240,474
Other liabilities	28	562,122	707,853
Total non-current liabilities		**31,825,862**	**32,511,496**
Current liabilities			
Loans and borrowings	21	4,747,246	3,594,078
Creditors and others account payable	22	5,072,999	4,378,509
Other financial liabilities	23	747,974	686,730
Employee benefits	25	437,502	390,895
Income tax payable	40	368,646	500,396
Taxes contributions and rates payable	26	513,435	511,280
Provisions	27	458,399	582,926
Other liabilities	28	1,706,103	1,418,344
Total current liabilities		**14,052,304**	**12,063,158**
Total liabilities		**45,878,166**	**44,574,654**
Deferred tax liabilities related to balances of deferred regulatory accounts	30	41,365	16,834
Total liabilities and credit balances of deferred regulatory accounts		**45,919,531**	**44,591,488**
Total liabilities and equity		**77,235,865**	**75,578,354**

The accompanying notes are an integral part of the Consolidated Financial Statements

John Alberto Maya Salazar
General Manager
Certification Attached

Diana Rúa Jaramillo
Executive Vice-President of Finance and Investments

John Jaime Rodríguez Sosa
Director of Accounting and Costs
Professional Card N° 14482-T
Certification Attached

Grupo•epm

EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the years ended December 31, 2023 and 2022

Figures expressed in millions of Colombian pesos

	Notes	2023	2022
Rendering of services	31	36,897,753	31,524,554
Sale of goods	31	83,399	55,457
Leases	31	157,935	148,397
Ordinary activities revenue		**37,139,087**	**31,728,408**
Other income	32	392,735	488,409
Income from sale of assets	33	4,894	5,652
Total revenue		**37,536,716**	**32,222,469**
Costs of services rendered	34	(25,066,462)	(20,687,461)
Administrative expenses	35	(3,461,988)	(2,330,073)
Net impairment loss on accounts receivable	12	(1,199,656)	(1,106,405)
Other expenses	36	(125,435)	(138,511)
Finance income	37.1	804,674	397,903
Finance expenses	37.2	(3,267,082)	(2,284,882)
Net foreign exchange difference	38	171,188	(103,086)
Share of loss of equity accounted investees	10 y 11	(567,722)	(237,266)
Share of results of equity investments	39	178,118	70,722
Profit for the period before taxes		**5,002,351**	**5,803,410**
Income tax	40	(1,516,153)	(1,610,791)
Profit for the period after taxes		3,486,198	4,192,619
Net movement in balances of net regulatory accounts related to the result of the period	30	105,156	(97,743)
Net movement in deferred tax related to deferred regulatory accounts related to the results of the period	30	(29,408)	30,625
Profit for the period and net movement in deferred tax related to deferred regulatory accounts		3,561,946	4,125,501
Other comprehensive income			
Items that will not be reclassified to profit or loss:			
Remeasurement of defined benefit plans	20	(214,930)	126,956
Equity investments measured at fair value through equity	20	(539,451)	(131,035)
Equity method in Associates and Joint Ventures		(105,778)	(2,714)
Income tax related to components that will not be reclassified	20 y 40	180,040	(349,496)
		(680,119)	**(356,289)**
Items that will be reclassified subsequently to profit or loss:			
Cash flow hedges:	**20**	**446,908**	**(595,470)**
Reclassified to profit or loss for the period		(2,096,577)	329,799
Reclassification Adjustment		2,543,485	(925,269)
Exchange differences on translation of foreign operations	20	(1,123,159)	840,297
Equity method in Associates and Joint Ventures	10 y 20	273,052	3,347
Hedges of net investments in foreign operations		283,752	(216,145)
Income tax related to the components that may be reclassified	20 y 40	(250,892)	288,033
		(370,339)	**320,062**
Other comprehensive income for the period, net of taxes		(1,050,458)	(36,227)
Total comprehensive income for the period		2,511,488	4,089,274
Result for the period attributable to:			
Owners of the parent		3,249,354	3,845,458
Non-controlling interests		312,592	280,043
		3,561,946	**4,125,501**
Total comprehensive income attributable to:			
Owners of the parent		2,204,384	3,813,031
Non-controlling interests		307,104	276,243
		2,511,488	**4,089,274**

The accompanying notes are an integral part of the Consolidated Financial Statements.

John Alberto Maya Salazar
General Manager
Certification Attached

Diana Rúa Jaramillo
Executive Vice-President of Finance and Investments

John Jaime Rodríguez Sosa
Director of Accounting and Costs
Professional Card N° 14482-T
Certification Attached

Grupo•epm

EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

Years ended December 31, 2023 and 2022

Figures expressed in millions of Colombian pesos

						Ther comprehensive income									
	Issued capitals	Treasury shares	Reserves	Retained earnings	Other equity components	Equity investments	Defined benefit plans	Cash flow hedges	Hedges of net investments in foreign operations	Exchange differences on translation of foreign operation	Reclassification of property, plant and equipment to investment property	Accumulated share in other comprehensive income of associates and joint ventures business	Attributable to Owners of the Parent	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 20.7	Note 20.1	Note 20.4		Note 19.4	
Balance at Jan 1, 2022	67	(52)	2,416,297	21,165,517	74,520	3,064,037	(8,724)	(342,590)	(61,509)	1,117,985	12,471	16,788	27,454,807	1,295,378	28,750,185
Net result of the period	-	-	-	3,845,458	-	-	-	-	-	-	-	-	3,845,458	280,043	4,125,501
Other comprehensive income of the period, net of income tax	-	-	-	-	-	(433,769)	73,258	(307,437)	(216,145)	851,032	-	634	(32,427)	(3,800)	(36,227)
Comprehensive income for the period	**-**	**-**	**-**	**3,845,458**	**-**	**(433,769)**	**73,258**	**(307,437)**	**(216,145)**	**851,032**	**-**	**634**	**3,813,031**	**276,243**	**4,089,274**
Surpluses or dividends decreed	-	-	-	(1,850,775)	-	-	-	-	-	-	-	-	(1,850,775)	(195,339)	(2,046,114)
Movement of reserves	-	-	101,816	(101,816)	-	-	-	-	-	-	-	-	-	-	-
Purchases and sales to non-controlling interests	-	-	-	(30)	-	-	-	-	-	-	-	-	(30)	30	-
Transfers and sales to non-controlling interests	-	-	-	149	-	(11)	-	-	-	-	(139)	-	(1)	-	(1)
Income tax related to transactions with owners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equity method on variations in equity	-	-	-	-	4,045	-	-	-	-	-	-	-	4,045	-	4,045
Other movement for the period	-	-	1	(714)	-	-	-	-	-	-	-	-	(713)	190,190	189,477
Balance at Dec 31, 2022	67	(52)	2,518,114	23,057,789	78,565	2,630,257	64,534	(650,027)	(277,654)	1,969,017	12,332	17,422	29,420,364	1,566,502	30,986,866
Balance at Jan 1, 2023	67	(52)	2,518,114	23,057,789	78,565	2,630,257	64,534	(650,027)	(277,654)	1,969,017	12,332	17,422	29,420,364	1,566,502	30,986,866
Net result of the period	-	-	-	3,249,354	-	-	-	-	-	-	-	-	3,249,354	312,592	3,561,946
Other comprehensive income of the period, net of income tax	-	-	-	-	-	(430,040)	(134,426)	293,343	186,424	(1,127,545)	-	167,274	(1,044,970)	(5,488)	(1,050,458)
Comprehensive income for the period	**-**	**-**	**-**	**3,249,354**	**-**	**(430,040)**	**(134,426)**	**293,343**	**186,424**	**(1,127,545)**	**-**	**167,274**	**2,204,384**	**307,104**	**2,511,488**
Surpluses or dividends decreed	-	-	-	(1,748,005)	-	-	-	-	-	-	-	-	(1,748,005)	(201,781)	(1,949,786)
Movement of reserves	-	-	(177,047)	177,047	-	-	-	-	-	-	-	-	-	-	-
Purchases and sales to non-controlling interests	-	-	-	12	22	-	-	-	-	-	-	-	34	(34)	-
Equity method on variations in equity	-	-	-	-	6,111	-	-	-	-	-	-	-	6,111	-	6,111
Other movement for the period	-	-	-	(149)	-	15	-	(95,264)	95,264	-	-	-	(134)	(238,211)	(238,345)
Balance at Dec 31, 2023	67	(52)	2,341,067	24,736,048	84,698	2,200,232	(69,892)	(451,948)	4,034	841,472	12,332	184,696	29,882,754	1,433,580	31,316,334

The accompanying notes are an integral part of the Consolidated Financial Statements.

John Alberto Maya Salazar
General Manager
Certification Attached

Diana Rúa Jaramillo
Executive Vice-President of Finance and Investments

John Jaime Rodríguez Sosa
Director of Accounting and Costs
Professional Card N° 14482-T
Certification Attached

Grupo•epm

EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

For the years ended December 31, 2023 and 2022

Figures expressed in millions of Colombian pesos

	Notes	2023	2022
Cash flows from operating activities:			
Profit for the period		**3,561,946**	**4,125,501**
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	34 y 35	1,874,177	1,524,883
Impairment of property, plant and equipment, right of use assets and intangible assets	8	149,245	88,647
Net impairment loss on accounts receivable	12	1,199,656	1,106,405
Reversal loss of impairment of property, plant and equipment value, right-of-use assets and intangible assets	8	(34)	(117)
Impairment of investments in associates and joint ventures	8	-	6,420
Write-down of inventories, net	34 y 36	3,647	2,023
Result due to foreign exchange difference	38	(171,188)	103,086
Result due to valuation of investment property	32 y 36	(10,012)	(20,383)
Result for valuation of financial instruments and hedge accounting	37.1 y 37.2	(269,693)	25,353
Result of compensation for activities associated with investment flow		(477)	-
Provisions, post-employment and long-term defined benefit plans	35	989,939	317,572
Provisions for tax, insurance and reinsurance obligations and financial updating	35 y 37.2	137,515	86,223
Applied Government subventions	32	(119,939)	(119,985)
Deferred income tax	40	(189,569)	(152,669)
Current income tax	40	1,705,722	1,763,460
Results by Equity method in Associates and Joint Ventures	10 y 11	567,721	237,266
Interest and yield income	37.1	(329,588)	(293,616)
Interest and commission expenses	37.2	2,947,300	2,069,530
Result due to disposal of property, plant and equipment, right-of-use assets, intangibles and investment property	33 y 36	(2,007)	(5,084)
Result from withdrawal of property, plant and equipment, right of use assets, intangible assets and investments	33 y 36	56,093	51,865
Profit or loss from disposal of financial instruments		19	-
Profit or loss at fair value retained interest in equity investments		86	-
Non-cash recoveries	32	(68,570)	(117,643)
Result of deferred regulatory accounts	30	(75,748)	67,117
Result from business combinations		-	(83)
Dividend income from investments	13	(178,222)	(77,059)
		11,778,019	**10,788,712**
Net changes in operating assets and liabilities:			
Change in inventories		(49,595)	(195,929)
Change in trade and other receivables		(3,275,568)	(3,327,709)
Change in other assets		103,042	(562,298)
Change in creditors and other accounts payable		598,615	639,967
Change in employee benefits		26,301	25,369
Change in provisions		(298,874)	(375,632)
Change in other liabilities		(211,163)	1,040,968
Cash generated from operating activities		**8,670,777**	**8,033,448**
Interest paid		(2,947,777)	(1,885,286)
Income tax paid		(1,879,389)	(1,402,809)
Income tax refund		(2,844)	(1,576)
Net cash provided by operating activities		**3,840,767**	**4,743,777**
Cash flows from investing activities:			
Acquisition and capitalization of subsidiaries or businesses		(300,000)	-
Purchase of property, plant and equipment	5	(5,121,817)	(4,952,635)
Disposal of property, plant and equipment	5	63,031	36,677
Purchase of intangible assets	7	(522,597)	(529,382)
Disposal of intangible assets	7	-	10,215
Acquisition of investment properties		(695)	-
Disposal of investment properties		912	802
Disposal of associates and joint ventures		-	122
Purchase of investments in financial assets	13 y 24	(561,074)	(385,474)
Disposal of investments in financial assets	13	1,081,444	841,957
Interest received		618	274
Dividends received from associates and joint business	10	-	8,167
Other dividends received	13	178,181	76,981
Compensation received	5	-	2,521,064
Other cash flows from investment activities		(1,504)	(8,929)
Net cash flow used in investing activities		**(5,183,501)**	**(2,380,161)**
Cash from financing activities:			
Obtaining public credit and treasury	21	6,556,486	3,797,929
Payments public credit and treasury	21	(4,438,676)	(3,516,017)
Transaction costs due to issuance of debt instruments	21	(16,847)	(26,617)
Payments of liabilities for financial leasing	23	(109,816)	(63,672)
Dividends or surpluses paid	19 y 41	(1,748,005)	(1,850,775)
Dividends or surpluses paid to non-controlling interests	9	(96,112)	(172,661)
Capital subventions		150	317
Payments of capital of derivatives designated as cash flow hedges		-	37,233
Payment of pension bonds	23	(47,735)	(61,475)
Other cash from financing activities		3,696	(4,320)
Net cash flows provided / (used in) by financing activities		**103,141**	**(1,860,058)**
Net increase in cash and cash equivalents		**(1,239,593)**	**503,558**
Effects of variations in foreign exchange rates in the cash and cash equivalents		415,667	(465,876)
Cash and cash equivalents at beginning for the period	18	4,127,744	4,090,062
Cash and cash equivalents at end for the year	**18**	**3,303,818**	**4,127,744**
Restricted cash	18	447,930	299,174

The accompanying notes are an integral part of the Consolidated Financial Statements.

John Alberto Maya Salazar
General Manager
Certification Attached

Diana Rúa Jaramillo
Executive Vice-President of Finance and Investments

John Jaime Rodríguez Sosa
Director of Accounting and Costs
Professional Card N° 14482-T
Certification Attached

Notes to the Consolidated Financial Statements

of Grupo EPM

for the periods ended December 31, 2023 and 2022

(In millions of Colombian pesos, unless otherwise indicated)

Note 1.

Reporting entity

Empresas Públicas de Medellín E.S.P. and subsidiaries (hereinafter "Grupo EPM" or "Group") is the parent company of a multi-Latin business group made up of 46 companies and 6 structured entities[1] ; with a presence in the rendering of public services in Colombia, Chile, El Salvador, Guatemala, Mexico and Panama.

Empresas Públicas de Medellín ESP (hereinafter EPM), the parent company of the "EPM Group", is a decentralized entity of the municipal order, created in Colombia through Agreement 58 of August 6, 1955, of the Administrative Council of Medellín, as an autonomous public establishment. It was transformed into an industrial and commercial company of the State of municipal order, by Agreement 069 of December 10, 1997, of the Council of Medellín. Due to its legal nature, EPM is endowed with administrative and financial autonomy and own equity, in accordance with Article 85 of Law 489 of 1998. The capital with which it was established and operates, as well as its equity, is public nature, being its sole owner of the municipality of Medellin. Its main address is at Carrera 58 No. 42-125 in Medellín, Colombia. It does not have an established term of duration.

EPM provides residential public services of aqueduct, sewage, energy, and distribution of fuel gas. It can also provide the residential public services of cleaning, treatment, and use of garbage, as well as the complementary activities of one of these public services.

[1] *Autonomous Assets of Social Financing of EPM (until November), CHEC, EDEQ, ESSA, CENS, Credieegsa S.A. and Somos, under International Financial Reporting Standards (IFRS) adopted in Colombia, are considered structured entities that are part of the scope of the consolidation of financial statements of the EPM Group.*

The Group offers its services through the following segments, whose activities are described in Note 46 Operating Segments: Power Generation and Marketing, Energy Distribution and Commercialization and Electricity Transmission, Natural Gas Distribution and Marketing, Water Supply and Marketing, Wastewater Management and Marketing, Solid Waste Management and Marketing. In addition, the other segment includes participation in the telecommunications business, through the associated company UNE EPM Telecomunicaciones S.A. and its subsidiaries: Edatel S.A. E.S.P, Orbitel Servicios Internacionales S.A. - OSI, Cinco Telecom Corporation – CTC and Colombia Móvil S.A. and the associated Inversiones Telco S.A.S. and its subsidiary Emtelco S.A.; offering voice, data, Internet, professional services, data center, among others.

The Group's consolidated financial statements for the period ended December 31, 2023, were authorized by the Board of Directors for publication on March 20, 2024.

1.1. Regulations for Colombia

The activity carried out by the group, provision of home public services in Colombia, is regulated in Colombia mainly by Law 142 of 1994, Public Services Law, and Law 143 of 1994, Electricity Law.

The functions of control, inspection and surveillance of the entities that provide residential public services are exercised by the Superintendence of Residential Public Services (SSPD, for its Spanish initials).

EPM, as an issuer of Bonds, is subject to the control of the Financial Superintendence of Colombia under Decree 2555 of 2010, which collects and reissues the regulations on the financial, insurance and securities market sectors and dictates other provisions, establishes that the SIMEV is the set of human resources, technical and managerial measures to be used by the Financial Superintendence of Colombia to enable and facilitate the provision of information to the market. Among these tools, there is the National Registry of Securities and Issuers - RNVE, which aims to have a registry of the issuers of securities and the issues they make. EPM, when issuing bonds, is subject to the control of this Superintendence and to the rules that for financial information purposes are required by its issuance,

especially External Circular 038 of 2015 whose reference is: Modification to the deadlines for the transmission of the Quarterly and Year-End Interim Financial Statements under IFRS adopted in Colombia, Individual or Separate and Consolidated and their reporting in XBRL (extensible Business Reporting Language) and which was modified by External Circulars 008, 017 and 037 of 2016; additionally, External Circulars 031 of 2021 on social and environmental matters, including climate issues, and 012 of 2022 on periodic information, in development of Decree 151 of 2021.

For accounting purposes, the Company is regulated by the accounting standards issued by the National General Accounting Office, these standards are based on the IFRS issued by the IASB, as well as the interpretations issued by the IFRIC, as described in the accounting policies section.

For administering the health service as benefits to employees, under the figure of Adapted Health Company - EAS, it is supervised by the National Superintendence of Health.

As a decentralized district entity, EPM is subject to the political control of the District of Medellín, the fiscal control of the Office of the Comptroller General of Medellín, and the disciplinary control of the Office of the Attorney General of the Nation.

1.1.1. Regulation commissions

Law 142 of 1994, in its articles 68 and 69, delegates to the regulation commissions the presidential function of establishing general policies for administration and control of efficiency in residential public services.

These entities are the following:

- The Energy and Gas Regulation Commission (CREG for its Spanish initials), a technical department attached to the Ministry of Mines and Energy (MME), which regulates energy sales rates and aspects related to the operation of the Wholesale Energy Market (MEM) and, more generally, with the provision of electric energy, fuel gas and liquid fuel services.

- The Commission for the Regulation of Drinking Water and Basic Sanitation (CRA for its Spanish initials) regulates the rates of aqueduct, sewerage and cleaning and their conditions of provision in the market. It is a special administrative unit, attached to the Ministry of Housing, City and Territory.

1.1.2. Regulation by sector

1.1.2.1. Activities of the aqueduct, sewage and sanitation sector

Law 142 of 1994, Public Services Law, defined water, sewage and cleaning services:

Aqueduct: also called home public drinking water service. Activity that consists of the municipal distribution of water suitable for human consumption, including its connection and measurement. Includes complementary activities such as water collection and processing, treatment, storage, conduction, and transportation.

Sewerage: an activity that consists of the municipal collection of waste, mainly liquid, through pipes and conduits. Includes complementary activities of transport, treatment and final disposal of such waste.

Cleaning: an activity that consists of the municipal collection of waste, mainly solid. Includes complementary activities of transport, treatment, use and final disposal of such waste.

For the first two services, the tariff framework is established in Resolutions CRA 688 of 2014 and CRA 735 of 2015. For the public sanitation service, in resolution CRA 720 of 2015. These standards establish quality and coverage indicators, encourage the achievement of goals, and define remuneration mechanisms to guarantee the financial sufficiency of the company.

1.1.3. Activities of the electricity sector

Law 143 of 1994 segmented the electric power service into four activities: generation, transmission, distribution and commercialization, which can be developed by independent or integrated companies in the terms defined in article 298 of Law 1955 of 2019. The legal framework aims to supply the demand for electricity under economic criteria and financial viability and promote an efficient, safe and reliable operation of the sector.

Generation: consists of the production of electricity from different sources (conventional or non-conventional), whether that activity is carried out exclusively or in combination with one or more other activities in the electricity sector, whichever of them is the main activity.

Transmission: the national transmission activity is the transport of energy in the National Transmission System (hereinafter STN for its initials in Spanish). It is made up of a set of lines, with their corresponding connection equipment, which operate at voltages equal to or greater than 220 kV. The National Transmitter is the legal entity that operates and transports electricity in the STN or has established a company whose purpose is the development of that activity.

Distribution: consists of transporting electrical energy through a set of lines and substations, with their associated equipment, which operate at voltages less than 220 kV.

Commercialization: an activity consisting of the purchase of electricity in the wholesale market and its sale to other market agents or to regulated and non-regulated end users, whether this activity is carried out exclusively or combined with other activities in the electricity sector, whichever is the main activity.

1.1.4. Natural gas sector activities

Law 142 of 1994 defined the legal framework for the provision of home public services, an area in which the home public service of fuel gas is defined as:

Set of activities related to the distribution of fuel gas, by pipeline or other means, from a large volume storage site or from a central gas pipeline to the installation of a final consumer, including its connection and measurement. This Law will also apply to complementary commercialization activities from the production and transportation of gas through the main gas pipeline, or by other means, from the generation site to the one where it is connected to a secondary network.

1.2. Regulations for Chile

1.2.1. Health sector activities

The Sanitary Sector is constituted by a set of entities whose functions are related to the services of production and distribution of drinking water and collection and disposal of wastewater, that is, the companies in charge of providing said services and the Superintendence of Services. Sanitary, the regulatory and supervisory body of this sector.

1.2.2. Regulatory framework

In the current regulation scheme, where the normative and supervisory function of the State is separated from the production function, the Superintendence of Sanitary Services is created, a regulatory and

supervisory entity of the sector. This agency is a decentralized entity with legal personality and its assets, subject to the supervision of the President of the Republic through the Ministry of Public Works. It exercises the regulatory and supervisory functions of the activity of the companies that operate in this sector.

The regulation model emphasizes two crucial aspects to introduce economic rationality in the operation of the sector: tariffs and the concession regime, both aspects are contained in the legal framework under which the operation of the sector is regulated, being a function of The Superintendence of Sanitary Services apply and enforce the provisions of the respective legal bodies: DFL No. 70 of 1988, Tariff Law, and DFL No. 382 of 1988, General Law of Sanitary Services.

The legal framework of the Chilean health sector is mainly made up of:

- Law of the Superintendence of Sanitary Services - Law 18,902 of 1990 (Modified by Law No. 19,549 of 1998 and Law No. 19,821 of 2002 and Law No. 20,417 of 2010): creates the Superintendence of Sanitary Services as a functionally decentralized service, with legal personality and its own assets, subject to the supervision of the President of the Republic through the Ministry of Public Works.

  The Superintendence of Sanitary Services will be responsible for supervising the providers of sanitary services, compliance with the regulations related to sanitary services and the control of industrial liquid waste that is linked to the benefits or services of the sanitary companies, being able to ex officio or at the request of any interested party, to inspect the sanitary infrastructure works carried out by the providers.

- Decree with Force of Law, of 1988, of the Ministry of Public Works, General Law of Sanitary Services.

- Regulation of the General Law of Sanitary Services, Supreme Decree (DS for its initials in Spanish) of the Ministry of Public Works (MOP for its initials in Spanish) No. 1199, Dec/2004 - Published in the Official Gazette (DO for its initials in Spanish) on Nov 9, 2005: approves the regulation of the Sanitary concessions for the production and distribution of drinking water and the collection and disposal of sewage and the standards on quality of care for users of these services.

- Sanitary services tariff law: Decree with Force of Law MOP No. 70 of 1988 - Published in DO 30-Mar-1988 (modified by Law No. 19,549 of 1998 and Law No. 21,075 of 2018).
- Supreme Decree No. 453, of 1990, of the Ministry of Economy, Regulation of the Sanitary Services Tariff Law
- Supreme Decree No. 214, of 2005, of the Ministry of Public Works, establishes the requirements to which the public bidding processes to which sanitation providers are obliged must comply, by virtue of the provisions of article 67 of the General Law of Services Sanitary.
- Water Code and its amendments: DFL No. 1,122 regulates the ownership and the right to use water. The latest amendments are: Law No. 20,017 of 2005, Law No. 20,099 of 2006, Law No. 20,304 of 2008, Law 20,417 of 2010, Law No. 20,697 of 2013 and Law No. 21,064 of 2018
- Regulation of Residential Drinking Water and Sewage Installations - DS MOP No. 50 of January/2003 (amended by DS MOP No. 669 of 2009).

1.2.3. Regulatory entities

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

- Ministry of Public Works (MOP): grants concessions and promotes water supply and sanitation in rural areas through its Department of Sanitation Programs. Apart from its own functions, in relation to the health sector, it is responsible for the administration of legislation on water resources, the allocation of water rights and the approval of concession rights to establish, build and operate sanitary services.
- Superintendence of Sanitary Services (SISS for its initials in Spanish): Chilean State agency that regulates and oversees companies that provide drinking water services and the collection and treatment of wastewater for the urban population.

- Ministry of Health: Monitors the quality of water in the sanitary services that are not under the jurisdiction of the Superintendence (which are not public sanitary services) and makes official the quality standards studied under the provisions of the National Institute for Standardization.
- Ministry of Economy, Development and Tourism: Designs and monitors the implementation of public policies that affect the country's competitiveness; promotes and controls activities in the sectors of industry, services and commerce. Its main lines of action are related to the design and promotion of Innovation and Entrepreneurship Policies. In relation to the health sector, it is the setting of regulated prices, at the proposal of the Superintendence.
- The General Head of Waters (DGA for its initials in Spanish): is the State agency in charge of managing, verifying and disseminating the country's water information, especially regarding its quantity and quality, the natural and legal persons who are authorized to use it, the works existing hydraulics and their safety ; with the purpose of contributing to a greater market competitiveness and safeguarding legal and water certainty for the country's sustainable development.

1.3. Regulations for El Salvador

In El Salvador, a restructuring process of the electricity sector was developed, which materialized in a legal and institutional framework that aims to promote competition and the necessary conditions to ensure the availability of an efficient energy supply, capable of supplying the demand under technical, social, economic, environmental, and financial viability, criteria.

In the 1990s, El Salvador promoted a reform process in the energy sector that consisted of the restructuring of the hydrocarbon and electricity sectors, the privatization of most of the state companies that provided energy goods or services, and the deregulation of the markets.

1.3.1. Regulatory framework

The legal framework of the Salvadoran electricity sector is made up of the Law for the Creation of the General Superintendence of Electricity and Telecommunications (SIGET for its initials in Spanish), issued through Legislative Decree 808 of September 12, 1996, which gave legal life to the regulatory entity; as well as by the General Electricity Law (LGE for its initials in Spanish), issued through Legislative Decree 843 of October 10, 1996, and by the Regulations of the General Electricity Law, established through Executive Decree 70 of July 25, 1997, including its modifications.

As a result of the restructuring process of the electricity sector, the Transactions Unit SA (UT for its initials in Spanish), which manages the Wholesale Electricity Market, and the Transmission Company of El Salvador (ETESAL for its initials in Spanish) were created, while the distribution companies were privatized, as well as thermal generation. In addition, hydroelectric and geothermal generation activities were separated.

1.3.2. Regulatory entities

Some of the main regulatory entities at the energy field in El Salvador are:

- Ministry of Economy (MINEC for its initials in Spanish): Central Government institution whose purpose is to promote economic and social development by increasing production, productivity and the rational use of resources. Its responsibilities include defining the country's trade policy, monitoring and promoting Central American economic integration, and heading the National Energy Council. It also contributes to the development of competition and competitiveness of productive activities, both for the internal and external markets.
- General Superintendence of Electricity and Telecommunications (SIGET): is an autonomous non-profit public service institution. Said autonomy includes the administrative and financial aspects and is the competent entity to apply the norms contained in international treaties on electricity and telecommunications in force in El Salvador, as well as in the laws that govern the electricity and

telecommunications sectors and their regulations, in addition to knowing of non-compliance with them.

- Transactions Unit (UT): one of its functions is to manage the wholesale electricity market and operate the transmission system, maintaining safety and quality and providing market operators with satisfactory answers for the development of their activities transparently and efficiently. Likewise, it coordinates with the Regional Operator Entity (EOR) the energy transactions carried out by El Salvador with other countries at the Central American and international levels. Finally, it determines responsibilities in case of system failures.
- General Directorate of Energy, Hydrocarbons and Mines (DGEHM for its Spanish initials): Its functions are the formulation, adoption, monitoring and evaluation of compliance with policies, plans and regulations of the energy, hydrocarbons and mining sectors. Likewise, it will authorize, regulate and supervise (including surveillance, oversight, evaluation, inspection and control) the operation of those participating in the activities of these sectors. The Directorate is empowered to prepare the Energy Policy, establish strategies and indicative plans for the short, medium and long term. Formulating, adopting, directing and coordinating the policy on generation, transmission, distribution and commercialization of electric energy.
- National Energy Council (CNE for its initials in Spanish): The CNE is the superior, guiding and regulatory authority of energy policy whose objectives are to develop the National Energy Policy and short, medium and long-term energy planning; promote the existence of regulatory frameworks to promote investment and development of the energy sector, monitor the proper functioning of energy markets; promote the rational use of energy; develop and expand renewable energy resources and promote the integration of regional energy markets.
- The Regional Electricity Interconnection Commission (CRIE for its Spanish initials) is the regulatory and normative entity of the Regional Electricity Market, with its own legal personality, international public law capacity, economic independence, functional independence and technical specialty. The CRIE is part of the Central American Integration System (SICA).

- Regional Operating Entity (EOR for its Spanish initials) Among its functions is to propose to the CRIE the procedures for the operation of the Market and the use of the regional transmission networks, ensure that the operation and regional dispatch of energy is carried out with economic criteria, seeking to achieve adequate levels of safety, quality and reliability, carry out the commercial management of transactions between Market agents, support, through the provision of information, the processes of evolution of the Market, formulate the indicative expansion plan of generation and regional transmission, providing for the establishment of regional reserve margins and make it available to the Market agents.

1.4. Regulations for Guatemala

The Political Constitution of the Republic of Guatemala of 1985 declared the electrification of the country a national urgency, based on plans formulated by the State and the municipalities, in a process that could count on the participation of private initiative.

1.4.1. Regulatory framework

With the Political Constitution as a legal basis, in 1996 the General Electricity Law (Decree No. 93-96) was decreed, by means of which the fundamental legal norms were established to facilitate the performance of the different sectors of the electrical system.

1.4.2. Regulatory entities

Some of the main regulatory entities at the energy field in Guatemala are:

- Ministry of Energy and Mines: it is the most important Guatemalan government entity in the electricity sector. It is responsible for enforcing the General Electricity Law and related regulations, as

well as coordinating policies between the National Electric Energy Commission (CNNE for its initials in Spanish) and the Wholesale Market Administrator (AMM for its initials in Spanish). This government agency also has the authority to grant authorization permits for the operation of distribution, transmission and generation companies.

- National Electric Energy Commission (CNNE): The Guatemalan electricity sector is regulated by the CNEE, a regulatory entity created in accordance with the General Electricity Law, as a technical body of the Ministry of Energy and Mines and subordinate to it. It is made up of three members appointed by the President of the Republic from short lists proposed by the rectors of the universities, the Ministry of Energy and Mines and the agents of the Wholesale Market. The duration of each board of directors is five years.
- Wholesale Market Administrator (AMM): is the entity in charge of managing the Guatemalan Wholesale Market, a private entity created by the General Electricity Law, which coordinates the operation of generation facilities, international interconnections and transmission lines that make up the National Interconnected System. Likewise, it is responsible for the safety and operation of the system by carrying out an economically efficient dispatch and managing electricity resources, in such a way as to minimize operating costs, including failure costs, within the restrictions imposed by the electricity system. transmission and quality of service requirements. Also, the AMM is in charge of programming the supply and dispatch of electricity. The regulations of the AMM are subject to the approval of the CNNE. If a generation, transmission, distribution company or an electricity agent or large user does not operate its facilities in accordance with the regulations established by the AMM, the CNNE has the ability to sanction it with fines and, in the event of a serious violation, may require you to disconnect from the National Interconnected System.

1.5. Regulations for Mexico

1.5.1. Regulatory framework of the water and sanitation sector

At the state level, each of the 32 federal entities has its respective water laws, with substantially the same purposes despite the various denominations. Modifications to state legislation associated with the provision of water and sanitation services derived mainly from a series of initiatives promoted by the National Water Commission (CONAGUA for its initials in Spanish) in the 1990s.

The National Water Commission (CONAGUA) is an administrative, regulatory, technical, advisory and decentralized body of the Ministry of the Environment and Natural Resources (Semarnat for its initials in Spanish) created in 1989, with the mission of preserving national waters and their inherent public goods for its sustainable administration and guarantee water security with the responsibility of government orders and society in general.

Various instances at the federal, state and municipal levels, as well as associations of users, companies and institutions of the private and social sector that work together with CONAGUA.

This is how the evolution that since then and until the beginning of this decade has experienced the state legal regime in matters of water and sanitation is summarized:

- Reforms of 1983 to Article 115 of the Constitution, with which the municipal nature of water and sanitation services was ratified and strengthened, which made it necessary to guide the role of state authorities in this matter to assign them a subsidiary role and to some extent regulatory.
- Government policies established to promote the creation of decentralized bodies (creation decrees) of the Municipal Administration,

with the technical capacity and administrative and financial autonomy necessary for the efficient provision of services, together with the introduction of private sector participation schemes.

- Greater participation of the state authorities in the administration of national waters, through agreements that, in accordance with the provisions of Article 116 of the Constitution, the federation can sign with the state governments, so that the latter carry out or exercise different tasks or attributions, of exclusive competence of the federal government. This possibility was further reinforced by the amendments and additions to the National Water Law that came into force in 2004.

- In 2012, human rights and access to water and sanitation were elevated to constitutional status through the reform of the sixth paragraph of Article 4 of the Constitution. After its publication in the Official Gazette of the Federation (DOF), a period of 360 days was granted for the issuance of a new General Water Law to be implemented from said constitutional reform, thus replacing the National Water Law of 1992. To date, no such approval has been made and it is still pending in the country, only parts of the Law have been reformed and the debate continues in the Water Resources Commission of the Chamber of Deputies. On March 23, 2021, the Chamber of Deputies approved reforms to the National Water Law, which aims to establish the National Water Program that includes sustainable use, savings and efficient use, which will ensure the availability of the liquid.

  The opinion, which adds a second paragraph to section III of article 9 and amends section VIII of article 14 Bis 3 of the aforementioned ordinance, sent to the Senate for its constitutional effects, adds that the development and implementation of alternative systems for the use and collection of rainwater must be promoted. It includes actions for sustainable development, saving and efficient use of water, and will contribute to scientific research and technological development.

- During 2021, the Water Resources Commission of the Chamber of Deputies has sought to revive the proposal to create a National Water Infrastructure Fund that meets water investment commitments by 2030. In January 2022, the Supreme Court of Justice of the Nation (SCJN) reiterated that the Congress of the Union has committed a legislative omission by not issuing the new General Water Law.

- In the period from May 11, 2022 to May 8, 2023, reforms were made to the National Water Law regarding the Technical Committee of CONAGUA and in terms of mining and water concessions, being the most relevant during that period. Similarly, on October 11, 2023, the Chamber of Deputies approved the opinion that adds a section to article 3 of the National Water Law, to include the concept of "National Inventory of Wetlands", which was turned over to the Senate for review and approval.
- In 2023, the Water Resources Commission of the Chamber of Deputies presented the draft opinion to issue the new General Water Law, so this project is currently in the Senate to review, propose and make the necessary adjustments to the proposal that will replace the current National Water Law, Issued in 1992.

In view of the above, it was proposed to convene an Open Parliament to remedy the possible deficiencies of the law, by virtue of its importance; In addition, he proposed also convening the Commission on Hydraulic Resources, Drinking Water and Sanitation of the Chamber of Deputies, to harmonize the criteria.

1.5.2. Regulatory entities

Some of the main regulatory bodies in the sanitation sector in Mexico at the federal level are:

- The Committee of the Environment and Natural Resources (SEMARNAT): in the different fields of society and the public function, it incorporates criteria and instruments that ensure optimal protection, conservation and use of the country's natural resources, thus forming a comprehensive environmental policy and inclusive that allows achieving sustainable development, provided that they are not expressly entrusted to another dependency; likewise, in terms of ecology, environmental sanitation, water, environmental regulation of urban development and fishing activity, with the corresponding participation of other dependencies and entities.

- National Water Commission (CONAGUA): with the participation of society, it manages and preserves national waters, to achieve the sustainable use of the resource with the co-responsibility of the three orders of government and society in general. It constitutes an authority with technical quality and promoter of government orders in the integrated management of water resources and their inherent public goods and protects water bodies to guarantee sustainable development and preserve the environment.
- Mexican Institute of Water Technology (IMTA for its initials in Spanish): it is a public center for research and technological development that works in the various areas of water resources management, in the areas of basic and applied research, development and transfer of technology, specialized advice, training of human resources, dissemination and dissemination of knowledge to contribute to protecting and conserving the country's water resources.
- Federal Attorney for Environmental Protection (PROFEPA for its initials in Spanish): PROFEPA's main task is to increase the levels of compliance with environmental regulations, in order to contribute to sustainable development and enforce environmental laws.
- Secretary of Welfare, (formerly Secretary of Social Development): defines the commitments of the administration to advance in the achievement of effective social development. Formulates and coordinates the solidarity and subsidiary social policy of the federal government, oriented towards the common good, and executes it in a co-responsible manner with society.

1.6. Regulations for Panama

The electricity sector in Panama is divided into three areas of activities: generation, transmission and distribution. The country has a regulatory structure in place for the electricity industry, based on legislation passed between 1996 and 1998. This framework creates an independent regulator, the National Public Services Authority (ASEP), and creates a transparent process for setting rates for the sale of energy to regulated customers.

1.6.1. Regulatory framework

The regulatory regime is mainly composed of the following rules:

- Law 6 of February 3, 1997: dictates the regulatory and institutional framework for the provision of public electricity service. It establishes the regime to which the activities of distribution, generation, transmission and commercialization of electrical energy will be subject.
- Law 57 of October 13, 2009: several modifications are made to Law 6 of 1997, among which are: the obligation of generating companies to participate in the processes of purchasing energy or power, the obligation for the Electric Transmission Company SA (ETESA for its initials in Spanish) to buy energy on behalf of the distributors, and the increase in the fines that the regulator can impose up to $20 million balboas, while establishing the right of customers to refrain from paying for the portion they claim and grants a term of 30 days to claim before the regulator in case of not being satisfied with the response given by the distributor.
- Law 58 of May 30, 2011: the articles related to rural electrification are modified, among which are: the modification of the calculation of the subsidy that the Rural Electrification Office (OER for its initials in Spanish) must pay to the distributors for a period of 4 years (before it was paid for 20 years) and the creation of a rural electrification fund for 4 years, which will be made up of contributions from market agents that sell electricity and will not exceed 1 % of their net income before taxes.

1.6.2. Regulatory entities

Some of the main regulatory entities at the energy field in Panama are:

- The Secretary of Energy: its mission is to formulate, propose and promote the national energy policy in order to guarantee the security of supply, the rational and efficient use of resources and energy in a sustainable manner, according to the National Development Plan. It is currently negotiating with the Electricity Transmission Company

(ETESA for its initials in Spanish) the formation of an energy matrix with greater and more varied renewable and clean resources (wind, gas, among others).

- The National Public Services Authority (ASEP for its initials in Spanish): established in accordance with the 1996 Public Services Regulatory Entity Law. It is an autonomous entity of the Government with responsibility for regulating, controlling and supervising the provision of water and electricity services and sanitary sewage, telecommunications, radio and television, electricity and natural gas.

  On February 22, 2006, by Decree Law 10, the Regulatory Entity of Public Services (ERSP for its initials in Spanish) was restructured and changed its name, for which since April 2006 it is known as ASEP, with the same responsibilities and functions that it had. the regulatory entity, but with a general administrator and an executive director, each appointed 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 appeals to them are resolved by the general administrator as the final stage of the administrative process.

- The Planning Unit of the Electricity Transmission Company (ETESA): prepares the reference expansion plans and projects the global energy requirements and the ways to satisfy such requirements, including the development of alternative sources and establishing programs to conserve and optimize the energy use. Public service companies are required to prepare and submit their expansion plans to ETESA.

- The National Dispatch Center (CND): is operated by ETESA. Plans, supervises and controls the integrated operation of the National Interconnected System. Receives offers from generators that participate in the energy sales market (spot), determines energy spot prices, manages the transmission network and provides settlement values between suppliers, producers and consumers, among others.

- The Rural Electrification Office (OER): is responsible for promoting electrification in rural areas that are not served, are not profitable, and are not granted concessions.

Note 2.

Significant accounting policies

2.1. Basis for the preparation of the financial statements

The Group's consolidated financial statements are prepared in accordance with the Accounting and Financial Reporting Standards accepted in Colombia (NCIF) and adopted by the General Accounting Office of the Nation through Resolution 037 of 2017, Resolution 056 of 2020, Resolution 035 and 0197 of 2021 and Resolution CGN 267 of 2022 (hereinafter, IFRS adopted in Colombia). These accounting and financial reporting standards are based on the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), as well as the interpretations issued by the Interpretations Committee (IFRIC). These financial statements are harmonized with the accounting principles generally accepted in Colombia enshrined in the Appendix to Decree 2420 of 2015 and its subsequent amendments.

The presentation of the financial statements in accordance with the 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 such estimates. Estimates and assumptions are constantly reviewed. The review of accounting estimates is recognized for the period in which they are reviewed if the review affects said period or in the review period and future periods. The estimates made by Management when applying the IFRS adopted in Colombia, which have a material effect on the financial statements, and those that imply significant judgments for the annual financial statements, are described in greater detail in Note 3 Significant accounting judgments, estimates and causes of uncertainty in the preparation of the financial statements.

EPM and each of the subsidiaries present separate or individual financial statements, as appropriate, for compliance with the control entities and for internal administrative monitoring and providing information to investors.

Assets and liabilities are measured at cost or amortized cost, except for certain financial assets and liabilities and 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 assets and liabilities at fair value through results, some equity investments at fair value through equity, as well as all financial derivative assets and recognized liabilities that are designated as hedged items in a fair value hedge, whose carrying amount is adjusted for changes in fair value attributed to the hedged risks.

2.2. Basis of consolidation

The consolidated financial statements include the financial statements of EPM and its subsidiaries as of December 31, 2023 and 2022. Using the global integration method, EPM consolidates the financial results of the companies over which it exercises control, which are detailed in Note 9 Investments in subsidiaries.

Control is obtained when any of the Group companies controls the relevant activities of the subsidiary, which are generally operating and financing activities, is exposed, or has rights, to the variable returns of the latter and has the ability to use its power on the subsidiary to influence its returns.

There is generally a presumption that a majority of the voting rights result in control. To support this presumption, and when the Group has less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances to assess whether it has power over an investee, including contractual arrangements with other voting holders of the investee, the rights derived from other contractual agreements and the voting rights of the Group as potential voting rights. The Group reassesses whether or not it controls the investee if the facts

and circumstances indicate that there are changes in one or more of the three elements of control.

The Group's consolidated financial statements are presented in Colombian pesos, which is both the functional currency and the presentation currency of EPM, the Group's parent company. Each subsidiary of the Group determines its own functional currency and includes the items in its financial statements using that functional currency.

The information of all the companies of the Group was prepared using the same accounting policies of the Group, according to the IFRS adopted in Colombia.

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

Assets, liabilities, equity, income, costs, expenses and intragroup cash flows are eliminated in the preparation of the consolidated financial statements; that is, those related to transactions between the Group Companies, including unrealized internal results, which are eliminated in full.

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 it ceases to control the subsidiary.

When the Group loses control over a subsidiary, the assets (including goodwill), liabilities, non-controlling interest and other components of equity are derecognized; any residual participation that is retained is measured at fair value, the gains or losses arising from this measurement are recognized in the result of the period.

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

Changes in the Group's interest in subsidiaries that do not result in the loss of control are accounted for as equity transactions. The carrying amount of the Group's controlling interests and the non-controlling interest is adjusted to reflect changes in their relative interests in the subsidiaries. Any difference between the amount by which the controlling interest, the non-controlling interest and the fair value of the consideration paid or received are adjusted, is recognized directly in equity.

When the Group loses control over a subsidiary, the profit or loss is recognized in the statement of profit or loss and is calculated as the difference between the sum of the fair value of the consideration received and the fair value of any interest retained and the previous carrying amount of the assets (including goodwill) and liabilities of the subsidiary and any non-controlling interest. All amounts related to the subsidiary, previously recognized in other comprehensive income, are accounted for as if the Group had directly disposed of its related assets or liabilities (that is, reclassified to profit or loss or transferred to another category of equity as permitted, by the applicable IFRS and adopted in Colombia). The fair value of the investment retained in the former subsidiary on the date control is lost is considered as the fair value at initial recognition for subsequent measurement, either as an investment in a financial instrument or an investment in a joint venture or in an associate.

2.3. Classification of assets and liabilities as current or non-current

An asset is classified as a current asset when it is held primarily for trading purposes or is expected to be realized within a period not exceeding one year after the reporting period or is cash and cash equivalents that are not subject to restrictions on their exchange or for their use in settling a liability at least one year after the reporting period. All other assets are classified as non-current assets.

A liability is classified as a current liability when it is held primarily for trading purposes, or when it is expected to be settled within a period not exceeding one year after the reporting period, or when the Group does not have an unconditional right to postpone its liquidation for at least one year after the reporting period. All other liabilities are classified as non-current liabilities.

Derivative instruments that are not subject to hedge accounting are classified as current or non-current, or separated into current and non-current portions, based on an evaluation of the facts and circumstances (that is, the underlying contractual cash flows):

- When the Group maintains a derivative, to which hedge accounting is not applied, for a period of more than twelve (12) months from the presentation date, the derivative is classified as non-current (or divided into portions current and non-current) to correspond to the classification of the underlying item.
- Derivative instruments that are designated as hedging instruments and that are effective are classified consistent with the classification of the underlying hedged item. The derivative instrument is divided into a current and a non-current portion only if such allocation can be made reliably.

2.4. Cash and cash equivalents

Cash and cash equivalents in the consolidated statement of financial position and in the consolidated statement of cash flows include cash on hand and at banks and highly liquid investments, readily convertible into a determined amount of cash and subject to an insignificant risk of changes in value, with a maturity of three months or less from the date of acquisition. Bank overdrafts that are an integral part of the Group's cash management represent a component of cash and cash equivalents in the consolidated statement of cash flows.

2.5. Investments in associates and joint ventures

An associate is an entity over which the Group has significant influence over financial and operating policy decisions, without having control or joint control.

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

At the acquisition date, the excess of the cost of acquisition over the portion of the net fair value of the identifiable assets, liabilities and contingent liabilities assumed of the associate or joint venture is recognized as goodwill. Goodwill is included in the carrying amount of the investment and is not amortized or individually tested for impairment.

Investments in associates and joint ventures are 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 subsequently adjusted for post-acquisition changes in the investor's portion of the entity's net assets. The Group's profit or loss for the period includes its share of the investee's profit or loss for the period and the Group's other comprehensive income includes its share of the investee's other comprehensive income. When there are changes in the percentages of ownership interest in the associate or joint venture that do not imply a loss of significant influence or joint control, the effect of these changes is recognized directly in equity. When the Group's share of losses of an associate or joint venture exceeds the Group's interest in the associate or joint venture (which includes any long-term interest that, in substance, forms part of the Group's net investment in the associate or joint venture), the Group discontinues recognizing its share of future losses. Additional losses are recognized to the extent that the Group has incurred any legal or constructive obligations or made payments on behalf of the associate

or joint venture. When the associate or joint venture subsequently earns profits, the company resumes recognizing its share of those profits only after its share of those profits equals its share of the unrecognized 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.

Dividends received from the associate or joint venture are recognized as a reduction in the value of the investment when the company's right to receive payment is established.

The Group periodically analyzes the existence of impairment indicators and if necessary, recognizes impairment losses on the investment in the associate or joint venture. Impairment losses are recognized in profit or loss for the period and are calculated as the difference between the recoverable amount of the associate or joint venture, being the higher of its value-in-use and its fair value less costs to sell, and its carrying amount.

When significant influence over the associate or joint control over the joint venture is lost, the Group measures and recognizes any residual investment in the associate or joint venture at fair value. The difference between the carrying amount of the associate or joint venture and the fair value of the retained residual investment, with the value arising from its sale, is recognized in 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 a joint venture, or when the investment is classified as held for sale. In addition, the Group records all amounts previously recognized in other comprehensive income in respect of that associate or joint venture on the same basis as would have been required if that associate or joint venture sold the financial assets or liabilities directly. Therefore, if a gain or loss previously recognized in other comprehensive income by the associate or joint venture would have been reclassified to profit or loss upon the sale of the related assets or liabilities, the Group would reclassify the gain or loss from equity to profit or loss (as a reclassification adjustment) at the time it discontinues the use of the equity method.

2.6. Joint operation

It is a joint arrangement whereby the parties with joint control of the arrangement have rights to the assets, and obligations for the liabilities, related to the arrangement.

In joint operations, the Group recognizes its participation as follows: its assets, including its participation in the assets held jointly; its liabilities, including its share of jointly incurred liabilities; its revenue from ordinary activities from the sale of its interest in the proceeds arising from the joint operation; its participation in the income from ordinary activities from the sale of the product carried out by the joint operation; and your expenses, including your share of expenses incurred jointly. The Group records the assets, liabilities, income from ordinary activities and expenses related to its participation in a joint operation in accordance with the guidelines applicable to assets, liabilities, income from ordinary activities and expenses.

2.7. Functional currency and foreign currency

The financial statements of the Group are presented in Colombian pesos, which is the functional and presentation currency of the parent company.

Transactions in foreign currency are initially recorded at the functional currency exchange rates in effect on the date of the transaction. Subsequently, monetary assets and liabilities in foreign currency are converted at the functional currency exchange rate in effect at the closing date of the period, non-monetary items that are measured at fair value are converted using exchange rates at the date on which their fair value is determined and the non-monetary items that are measured at historical cost are translated using the exchange rates in force at the date of the original transactions.

All exchange differences are recognized in income for the period, except for adjustments originating from capitalizable interest costs and 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 foreign businesses, including goodwill and any adjustment to the fair value of the assets and liabilities arising from the acquisition, are translated into Colombian pesos at the rate exchange rate in force at the closing date of the reporting period. Revenues, costs and expenses and cash flows are translated at the average exchange rates for the period.

Exchange differences arising from the conversion of foreign operations are recognized in other comprehensive income, as are exchange differences on long-term accounts receivable or payable that are part of the net investment in the Foreign. In the disposal of the foreign business, the item of other comprehensive income that is related to the foreign business is recognized in the period result.

The adjustments corresponding to goodwill and the fair value of identifiable assets and liabilities acquired generated in the acquisition of a business abroad are considered as assets and liabilities of said operation and are translated at the exchange rate in force at the end of each period on which is reported. The exchange differences that arise will be recognized in other comprehensive income.

Additionally, with respect to the partial disposal of a subsidiary (which includes a foreign operation), the entity will reattribute the proportional part of the accumulated amount of the exchange differences to the non-controlling interests and they are not recognized in profit or loss. In any other partial disposal (that is, partial disposal of associates or joint agreements that do not involve the loss of significant influence and joint control by the Group) the entity will reclassify to profit or loss only the proportional part of the accumulated amount of the differences in change.

2.8. Revenue from ordinary activities

Which is the provision of energy, gas, water supply and sanitation services, and is recognized when the service is provided or at the time of the delivery of goods, to the extent that performance obligations are met by the Group, when the service has been provided and has not been billed, the accrual of income is made as an estimate. Revenues are measured at the value of the consideration received or to be received, excluding taxes or other obligations. Discounts, customer compensation for quality of service and financial components that are granted, are recorded as an adjustment to the value of income. The financing component is only recognized if the contract with customers has a duration of more than one year.

The most representative revenues of the energy business in Colombia are as follows:

Reliability charge: remuneration paid to a generating agent for the availability of generation assets with the characteristics and parameters declared for the calculation of firm energy for the reliability charge - ENFICC, which guarantees compliance with the Firm Energy Obligation - OEF that was assigned in an auction for the assignment of firm energy obligations or in the mechanism that takes its place.

Long-term contracts: contract for the purchase and sale of energy entered between trading agents and generators that is settled in the energy exchange. Under this type of energy contract, generators and traders freely agree on quantities and prices for the purchase and sale of energy. electricity in terms of more than one day.

In the case of long-term energy purchase contracts, which have prices lower than those 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 benefits, it is considered that it does not comply with the own use exception.

Secondary firm energy market or secondary market: bilateral market in which generators negotiate a support contract among themselves to guarantee, for a certain period, the partial or total fulfillment of the firm energy obligations acquired by one of them.

Sale of non-regulated market energy: It is the energy that is sold in the market to customers whose maximum demand is greater than a value in MW (megawatt for its acronym in English) or a minimum monthly energy consumption in MWh (megawatt per hour per its acronym in English), defined by the regulatory entity, by legalized installation, from which it does not use public electricity transmission networks and uses it in the same property or adjoining properties. Your electricity purchases are made at prices freely agreed between the buyer and the seller.

Sale of regulated market energy: It is the energy that is sold to clients whose monthly consumption is less than a predetermined value and is not empowered to negotiate the price paid for it, since both concepts are established by regulation; It usually uses energy for its own consumption or as an input for its manufacturing processes and not to develop its commercialization activities.

Automatic generation regulation – AGC (for its initials in Spanish): it is a system for the control of secondary regulation, used to monitor load variations through generation, control the frequency within an operating range and scheduled exchanges. The AGC can be programmed in a centralized, decentralized, or hierarchical mode.

Firm energy: is the incremental contribution of a company's generation plants to the interconnected system, which is carried out with a reliability of 95 % and is calculated based on a methodology approved by the Commission and on the operational planning models used in the national interconnected system.

Gas revenues come from the distribution and sale of natural gas to the regulated and unregulated market.

In the water business, revenues come from the provision of aqueduct and sewage services.

The other countries where the Group provides its services, including energy services, have their own regulations, which are described for each country in the Legal and regulatory framework in note 1.

At the time of revenue recognition, the Group evaluates based on specific criteria to identify when it acts as principal or commission agent and thus determines whether revenue should be recognized gross or net for marketing activities.

2.9. Contract with customers

When the results of the contract can be measured reliably, the Group recognizes the income and expenses associated with contracts with customers, measuring the degree of progress in the satisfaction of the performance obligations using the input method based on the proportion that the incurred costs represent for work performed to date and the estimated total costs to completion.

The cost incurred comprises the costs, including borrowing costs, directly related to the contract, until the work has been completed. Administrative costs are recognized in income for the period.

On the other hand, the incremental costs incurred by the Group to obtain or fulfill contracts with customers are recognized as an asset in the statement of financial position under other assets and are amortized on a straight-line basis over the term of the contract, provided that the term of the contract exceeds one year. Otherwise, the Group recognizes it directly in the result of the period.

Payments received from the client before the corresponding work has been carried out are recognized as a liability in the statement of financial position as other liabilities.

The difference between the income recognized in the result of the period and the billing is presented as an asset in the statement of financial position called Trade debtors and other accounts receivable, or as a liability called other liabilities.

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

2.10. Premiums issued and acquisition costs

Premiums issued comprise the total premiums receivable for the coverage period. Income from premiums issued is recognized proportionally, throughout the duration of the policy; the income from these premiums is reduced by cancellations and annulments; In the case of cancellations, it corresponds to the amount of the premium accrued until the moment of cancellation due to the expiration of the term for payment.

Income from premiums accepted in reinsurance is accrued at the time of receiving the corresponding account statements from the reinsurers.

Unearned premiums are calculated separately for each individual policy to cover the remaining portion of premiums issued.

2.11. Deferred income reinsurance commission

The deferred commissions in the development of its reinsurance activity are recorded in the Group, where the income for the amounts collected is deferred from the commissions to the reinsurers for the cessions of premiums made each month. The reinsurer pays the ceding company a commission on the premiums it receives 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.

2.12. Reinsurance

The Group considers reinsurance as a contractual relationship between an insurance company and a reinsurance company, in which the former totally or partially transfers to the reinsurer the risk(s) assumed with its policyholders.

Premiums corresponding to ceded reinsurance are recorded in accordance with the conditions of the reinsurance contracts and under the same criteria as direct insurance contracts.

All accounts receivable and accounts payable generated in the relationship with the reinsurer are handled independently and are not subject to compensation.

2.13. Government grants

Government grants are recognized at fair value when there is reasonable assurance that they will be received, and all conditions attached to them will be met. Grants intended to offset costs and expenses, already incurred, without subsequent related costs, are recognized in income for the period in which they become payable. When the grant is related to an asset, it is recorded as deferred income and recognized in profit or loss on a systematic basis over the estimated useful life of the corresponding asset. The benefit of a state loan at a below-market interest rate is treated as a government grant, measured as the difference between the amounts received and the fair value of the loan based on the market interest rate.

2.14. Taxes

The tax structure of each country where the Group companies are located, the regulatory frameworks and the plurality of operations carried out by the companies make each company subject to national and territorial taxes, fees and contributions. They are obligations that arise from the Nation, the departments, municipal entities and other active subjects, once the conditions provided for in the corresponding issued regulations are met.

The most relevant taxes include income tax and sales tax:

Income tax

- **Current:** current assets and liabilities for income tax for the period are measured by the values that are expected to be recovered or paid to the tax authority. The income tax expense is recognized in the current tax according to the filtering carried out between the tax

income and the accounting profit or loss affected by the income tax rate of the current year and in accordance with the provisions of the tax regulations from the country. The tax rates and regulations used to compute these values are those that are enacted or substantially approved at the end of the reporting period, in the country in which the Group operates and generates taxable profits.

Taxable profit differs from profit reported in profit or loss due to income and expense items that are taxable or deductible in other years, and items that will not be taxable or deductible in the future.

Current assets and liabilities for income tax are also offset if they relate to the same tax authority and it is intended to settle them at net value or to realize the asset and settle the liability simultaneously.

- **Deferred:** deferred income tax is recognized using the liability method calculated on the temporary differences between the tax bases of assets and liabilities and their carrying amounts. Passive deferred tax is generally recognized for all taxable temporary differences, while active deferred tax is recognized for all deductible temporary differences and for future offsetting of unused tax credits and tax losses to the extent that future tax gains are likely to be available against which they can be allocated. Deferred taxes are not deducted.

Deferred tax assets and liabilities are not recognized if the temporary difference arises from the initial recognition of an asset or a liability in a transaction that does not constitute a business combination and that, at the time of the transaction, affected neither accounting profit nor tax gain or loss; and in the case of the deferred tax liability when it arises from the initial recognition of goodwill.

Deferred tax liabilities related to investments in subsidiaries, associates and interests in joint ventures are not recognized when the timing of the reversal of temporary differences can be controlled and it is probable that those differences will not be reversed in the near future. Deferred tax assets related to investments in subsidiaries, associates and interests in joint ventures are recognized only to the extent that it is probable that the temporary differences will be reversed in the near future, and it is probable that future taxable profits will be available against which These deductible differences will be charged.

The carrying amount of deferred tax assets is reviewed at each reporting date and is reduced to the extent that it is no longer probable that there will be sufficient taxable profit to use all or part of the deferred tax asset. Unrecognized deferred tax assets are reassessed at each reporting date and are recognized to the extent that it is probable that future tax gains will allow their recovery.

Deferred tax assets and liabilities are measured at the tax rates that are expected to be applied in the period in which the asset is realized, or the liability is canceled based on the tax rates and regulations that were approved at the presentation date. or whose approval procedure is close to being completed by that date. The measurement of deferred tax assets and liabilities will reflect the tax consequences that would arise from the way in which the entity expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

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

Deferred tax assets and liabilities are offset if there is a legally enforceable right to do so and they are with the same tax authority.

Deferred tax is recognized in income for the period, except for that related to items recognized outside income; in this case, it will be presented in the other comprehensive income or directly in equity.

For measuring deferred tax liabilities and deferred tax assets for investment properties that are measured using the fair value model, the carrying amount of such properties is presumed to be fully recovered through sale, unless the presumption is rebutted. The presumption is rebutted when the investment property is depreciable and is held within a business model whose objective is to consume substantially all the economic benefits generated by the investment property over time, and not through sale. The directors reviewed the Group's investment property portfolio and concluded that none of the Group's investment properties are held under a business model whose objective is to consume substantially all the economic benefits generated by the investment properties over time and not through sale. Therefore, the directors have determined that the presumption of "sale" established in the amendments to IAS 12 Income Tax applies.

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

Impuesto sobre las ventas - IVA

The companies of the Group located in Colombia, which make sales of movable property and provide taxable services or obtain exempt income from exports, are liable for the common regime of this tax; the sale or assignment of rights over intangible assets, associated with industrial property and the importation of tangible goods are also acts subject to VAT. Currently, in Colombia, energy, aqueduct, sewerage, public sanitation services, and public garbage collection services and household gas services are excluded from this tax.

The general rate is 19 % and there is a differential rate of 5 %.

In Colombia, in the generation of income excluded in the case of residential public services, the VAT paid on purchases is part of a higher cost value. Likewise, when taxable income is generated, that is, when taxable goods or services are sold, the VAT paid on the purchase or acquisition of inputs for these sales will be deductible from the value of the tax payable. When the company generates income that is excluded from VAT, but at the same time generates income that is exempt and taxed, it must make an apportionment of the VAT paid to determine the percentage of VAT to be deducted.

In Panama, the Tax on the Transfer of Material Goods and Services (ITBMS) is generated by the transfer of movable tangible property, the provision of services, the leasing of movable property located in the country and the importation of goods from abroad. The general tax rate is 7 %, but there are also 10 % and 15 % rates.

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

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

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

The value added tax (VAT) in Chile is applied to sales and other transfer operations of tangible movable and immovable property, except land; to the provision of services, provided or used in the country; to the import of goods; to withdrawals from inventory, contributions in kind and leasing of personal property; as well as the recurring or habitual sale of real estate, but the land is exempt, so it must be subtracted from the VAT tax base to determine the tax. The general tax rate is 19 %.

2.15. Property, plant, and equipment

Property, plant, and equipment are measured at cost, net of accumulated depreciation, and accumulated impairment losses if any. The cost includes the acquisition price, the costs directly related to the location of the asset in the place and the necessary conditions for it to operate in the manner intended by the Group, the costs for loans of the projects under construction that take a substantial period to be completed, if the recognition requirements are met, and the present value of the expected cost of dismantling the asset after use if the recognition criteria for a provision are met.

Construction in progress is measured at cost less any recognized impairment loss and includes those expenditures that are essential and directly related to the construction of the asset, such as professional fees, supervision, civil works, and, in the case of those qualifying assets,

borrowing costs are capitalized. Such construction in progress is classified into the appropriate categories of property, plant, and equipment at the time of its completion and when it is ready for use. The depreciation of these assets begins when they are ready for use according to the same basis as in the case of other items of property, plant, and equipment.

The Group capitalizes as a higher value of the assets, the additions or improvements made on them, if they meet any of the following conditions: a) they increase the useful life, b) they extend the productive capacity and operating efficiency of the same and c) reduce costs for the Group. All other repair and maintenance costs are recognized in the statement of comprehensive income as incurred.

Inventories of spare parts for specific projects, which are not expected to rotate in one year and meet the criteria to be capitalized, known as replacement assets, are presented under other property, plant, and equipment. They are depreciated considering the time spent in the warehouse and the technical useful life of the asset once its use begins.

Depreciation begins when the asset is available for use and is calculated on a straight-line basis over the estimated useful life of the asset as follows:

Plants, ducts and tunnels	
Civil work	50 to 100 years
Equipment	10 to 100 years
Networks, lines, and cables	
Electric transmission network	30 to 40 years
Power distribution network	30 to 40 years
Aqueduct network	40 to 80 years
Network Wastewater	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 subsidiary Emvarias that exhausts the land on which it carries out the final disposal activity due to the detriment it suffers with the disposal of solid waste, degradation and environmental recovery period that goes beyond 20 years.*

Useful lives are determined considering, among others, the manufacturer's technical specifications, the knowledge of the technicians who operate and maintain the assets, the geographical location, and the conditions to which it is exposed.

The Group calculates depreciation by components, which implies individually depreciating the parts of the asset that have different useful lives. The depreciation method used is 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 recognized is derecognized upon disposal or when future economic benefits are not expected from their use or disposal. The gain or loss at the time of derecognition of the asset, calculated as the difference between the net value of the disposal and the carrying amount of the asset, is included in the statement of comprehensive income.

Assets classified temporarily 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 required.

2.16. Leases

The determination of whether an arrangement constitutes or contains a lease is based on the substance of the arrangement at its commencement date, considering whether fulfillment of the arrangement requires the use of an asset and whether it transfers the right to control the use of that asset by a period of time, in exchange for a consideration.

On the start date of the lease contract, the Group acting as lessee recognizes an asset for right of use and a liability for lease, except for leases with a term of less than 12 months or those whose new value of the underlying asset is less than 15 (fifteen) current legal minimum wages (SMMLV for its Spanish initials).

The Group acting as lessor classifies the lease as operating or financial. A lease is classified as a finance lease when the risks and rewards inherent to ownership of the leased asset are substantially transferred to the lessee; otherwise, it is classified as an operating lease.

EPM Group as lessee

Right-of-use assets are recognized and presented as assets in the statement of financial position at the inception of the lease at cost, which includes the value of the lease liability, initial direct costs, payments made in advance, incentives, estimated decommissioning costs, among others. The corresponding liability is included in the statement of financial position as a lease liability, which is measured as the present value of future lease payments discounted using the interest rate implicit in the contract, if readily determinable, otherwise the Company's incremental borrowing rate is used. Future lease payments comprise fixed payments, variable payments, incentives receivable, residual value guarantees expected to be paid, the purchase option price and the payment of penalties for early termination of the contract.

Right-of-use assets are amortized over the useful life 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 an option to purchase the asset is not exercised, the asset is amortized only to the end of its useful life or lease term, whichever comes first.

Lease payments are divided between financial expenses and debt repayment. Financial charges are recognized in income for the period unless they can be directly attributable to qualifying assets, in which case they are capitalized in accordance with the Group's policy for borrowing costs. Variable lease payments, which depend on an index or a rate, are included in the measurement of the lease liability. Leases with a duration of less than 12 months or those whose new value of the underlying asset is less than 15 (fifteen) SMMLV are recognized as operating leases in the result of the period throughout the term of the lease.

EPM Group as lessor

Assets leased under financial leases are not presented as property, plant, and equipment since the risks associated with the property have been transferred to the lessee, instead, an account receivable is recognized for a value equal to the net investment in the lease.

When a lease agreement includes components of land and buildings together, the Group assesses the classification of each component separately as a financial 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 an operating lease.

Variable lease income, which depends on an index or rate, is included in the valuation of net lease investment.

The initial direct costs, such as commissions, fees, legal and internal costs that are incremental and directly attributable to the negotiation and contracting of the lease, are included in the measurement of the net investment in the lease at the beginning and are reflected in the calculation of the implicit interest rate.

When the lease is classified as an operating lease, lease payments are recognized as revenue on a straight-line basis or on another systematic basis, provided that it is more representative of the structure by which the benefit from the use of the underlying asset is diminished.

2.17. Borrowing costs

Borrowing costs that are directly attributable to the acquisition, construction, or production of an asset that necessarily take a substantial period of time to prepare for its intended use or sale, are capitalized as part of the cost of the respective assets until the asset is ready for its intended use. The income received for the temporary investment in specific pending loans to be consumed in qualifying assets is deducted from the costs for loans suitable for capitalization. All other borrowing costs are expensed in the period in which they are incurred. Borrowing costs consist of interest and other costs incurred by the Group in connection with borrowing funds. To the extent that the funds come from generic loans and are used to obtain a qualifying asset, the value of the costs eligible for capitalization is determined by applying a capitalization rate (weighted average of the costs for loans applicable to the general loans outstanding during the period) to the disbursements made on that asset.

The capitalization of borrowing costs begins on the date on which the following conditions are met:

- Disbursements are incurred in relation to the asset.

- Borrowing costs are incurred, and
- Activities necessary to prepare the asset for its intended use or for sale are carried out.

The capitalization of loan costs is suspended during periods in which the activities of a qualified asset are interrupted for periods greater than one year. However, the capitalization of borrowing costs is not interrupted for a period if important technical or administrative actions are being carried out. Capitalization of borrowing costs is also not suspended when a temporary delay is necessary as part of the process of preparing a qualifying asset for use or sale.

Capitalization of borrowing costs is completed when substantially all activities necessary to prepare the qualifying asset for use or sale have been completed. When the asset has components that can be used separately while construction continues, the capitalization of borrowing costs on such components is stopped.

2.18. Investment property

Investment property is land or buildings or part of a building or both, held to earn rentals or for capital appreciation (including investment property under construction for such purposes). Investment properties are initially measured at cost, including transaction costs. The carrying amount includes the cost of replacement or substitution of a part of an existing investment property at the time the cost is incurred if the recognition criteria are met and excludes the costs of daily maintenance of the investment property.

After initial recognition, investment properties are measured at fair value reflecting market conditions at the reporting date. Gains and losses arising from changes in the fair values of investment properties are included in the statement of comprehensive income in the section results for the period in the period in which they arise.

Investment properties are derecognized, either at the time of disposal, or when permanently withdrawn from use, and no future economic benefit is expected. The difference between the net value obtained from the disposal

and the carrying amount of the asset is recognized in the statement of comprehensive income in the section results for the period in the period in which it was written off.

Transfers to or from investment properties are made 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 subsequent accounting is the fair value at the date of the change in use. If a property, plant, and equipment become an investment property, it will be accounted for at its fair value, the difference between the fair value and the carrying amount will be recorded as a revaluation applying IAS 16 Property, plant, and equipment.

2.19. Intangible assets

Intangible assets acquired separately are initially measured at cost. The cost of intangible assets acquired in business combinations is their fair value at the acquisition date. After initial recognition, intangible assets are carried at cost less any accumulated amortization and any accumulated impairment loss. Intangible assets generated internally are capitalized if they meet the criteria for recognition as an asset and the generation of the asset must be classified into the research phase and development phase; If it is not possible to distinguish the research phase from the development phase, the disbursements must be reflected in the statement of comprehensive income in the period in which they are incurred.

The useful lives of intangible assets are determined as finite or indefinite. Intangible assets with finite useful lives are amortized over their economic useful life in a straight line and are evaluated to determine if they had any impairment in value, whenever there are indications that the intangible asset could have suffered such impairment. The amortization period and the amortization method for an intangible asset with a finite useful life are reviewed at least at the end of each period. Changes in the expected useful life or in the expected pattern of consumption of the future economic benefits of the asset are accounted for by changing the amortization period or method, as appropriate, and are treated as changes in accounting estimates. The expense for amortization of intangible assets with finite

useful lives is recognized in the statement of comprehensive income in the section results for the period in the category of expenses that is consistent with the function of the intangible asset.

Intangible assets with indefinite useful lives are not amortized, but rather are subject to annual tests to determine if they have suffered an impairment in value, either individually or by cash-generating unit - CGU. The indefinite life assessment is reviewed annually to determine if the indefinite life is still valid. If it is not, the change of useful life from indefinite to finite is made prospectively.

The useful lives of intangible assets are:

Similar concessions and rights	Depending on the term of the contract
Easements	Indefinite
Capitalized development costs	Indefinite
Software and computer applications	Indefinite/Finite 3 to 5 years
Licenses	Indefinite/Finite 3 to 5 years
Rights	Depending on the term of the contract
Other intangible assets	Indefinite/Finite 7 to 15 years

An intangible asset is derecognized upon disposal, or when no future economic benefits are expected from its use or disposal. The gains or losses that arise are measured by the difference between the value obtained in the disposal and the carrying amount of the asset, and are recognized in the statement of comprehensive income, section results for the period.

Research and development costs

Research costs are expensed as incurred. Disbursements for development in an individual project are recognized as an intangible asset when the Group can demonstrate:

- The technical feasibility of finalizing the intangible asset so that it is available for use or sale.
- Your intention to complete the asset and your ability to use or sell the asset.
- How the asset will generate future economic benefits, considering, among others, the existence of a market for the production generated by the intangible asset or for the asset itself, or the usefulness of the asset for the entity.

- The availability of technical and financial resources to complete the asset and to use and sell it.
- The ability to reliably measure disbursement during development.

In the statement of financial position, the asset for disbursements for development is recognized from the moment in which the element meets the conditions for its recognition established above, and they are recorded at cost less accumulated amortization and accumulated losses due to impairment of value.

When the development of an intangible asset related to a power generation project begins, the costs are accrued as construction in progress.

Asset amortization begins when development is complete, and the asset is available for use. It is amortized over the period of expected future economic benefit. During the development period, the asset is tested annually to determine if its value is impaired.

Research costs and development costs that do not qualify for capitalization are recorded as expenses in the statement of comprehensive income, results for the period section.

Goodwill

Goodwill represents the difference between the cost of a business combination and the fair value at the time of acquisition of the assets acquired, the liabilities assumed and the contingent liabilities of the acquiree.

Goodwill is not amortized, is measured at cost less any accumulated impairment loss and is subject to annual impairment tests or more frequently when there are indicators of impairment. Value impairment losses are recognized in the statement of comprehensive income in the section results for the period.

For CGUs that have goodwill assigned, value impairment is evaluated annually, which implies the calculation of the value-in-use of the CGUs to which it is being assigned. The calculation of the value-in-use requires the determination of the future cash flows that must arise from the CGUs and an appropriate discount rate to calculate the present value. When actual future cash flows are less than expected, an impairment loss may arise.

2.20. Financial instruments

Financial instrument is a contract that gives rise to a financial asset in one entity and, simultaneously, to a financial liability or capital instrument in another entity.

Financial assets and liabilities are recognized in the statement of financial position when the Group becomes a party in accordance with the contractual conditions of the instrument.

2.20.1. Financial assets

The Group initially recognizes its financial assets at fair value. Transaction costs directly attributable to the financial asset are added to or deducted from their fair value if they are subsequently measured at amortized cost or fair value through other comprehensive income or are recognized 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 at fair value (through other comprehensive income or through profit or loss) depending on the Group's business model for managing the financial assets and the characteristics of the contractual cash flows of the instrument.

- **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.

  Investments made to optimize liquidity surpluses are included, that is, all those resources that are not immediately allocated to the development of the activities that constitute the corporate purpose of the company. The investment of excess liquidity is made under the criteria of transparency, security, liquidity and profitability, under the guidelines of adequate control and under market conditions without speculative spirit (EPM General Management Decree 2015-DECGGL-2059 of February 6 of 2015).

Gains and losses arising from changes in fair value are included in the statement of comprehensive income under Financial Income or Expenses, in the period in which the mentioned changes in fair value occur.

Dividend income is recognized when the Group's right to receive payment is established.

At the same time, the Group can irrevocably designate a financial asset as measured at fair value through profit or loss.

- **Financial assets at fair value with changes in other comprehensive income**

Assets measured at fair value with changes in other comprehensive income are classified as debt instruments that are held under a business model whose objective is to hold to collect the contractual cash flows and then sell the instruments, in addition, the instrument grants, on specific dates, cash flows that correspond solely to payments of principal and interest on the value of the outstanding principal.

Variations 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 recognized in profit or loss for the period.

The Group has made the irrevocable election to present in other comprehensive income the subsequent changes in the fair value of some investments in equity instruments that are not held for trading. Dividends from this type of investment are recognized in income for the period when the right to receive payment is established.

In the disposal 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 income for the period.

- **Financial assets at amortized cost**

A financial asset is subsequently measured at amortized cost using the effective interest rate[2] if the asset is held within a business model

[2] *The effective interest rate method is a method of calculating the amortized cost of a financial asset and allocating revenue over the relevant period. The effective interest rate is the discount rate that exactly matches the future cash flows of 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, at its book value at initial recognition.*

whose objective is to hold it to obtain the contractual cash flows and the contractual terms of the same that grant, on specific dates, cash flows that are solely payments of principal and interest on the principal value outstanding.

Impairment of financial instruments

At each reporting date, the Group recognizes value adjustment for expected credit losses on financial assets that are measured at amortized cost or at fair value with changes in other comprehensive income, including accounts receivable from leases, contract assets or loan commitments. and financial guarantee contracts to which the value impairment requirements are applied during the life of the asset.

Expected credit losses are estimated considering the probability that a bad debt loss may or may not occur and are recognized as a gain or loss in profit or loss for the period against a lower value of the financial asset. The Group assesses the credit risk of accounts receivable on a monthly basis at the time of reporting to determine the value adjustment for expected credit losses on financial assets and whether the general or simplified approach is used.

The Group assesses on a collective basis the expected losses for financial assets that are not individually significant. When the collective evaluation of expected losses is carried out, accounts receivable is grouped by similar credit risk characteristics, which allow identifying the debtor's payment capacity, in accordance with the contractual terms of negotiation of the account receivable.

The Group determines that the credit risk of a client increases significantly when there is a breach of the financial agreements by the counterparty, or when internal information or information obtained from external sources indicates that payment by the debtor is unlikely, without considering the guarantees held.

Non-compliance with the agreements is generally measured in accordance with what is indicated in the service provision contracts and the regulations of the subsidiary in each country, however, there are individual agreements or contracts that indicate non-compliance immediately, the obligation is no longer met.

The Group determines that a financial asset is credit-impaired when there is a breach of the financial agreements by the counterparty, or when internal information or information obtained from external sources indicates that payment by the debtor is unlikely, without considering the guarantees maintained.

Credit risk is affected when there are changes in financial assets, the Group's policy to reassess the recognition of credit losses is: when there is a breach of financial agreements by the counterparty; o Information developed internally or obtained from external sources indicates that the debtor is unlikely to pay its creditors, in full, without regard to the collateral maintained. The Group derecognizes the financial asset when there is information indicating that the counterparty is in severe financial difficulties and there is no realistic prospect of recovery, for example, where the counterparty has been placed into liquidation or has commenced bankruptcy proceedings or, in the case of accounts receivable, when the amounts exceed two years in arrears, whichever comes first.

Impaired financial assets may continue to be subject to collection execution activities under the Group's recovery procedures, considering legal collection where appropriate. The recoveries made are recognized in income for the period.

Derecognition of financial assets

A financial asset or part of it is derecognized from the statement of financial position when it is sold, transferred, expires or the Group loses control over the contractual rights or the cash flows of the instrument.

The Group derecognizes a financial asset when there is information indicating that the counterparty is in severe financial difficulties and there are no realistic prospects for recovery, when the counterparty has been put into liquidation or has initiated bankruptcy proceedings or, in the case of accounts receivable, when amounts exceed two years past due, whichever occurs first.

If the Group does not transfer or retain substantially all the risks and rewards inherent to ownership and continues to retain control of the transferred asset, the Group recognizes its share in the asset and the associated obligation for the amounts it would have to pay, likewise, if

the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognize the financial asset and also recognizes a collateralized loan for the income received.

In the total derecognition of a financial asset measured at fair value through profit or loss, the difference between the carrying amount of the asset and the sum of the consideration received and to be received is recognized in profit or loss for the period. For financial assets measured at fair value through other comprehensive income, the difference between the carrying amount of the asset and the sum of the consideration received and receivable is recognized in profit or loss for the period, and the gain or loss that would have been recognized in other comprehensive income is reclassified to retained earnings.

Credit refinancing

When the contractual cash flows of a financial asset are renegotiated or otherwise modified and the renegotiation or modification does not result in the derecognition of that financial asset in accordance with IFRS 9 adopted in Colombia, the Group recalculates the gross carrying amount of the financial asset and recognizes a change gain or loss in profit or loss for the period. The gross carrying amount 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 credit quality-adjusted effective interest rate for credit impairment financial assets purchased or originated) or, where applicable, the revised effective interest rate. Any costs or fees incurred adjust the carrying amount of the modified financial asset and are amortized over the remaining duration of the modified financial asset.

2.20.2. Financial liabilities

On initial recognition, the Group measures financial liabilities at fair value. The transaction costs directly attributable to the acquisition or obtaining of the financial liability are deducted from their fair value if these are

subsequently measured at amortized cost or are recognized in the result of the period if the liabilities are measured at their fair value. Subsequently, financial liabilities are measured as follows:

- At fair value through profit or loss, include liabilities held for trading, financial liabilities designated at the time of initial recognition as at fair value through profit or loss, and derivatives. Gains or losses on liabilities held for trading are recognized in profit or loss for the period. On initial recognition, the Group designated financial liabilities as at fair value through profit or loss.
- At amortized cost, they are measured using the effective interest rate. Gains and losses are recognized in income for the period.

Compound instruments

Financial instruments that contain both a liability and an equity component (compound financial instruments) are recognized and accounted for separately. Therefore, for the initial measurement, the liability component is determined by the fair value of 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 amortization costs, interest, and dividends. The equity component retains the initial recognition measurement.

Financial guarantee contracts

Financial guarantee contracts issued by the Group are those that require a specific payment to be made to reimburse the holder for the loss incurred when a specified debtor defaults on its payment obligation, in accordance with the terms of a debt instrument. Financial guarantee contracts are initially recognized as a liability at fair value, adjusted for transaction costs directly attributable to the issuance of the guarantee. Subsequently, the liability is measured at the higher of (i) the amount of the allowance for expected losses and (ii) the initially recognized value less the cumulative value of recognized income.

Derecognition of financial liabilities

A financial liability or part of a financial liability is derecognized from the statement of financial position when the contractual obligation has been settled or has expired.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or if the terms 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 carrying amounts is recognized in profit or loss.

The terms will be substantially different if the present value of the cash flows under the new terms, including any fees paid net of any fees received, discounted at the original effective interest rate, differs by at least 10 % from the present value of the cash flows remaining on the original financial liability.

In determining fees paid net of fees received, the Company includes only fees paid or received between the Company and the lender, including those paid or received by one on behalf of the other or vice versa.

In the event that the changes are not material, the Group recalculates the gross carrying amount of the financial liability and recognizes a gain or loss on modification in profit or loss for the period. The gross carrying amount of the financial liability is recalculated as the present value of the modified or renegotiated contractual cash flows that are discounted at the original effective interest rate of the financial liability or, where appropriate, the revised effective interest rate. Any costs or fees incurred adjust the carrying amount of the modified financial liability and are amortized over the remaining life of the liability.

2.20.3. Equity instruments

An equity instrument consists of any contract that evidences a residual interest in the assets of an entity, after deducting all its liabilities. Equity instruments issued by Group companies are recognized by the income received, net of direct issuance costs.

The repurchase of the Group companies' own equity instruments is recognized and deducted directly in equity, which means that no gain or loss is recognized in the results from the purchase, sale, issue, or cancellation of the equity instruments. assets of the Group companies.

2.20.4. Derivative financial instruments

A financial derivative is an instrument whose value varies in response to changes in a variable such as an interest rate, exchange rate, the price of a financial instrument, a credit rating, or an index. This instrument does not require an initial investment or is less 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, such as forward contracts, futures contracts, financial swaps (swaps), and options to hedge various financial risks, mainly the risk of interest rate, exchange rate, and price of basic products (commodities). Such derivative financial instruments are initially recognized at their fair value on the date the derivative contract is entered into and are subsequently remeasured at their fair value. Derivatives are recorded as financial assets when their fair value is positive, and as financial liabilities when their fair value is negative, in the statement of financial position.

Commodity contracts that meet the definition of a derivative but are entered into in accordance with the Group's expected purchase requirements, are recognized in profit or loss as cost of sales.

Any gain or loss arising from changes in the fair value of derivatives is recognized directly in income for the period, except for those that are under hedge accounting.

In general, derivatives embedded in host contracts are treated as separate derivatives as long as they meet the definition of a derivative, and their risks and characteristics are not closely related to those host contracts and the contracts are not measured at fair value through changes in results. However, the derivatives embedded in contracts where the host is

a financial asset within the scope of IFRS 9 adopted in Colombia are never separated. 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 formally designates and documents the hedging relationship to which it wishes to apply hedge accounting and the risk management objective and strategy for 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 will assess the effectiveness of changes in the fair value of the hedging instrument in offsetting the exposure to changes in the fair value of the hedged item or in the cash flows attributable to the hedged risk. Hedges are expected to be highly effective in offsetting changes in fair value or cash flows, and for this purpose they are continually evaluated throughout the reporting periods for which they were designated.

For hedge accounting purposes, hedges are classified and accounted for as follows, once the strict criteria for their accounting are met:

- **Fair value hedges,** when they hedge the exposure to changes in the fair value of recognized assets or liabilities or unrecognized firm commitments.

  The change in the fair value of a derivative that is a hedging instrument is recognized in the result of the period as financial cost or income. The change in the fair value of the hedged item attributable to the hedged risk is recorded as part of the carrying amount of the hedged item and is also recognized in profit or loss as financial cost or income.

  For fair value hedges that relate to items carried at amortized cost, adjustments to carrying amount are amortized through profit or loss over the remaining term to maturity. Amortization of the effective interest rate may begin as soon as there is an adjustment to the carrying amount of the hedged item but must begin no later than when the hedged item is no longer adjusted for changes in its fair value attributable to the risk being considered. covering. Amortization of carrying amount adjustments is based on the recalculated effective interest rate on the amortization start date. If the hedged item is derecognized, the unamortized fair value is recognized immediately in profit or loss for the period.

When an unrecognized firm commitment is designated as a hedged item, the subsequent cumulative change in the fair value of the firm commitment attributable to the hedged risk is recognized as an asset or liability with its corresponding gain or loss recognized in profit or loss.

- **Cash flow hedges,** when they cover the exposure to the variation in cash flows attributed, either to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction, or to the exchange rate risk in a commitment unrecognized firm.

The purpose of cash flow hedge accounting is to recognize in other comprehensive income the changes in the fair value of the hedging instrument to apply them to the income statement when and at the rate that the hedged item affects them.The portion of the gain or loss on the hedging instrument that is determined to be an effective hedge will be recognized in equity within other comprehensive income.

The effective part will be equal (in absolute terms) to the value that is less between:

- The difference between the fair value at the time of valuation and the inception date of the hedging instrument; and,
- The difference between the fair value (present value) of the expected future cash flows of the hedged item at the measurement date and at the commencement date

The ineffective part of the gain or loss of the hedging instrument will be recognized in the result of the period.

The ineffective part shall be the difference between:

- The difference between the fair value at the time of valuation and the inception date of the hedging instrument; and
- The effective part of the coverage.

The measurement of the effectiveness of the hedges is carried out monthly.

The amounts recognized in other comprehensive income are reclassified to income for the period when the hedged transaction affects the result, as well as when the hedged financial income or expense is recognized, or when the forecast transaction takes place. When the hedged item constitutes the cost of a non-financial asset or liability, the values recognized in other comprehensive income are reclassified to the initial carrying amount of the non-financial asset or liability. If the forecast transaction or firm commitment is no longer expected to occur, the cumulative gain or loss previously recognized in other comprehensive income is reclassified to profit or loss.

If the hedging instrument expires or is sold, terminated, or exercised without successive replacement or renewal of one hedging instrument with another hedging instrument, or if its designation as a hedge is revoked, any cumulative gain or loss previously recognized on the other comprehensive income remains in the other comprehensive income until the planned operation or firm commitment affects the result.

- **Hedges of a net investment abroad,** when they cover the exposure to the volatility in the conversion of foreign operations to the presentation currency of the Group associated with the exchange rate risk.

  The objective of the net investment hedge in foreign currency is to cover the exchange rate risks that a Principal or Intermediate Holding Company that has business abroad may have on the impact on the conversion of financial statements from the functional currency to the currency of presentation. The foreign currency net investment hedge is a hedge of the foreign currency exposure, not a fair value hedge of changes in the value of the investment.

  Effectiveness and ineffectiveness are accounted for in a similar way to cash flow hedges.

  Gains or losses on the hedging instrument that are related to the effective portion of the hedge are recognized in other comprehensive income, while any gain or loss related to the ineffective portion is

recognized in profit or loss. Upon disposition of the business abroad, the accumulated value of the gains or losses recorded in the other comprehensive income is reclassified to profit or loss.

2.20.5. Offset of financial instruments

Financial assets and liabilities are offset so that the net value is reported in the statement of financial position, only if (i) there is, at the present time, a legally enforceable right to offset the recognized values, and (ii) there is an intention to liquidate them at net value, or to realize the assets and cancel the liabilities simultaneously.

2.21. Inventories

Goods acquired with the intention of selling them in the ordinary course of business or consuming them in the process of rendering services are classified as inventories.

Inventories are valued at cost or net realizable value, whichever is lower. Net realizable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and estimated costs necessary to affect the sale.

Inventories include merchandise in stock that does not require transformation, such as energy, gas and water meters and supplies. They include materials such as minor spare parts and accessories for the provision of services and goods in transit and in the possession of 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 bring them to their current condition and location.

2.22. Impairment of non-financial assets

At each reporting date, the Group assesses whether there is any indication that a tangible or intangible asset may be impaired in value. The Group estimates the recoverable value of the asset or CGU, at the time it detects an indication of impairment, or annually (as of November 30 and it is reviewed if there are relevant or significant events presented in December that merit analysis and inclusion in the calculation of the impairment) for intangible assets with indefinite useful lives and those not yet in use.

The recoverable value of an asset is the higher of the fair value less costs to sell, whether of an asset or a CGU, and its value-in-use is determined for an individual asset, unless the asset does not generate cash flows. cash that are substantially independent of those of other assets or groups of assets, in this case the asset must be grouped into a CGU. When a reasonable and consistent basis of distribution is identified, common/corporate assets are also allocated to individual CGUs or distributed to the smallest group of CGUs for which a reasonable and consistent basis of distribution can be identified. When the carrying amount of an asset or a CGU exceeds its recoverable value, the asset is considered impaired and its value is reduced to its recoverable amount.

In calculating value-in-use, the estimated cash flows, whether from an asset or a CGU, are discounted to their present value using a pre-tax discount rate that reflects market considerations of the time value of money and the asset-specific risks. To determine fair value less costs to sell, an appropriate valuation model is used.

Value impairment losses are recognized in the statement of comprehensive income in the section results for the period in those expense categories that correspond to the function of the impaired asset. Impairment losses attributable to a CGU are assigned proportionally based on the carrying amount of each asset to the non-current assets of the CGU after exhausting goodwill. The CGU is the smallest identifiable group of assets that generates cash inflows in favor of the Group, which are largely independent of the cash flows derived from other assets or groups of assets. In the Group, CGUs were defined considering: 1) the existence of

income and costs for each group of assets, 2) the existence of an active market for the generation of cash flows and 3) how they are managed and monitored. the operations. For the purposes of assessing value impairment losses, assets are grouped into the following CGUs:

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
Caribemar de la Costa S.A.S. E.S.P. (AFINIA)	
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)	
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.	

Subsidiary	CGU
Inmobiliaria y Desarrolladora Empresarial de América S.A. (IDEAMSA)	
Empresas Públicas de Medellín E.S.P. (EPM)	Gas
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.	Sanitation
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.	
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 Varias de Medellín S.A. E.S.P.	
Proyectos de Ingeniería Corporativa S.A. de C.V.	
Tecnología Intercontinental S.A. de C.V. TICSA	

Subsidiary	CGU
Gestión de Empresas Eléctricas S.A. (GESA)	Others
Innova Tecnología y Negocios S.A. de C.V.	
Maxseguros EPM Ltd.	
Promobiliaria S.A.	

Impairment of value for goodwill is determined by evaluating the recoverable value of each CGU (or group of CGUs) to which the goodwill is related. Impairment losses related to goodwill cannot be reversed in future periods.

For assets in general, excluding goodwill, at each reporting date an assessment is made as to whether there is any indication that previously recognized impairment losses no longer exist or have decreased. If there is such an indication, the Group calculates an estimate of the recoverable value of the asset or the CGU. A previously recognized impairment loss is only reversed if there has been a change in the assumptions used to determine the recoverable value of an asset since the last time the impairment loss was recognized. The reversal is limited so that the asset's carrying amount does not exceed its recoverable amount, nor does it exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset. in previous years. Such reversal is recognized in the statement of comprehensive income in the section results for the period.

2.23. Provisions

Provisions are recorded when the Group has a present legal or implicit obligation because of a past event. It is likely that the Group will have to dispose of resources embodying economic benefits to settle the obligation, and a reliable estimate of the value of the obligation can be made. In cases where the Group expects the provision to be reimbursed in whole or in part, the reimbursement is recognized as a separate asset, but only in cases where such reimbursement is practically certain, and the

amount of the asset can be measured reliably. reliability. In the Group, each provision is used only to meet the disbursements for which it was originally recognized.

Provisions are measured by management's best estimate of the disbursements required to settle the present obligation, at the end of the reporting period, considering the corresponding risks and uncertainties. When a provision is measured using the estimated cash flow to settle the present obligation, its carrying amount corresponds to the present value of said cash flow, using for the discount a rate calculated with reference to the market yields of the bonds issued by the National Government of the country in which the subsidiary is located. In Colombia, the yield of the TES Bonds (public debt securities issued by the General Treasury of the Nation) at the end of the reporting period must be used.

The expense corresponding to any provision is presented in the statement of comprehensive income in the section results for the period, net of any reimbursement. The increase in the provision due to the passage of time is recognized as a financial expense.

Dismantling cost provision

The Group recognizes as part of the cost of a fixed asset, whenever there is a legal or implicit obligation to dismantle or restore, the estimate of the future costs in which the Group expects to incur to carry out the dismantling or restoration and its counterpart the recognized as a provision for Dismantling or restoration costs. The cost of dismantling is depreciated over the estimated useful life of the fixed asset.

Dismantling or restoration costs are recognized at the present value of the expected costs to settle the obligation using estimated cash flows. Cash flows are discounted at a pre-tax rate, which must be determined by reference; for subsidiaries in Colombia, in terms of risk-free rates, the yield of TES Bonds (public debt securities issued by the General Treasury of the Nation) is used; For the subsidiaries in Panama, the market yields of the bonds issued by the National Government are used, and in El Salvador for the rate of loans with a term of more than 1 year to companies, an average rate of the banking financial system (the yield of the notes of the Government is temporarily not considered a risk-free rate due to the deterioration of the credit quality of the country).

Estimated future costs for Dismantling or restoration are reviewed annually. Changes in estimated future costs, in the estimated dates of disbursements or in the discount rate applied are added to or deducted from the cost of the asset, not to exceed the carrying amount of the asset. Any excess is recognized immediately in the result of the period. The change in the value of the provision associated over time is recognized as a financial expense in the statement of comprehensive income in the section results for the period.

Onerous contracs

The Group recognizes present obligations arising from an onerous contract as provisions and their balancing entry is in the statement of comprehensive income in the profit or loss for the period section. An onerous contract is one in which the unavoidable costs of fulfilling the obligations it entails exceed the economic benefits expected to be received from it. The unavoidable costs are those that reflect the lower net costs of honoring the contract, i.e., the lower value between the net cost of complying with its clauses and the value of any compensation or penalties arising from non-compliance.

Contingent liabilities

Possible obligations arising from past events and the existence of which will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not entirely under the control of the Group or present obligations arising from past events but not it is probable, if not possible, that an outflow of resources that includes economic benefits will be required to settle the obligation or the amount of the obligation cannot be measured with sufficient reliability, they are not recognized in the statement of financial position and, instead, are disclosed as contingent liabilities. Contingent liabilities arising from a business combination are recognized at fair value at the acquisition date.

Contingent assets

Assets of a possible nature, arising as a result of past events, whose existence has to be confirmed only by the occurrence, or in its case by the non-occurrence, of one or more uncertain events in the future, which are not entirely under the control of the Group, are not recognized in the statement of financial position, instead they are disclosed as contingent assets when their occurrence is probable. When the contingent event is

true, the asset and the associated income are recognized in income 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 reporting periods, such contingent assets are measured at the higher of the amount that would have been recognized and the amount initially recognized less recognized accumulated amortization.

2.24. Employee benefits

2.24.1. Post-employment benefits

Defined contribution plans

Contributions to defined contribution plans are recognized as expenses in the statement of comprehensive income in the section results for the period at the time the employee has rendered the service that gives him the right to make the contributions.

Defined benefit plans

Post-employment benefit plans are those in which the Group has a legal or constructive obligation to respond for the payment of benefits for which it is responsible.

For defined benefit plans, the difference between the fair value of plan assets and the present value of the plan obligation is recognized as an asset or liability in the statement of financial position. The cost of providing benefits under the defined benefit plans is determined separately for each plan, through the actuarial valuation method of the projected credit unit, using actuarial assumptions at the date of the reporting period. Plan assets are measured at fair value, which is based on market price information and, in the case of listed securities, is the published purchase price.

Actuarial gains or losses, return on plan assets and changes in the effect of the asset ceiling, excluding from these values included in net interest on the net defined benefit liability (asset), are recognized in the other Integral result. Actuarial gains or losses comprise the effects of changes in actuarial assumptions, as well as experience adjustments.

Net interest on the net defined benefit liability (asset) comprises interest income on plan assets, interest costs on the defined benefit obligation and interest on the effect of the asset ceiling and is recognized in profit or loss of the period.

The cost of current service, the cost of past service, any liquidation or reduction of the plan is recognized immediately in the statement of comprehensive income in the section results for the period in which they arise.

2.24.2. Short-term benefits

The Group classifies as short-term employee benefits those obligations with employees, which it expects to settle within the twelve months following the end of the accounting period in which the obligation was generated, or the service was provided. Some of these benefits are generated by current labor regulations, by collective agreements or by non-formalized practices that generate implicit obligations.

The Group recognizes short-term benefits at the time the employee has rendered his services as:

A liability, for the value that will be paid to the employee, deducting the amounts already paid previously, and its counterpart as an expense for the period, unless another chapter requires or allows the inclusion of payments in the cost of an asset or inventory, for example, if the payment corresponds to employees whose services are directly related to the construction of a work, these will be capitalized to that asset.

The amounts already paid in advance correspond, for example, to salary advances and per diem advances, among others, which, if they exceed the corresponding liability, the Group must recognize the difference as an asset in the expense account paid in advance, to the extent that the

payment in advance gives rise to a reduction in payments to be made in the future or to a cash refund.

In accordance with the foregoing, the accounting recognition of short-term benefits is made at the time the transactions occur, regardless of when they are paid to the employee or third parties to whom the Group has entrusted the provision of certain services.

2.24.3. Long-term benefits

The Group classifies as long-term employee benefits those obligations that it expects to settle after the twelve months following the end of the accounting year or the period in which the employees provide the related services, that is, from the thirteenth month onwards; they are different from short-term benefits, post-employment benefits, and termination benefits.

The Group measures long-term benefits in the same way as post-employment defined benefit plans. Although its measurement is not subject to the same degree of uncertainty, the same methodology for its measurement shall be applied as follows:

- The Group shall measure the surplus or deficit in a long-term employee benefit plan, using the technique applied for post-employment benefits for both the estimation of the obligation and the assets of the plan.
- The Group shall determine the value of net long-term employee benefits (liabilities or assets) by finding the deficit or surplus of the obligation and comparing the asset cap.
- Changes in the measurement of long-term employee benefits are recognized in the income statement.

The benefits received by employees year after year throughout their working lives should not be considered "long-term", if at the close of the accounting year of each year the Group has delivered them in full.

2.24.4. Termination benefits

The Group recognizes as termination benefits, the consideration granted to employees, payable as a result of the company's decision to terminate an employee's employment contract before the normal retirement date or the decision of an employee to accept voluntary resignation in exchange for those benefits.

2.25. Reserves reinsurance activities

The assets and liabilities for reinsurance contracts represent for the Group the best estimate of the future collections and payments to be made for the risks assumed and ceded in the reinsurance obligations; which are measured and recognized through technical reserves:

2.26. Technical reserves

2.26.1. Unearned premium subscribed and ceded reserve

They are constituted for the fulfillment of future obligations derived from the commitments assumed and assigned in the current policies. They correspond to the portion of the premium that, at the calculation date, has not been recognized 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 divided by the number of days the policy is in force, multiplied by the number of days corresponding to the time the risk has not been run on the calculation date. Likewise, the part of the reserve corresponding to the retrocession is calculated, considering the premium that has been assigned.

2.26.2. Reserve of losses or claims notified

This reserve is a provision of money that the Group must set up to cover the costs derived from claims already reported and pending payment. Its purpose is to establish adequate reserves to guarantee the payment of claims that have not been resolved during the accounting year. This reserve is constituted per claim, on the date in which the insurer becomes aware of the occurrence of the claim and corresponds to the best technical estimate of its cost. The amount of the reserve constituted is readjusted to the extent that more information is available and if there are reports from internal or external liquidators. The reserve includes the settlement expenses incurred to address the claim, including the costs of attorneys' fees for those claims that are in court.

2.26.3. Reserve for unreported incurred losses (IBNR)

It represents an estimate of the number of resources that the Group must allocate to meet future payments of claims that have already occurred at the date of calculation of this reserve, but have not been notified or for which there is not enough information. To calculate this reserve, the following methodologies are used: the Bornhuetter - 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) a final loss estimate based on actual claims experience to date. The first is based on

a measure of exposure, such as premiums or the number of policies. The second is based on claims paid or incurred to date. The two estimates are combined using a formula that gives more weight to the experience-based estimate as time goes on. The Chain Ladder method is a standard actuarial method that can be applied to premiums, claims paid, reserves for ongoing claims or claims incurred, or number of claims. The method involves analysis of historical claim development factors (the ratio of amounts accrued in one development period to the previous development period). Based on this analysis, a development pattern is selected which is used to estimate future claims/premium development.

2.26.4. Liabilities adequacy test

The technical provisions recorded by the Group are regularly subject to a reasonableness test to determine their sufficiency. If, because of the test, it is revealed that they are insufficient, they are adjusted with a charge to the result for the period.

2.27. Service concession arrangements

The Group recognizes service concession arrangements in accordance with the requirements of the IFRIC interpretation 12 Service Concession Arrangements.

This interpretation is applicable for concessions in which:

- The grantor controls or regulates what services the operator must provide with the infrastructure, to whom it must provide them, and at what price.
- The grantor controls, through ownership, right of use or otherwise, any significant residual interest in the infrastructure at the end of the term of the agreement.

The Group does not recognize these infrastructures as property, plant, and equipment, it recognizes the consideration received in the contracts that

meet the above conditions at fair value, as an intangible asset to the extent that the Group receives a right to charge users of the service, as long as these rights are conditional on the degree of use of the service, or as a financial asset, to the extent that there is an unconditional contractual right to receive cash or another financial asset, either directly from the assignor or from a third party. In cases where the Group is paid for construction services, partly through a financial asset and partly through an intangible asset, each component of the consideration is accounted for separately.

Financial assets of service concession arrangements are recognized in the consolidated statement of financial position and subsequently measured at amortized cost, using the effective interest rate. The evaluation of the impairment of these financial assets is carried out in accordance with the policy of impairment of financial assets.

Intangible assets from service concession arrangements are recognized in the consolidated statement of financial position as intangible assets called "intangible assets from service concession arrangement" and are amortized on a straight-line basis over the term thereof.

Revenue from ordinary activities and costs related to operating services are recognized in accordance with the accounting policy for revenue from ordinary activities and services related to construction or improvement services in accordance with the accounting policy for construction contracts. The contractual obligations assumed by the Group for the maintenance of the infrastructure during its operation, or for its return to the transferor at the end of the concession arrangement under the conditions specified therein, to the extent that it does not involve an activity that generates income, It is recognized following the accounting policy for provisions.

2.28. Fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly

observable or estimated using another valuation technique. A fair value measurement of a non-financial asset shall consider the market participant's ability to generate economic benefits by using the asset to its fullest and best use or by selling the asset to another market participant who would use the asset to its fullest and best use.

To determine the fair value, the Group considers the characteristics of the asset or liability in the same way that market participants would consider when setting the price of said asset or liability on the measurement date. Fair value for measurement and disclosure purposes in the financial statements is determined on that basis, except for share-based payment transactions, lease transactions, and measurements that have certain similarities to fair value but are not fair value, such as net realizable value or value-in-use. The fair value of all financial assets and liabilities is determined at the date of presentation of the financial statements, for recognition and disclosure in the notes to the financial statements.

The fair value is determined:

- Based on quoted prices in active markets for identical assets or liabilities that the Group can access on the measurement date (level 1).
- Based on inputs applied to valuation methodologies commonly used by market participants, which are different from quoted prices that are observable for assets or liabilities, directly or indirectly (level 2).
- Based on internal cash flow discount valuation techniques or other valuation models, using variables estimated by the Group that are unobservable 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 greater detail of their measurement.

2.29. Operating segment

An operating segment is a component of the Group that develops business activities from which it can obtain income from ordinary activities and incur costs and expenses, about which financial information is available and whose operating results are regularly reviewed by the highest authority. in the Group's operating decision-making, which is the Board of Directors to decide on the allocation of resources to the segments and the Management Committee to evaluate their performance.

The financial information of the operating segments is prepared under the same accounting policies used in the preparation of the Group's consolidated financial statements.

2.30. Dividends and surpluses in cash distributed to the shareholders and owner of the Group

The Group recognizes a liability to make distributions to shareholders and owners of the Group in cash when the distribution is authorized and is no longer at the Group's discretion. The corresponding amount is recognized directly in equity.

2.31. Changes in accounting estimates, policies and errors

2.31.1. Changes in accounting policies

During 2023, the accounting practices applied in the Group's consolidated financial statements are consistent with 2022, except for the following changes:

New standards implemented

During 2023, the Group implemented the changes accepted by Resolutions 035 and 197 of 2021, issued by the General Accounting Office of the Nation, which incorporate the changes in IFRS (new standards, amendments or interpretations), issued by the International Accounting Standards Board (IASB), which are mandatory for the annual period beginning on or after January 1, 2023.

IAS 1 - Presentation of Financial Statements—Classification of Liabilities as Current or Non-current

This amendment issued in January 2020, clarifies that the classification of liabilities as current or non-current is based on the rights that existed at the end of the reporting period, it specifies that the classification as current or non-current liabilities is not affected by the expectations about whether or not the entity will exercise the right to defer settlement of the liability, specifies that the rights exist if payment arrangements have been met at the end of the reporting period; Additionally, the amendment clarifies that the settlement of a liability refers to the transfer to the counterparty of cash, equity instruments or other economic resources.

The modification to IAS 1 will be mandatory for annual periods beginning on or after January 1, 2023, retroactively. Permit your anticipate app.

The group did not identify any impacts from the adoption of this amendment.

IAS 1 - Disclosure of accounting policies and IFRS Practice Statement 2.

This amendment issued in February 2021, requires companies to disclose significant accounting policy information rather than a description of their accounting policies. The amendment also makes an adjustment to Practice Statement 2 Making Materiality Judgments regarding how to apply the concept of materiality to disclosures of accounting policies and adjusts paragraph 21 of IFRS 7 Disclosures of Financial Instruments, specifying the disclosure of significant accounting policies.

The amendment will be mandatory to apply prospectively for annual periods beginning on or after January 1, 2023. Early application is permitted.The group did not identify any impacts from the adoption of this amendment.

IFRS 4 - Extension of the Temporary Exemption from the Application of IFRS 9

This amendment issued in June 2020, aims to achieve the alignment of the expiration date of the temporary exemption by delaying the application of IFRS 9 and the effective date of IFRS 17 that replaces IFRS 4, given that the IASB concluded that the benefit of expanding the availability of the exemption to continue allowing some insurers to apply IFRS 17 and IFRS 9 for the first time at the same time outweighs the disadvantages of the additional delay of the application of IFRS 9.

The amendment to IFRS 4 adds paragraphs 20A, 20J and 20O, and also made modifications to the Basis for Conclusions of said IFRS by adding footnotes at the end of paragraphs BC267, BC275 and BC276 and adding paragraphs BC277A to BC277C.

The modification to the aforementioned paragraphs allows further extension of the temporary exemption from not applying IFRS 9 for periods beginning before January 1, 2023, the date on which IFRS 17 comes into effect replacing IFRS 4, and in its default may

temporarily apply, before said date, IAS 39 Financial Instruments: Recognition and Measurement.

The Group did not identify impacts from the adoption of this amendment, because as a reinsurance company it has been applying IFRS 4 and as of the date of the amendment IFRS 9 had already been implemented.

IAS 8 - Definition of accounting estimates

This amendment issued in February 2021, updates the definition of accounting estimates in order to differentiate changes in estimates from changes in accounting policies, given their prospective or retroactive effect, respectively. To do this, it indicates that accounting estimates are monetary amounts in the financial statements that are subject to measurement uncertainty. Sometimes the application of accounting policy will require the application of estimates.

The amendment is mandatory to apply prospectively for annual periods beginning on or after January 1, 2023. Early application was permitted.

The Group is not impacted by this amendment because it has been applying the definition of accounting estimates under the same criteria as specified in the amendment.

IAS 12 - Deferred tax related to assets and liabilities arising from a single transaction

This amendment issued in April 2021, clarifies that the exception brought by IAS 12 of not applying deferred tax when an asset or liability is initially and simultaneously recognized, which generates equal temporary differences, would not apply in the case of leases. (IFRS 16) and in the dismantling (IAS 37 and IAS 16), cases in which, if IAS 12 must be applied for deferred tax. The

added paragraph 22A provides that, depending on the applicable tax legislation, equal taxable and deductible temporary differences may arise on the initial recognition of the asset and liability in such a transaction. The exemption provided by paragraphs 15 and 24 does not apply to such temporary differences and an entity recognizes any resulting deferred tax liabilities and assets. This amendment is mandatory for annual reporting periods beginning on or after January 1, 2023. Early application was permitted.

The Group is not impacted by this amendment because it has been applying this interpretation.

2.31.2. Application of new and revised standards

The changes to the IFRS (new standards, modifications, and interpretations), which have been published in the period, but which have not yet been implemented by the group, are detailed below:

Standard	Mandatory Application Date by IASB	Exchange rate
IFRS 17 - Insurance Contract	January 1, 2023 Not incorporated in Colombia by the public sector	Standard
IFRS 17 - Insurance Contract - Initial application with IFRS 9 and comparative information	January 1, 2023 Not incorporated in Colombia by the public sector	Amendment
IAS 12 - International Tax Reform—Pillar Two Model Rules	January 1, 2023 Not incorporated in Colombia by the public sector	Amendment
IFRS 16 - Leases - Lease liability on a sale-lease	January 1, 2024	Amendment
IAS 1 - Presentation of Financial Statements - Non-current liabilities with agreed terms	January 1, 2024	Amendment
IAS 7 and IFRS 7 - Supplier financing agreements	January 1, 2024	Amendment
IAS 21 - Effects of Changes in Foreign Currency Exchange Rates - Lack of Interchangeability	January 1, 2025	Amendment

IFRS 17 Insurance Contract

Issued in May 2017, replacing IFRS 4 which was addressed as an interim standard, which was being developed in phases.

IFRS 17 solves the comparison drawbacks generated by the application of IFRS 4, since it was allowed to apply local standards and historical values in insurance contracts, now with this new standard, all insurance contracts will be recorded in a consistent manner and at current values, generating more useful information for stakeholders. This will allow a better understanding of the financial position and profitability of insurance companies, providing a more uniform approach to presentation and measurement for all insurance contracts.

Initially, IFRS 17 was defined as mandatory for annual periods beginning on or after January 1, 2021 but, at the request of international insurers, the IFRS Foundation, through the amendment issued in June 2020, extended its application for two additional years, to be enforceable for annual periods beginning on or after January 1, 2023. Early application was allowed if IFRS 9 is applied. It has not been incorporated in Colombia for public sector companies.

The group is evaluating the impacts that could be generated by the application of this amendment, although it is estimated that the future adoption will not have an impact on the financial statements since this type of transaction is not presented.

IFRS 17 – Insurance Contract - Initial application with IFRS 9 and comparative information

Issued in December 2021, in order to reduce temporary accounting mismatches between financial assets and insurance contract liabilities that may arise in the comparative information presented by the initial application of IFRS 17, when IFRS 9

also applies to the entity, overlapping classification of the financial asset is permitted, in order to improve the usefulness of comparative information for investors.

This will allow insurers to have an option for the presentation of comparative information on financial assets. The classification overlay allows the entity to align the classification and measurement of a financial asset in the comparative information with what the entity expects the classification and measurement of that financial asset to be performed in the initial application of IFRS 9, considering the business model and the characteristics of the cash flow it generates. Any difference for this application would go to retained earnings.

If, for example, using classification overlap, an entity presented a financial asset previously measured at amortized cost rather than measured at fair value through profit or loss, the carrying amount of that asset on the date of transition to IFRS 17 would be its fair value measured on that date. Applying paragraph C28D of IFRS 17, any difference in the carrying amount of the financial asset at the transition date resulting from the application of the classification overlap would be recognized at the opening of retained earnings.

This amendment adds paragraphs C28A to C28E and C33A; and became effective on the initial implementation date of IFRS 17, which is January 1, 2023. It has not been incorporated in Colombia for public sector companies.

The Group is evaluating the impacts that could be generated by the application of this amendment, although it is estimated that the future adoption will not have an impact on the financial statements given that this type of transaction is not presented.

IAS 12 - International Tax Reform—Pillar Two Model Rules

This amendment was issued in May 2023 with the purpose of aligning the content of IAS 12 with the implementation of rules of Pillar Two Model Rules published by the Organisation for Economic Co-

operation and Development (OECD), which establishes at the global level the creation of an "additional and complementary minimum national tax" that will be applied to profits in any jurisdiction as long as the effective tax rate, determined on a jurisdictional basis, is lower than the minimum rate of 15 % required by Pillar Two thus avoiding the erosion of the tax base in international transactions operating in a digitalised economy. Each jurisdiction will determine its second pillar legislation for tax purposes.

This amendment aims to improve the usefulness of the information to the investor through the realization of three key disclosures and in turn, while evolving and knowing the effects of this pillar worldwide on organizations and the market, an exception to recognize and disclose deferred tax assets and liabilities generated by Pillar Two can be temporarily applied. The disclosures set forth in the paragraphs of the standard are: 88A – The entity must disclose whether it applied the Pillar Two exception in the deferred tax (assets and liabilities); 88B – The entity must separately disclose the income and expenses of Pillar Two in the current tax; 88C and 88D – The entity shall disclose the possible impacts or exposure of the entity to the Pillar Two in case there are standards (firm drafts or standards) but are not yet in force, providing qualitative and quantitative information according to the example given in the standard.

The amendments are effective as per the paragraphs, for paragraphs 4A and 88A immediately with retroactive application under IAS 8 and paragraphs 88B to 88D retroactively as of January 1, 2023. It has not been incorporated in Colombia for public sector companies.

The Group is evaluating the impacts that could be generated by the application of this amendment, although it is estimated that the future adoption will not have an impact on the financial statements since this type of transaction is not presented.

IFRS 16 - Leases - Lease liability on a sale-lease

It is intended to establish the accounting for a sale of a leaseback asset after the transaction date of the sale.

The amendment specifies the requirements that a seller-lessee must use to quantify the lease liability that arises on the sale and subsequent lease so that the seller-lessee does not recognize any gains or losses related to the right of use that it retains. The amendment is intended to improve the recording requirements for sale and lease under IFRS 16, as IFRS 16 did not specify the measurement of liabilities arising in a sale-lease transaction.

This change will not change the posting of leases that do not arise in a sale transaction with a subsequent lease.

The amendment adds paragraphs 102A, C1D and C20E and amends paragraph C2. A new heading is added before paragraph C20E. New text is underlined, and deleted text is crossed out.

The Group is evaluating the impacts that could be generated by the application of this amendment, although it is estimated that the future adoption will not have an impact on the financial statements since this type of transaction is not presented.

The amendment will be mandatory prospectively for annual periods beginning on or after January 1, 2024. Early application is permitted.

IAS 1 - Presentation of Financial Statements - Non-current liabilities with agreed terms

This amendment was issued in October 2022 with the purpose of improving the information that companies provide on long-term debt with financial conditions, also known as "covenants", so that

the investor can understand the risk they face when a company has liabilities with agreed conditions and that are classified as non-current, but that due to non-compliance with the covenants, the debt must be repaid within twelve months, for which a company is required to disclose information about these agreements in the notes to the financial statements, improving the information provided on long-term debt with agreed terms, allowing investors to understand the risk that such debt may become repayable early. Accordingly, this amendment requires an entity to review its loan agreements in order to determine whether the classification of the loan agreements will change on the cut-off date, based on the circumstances, data and contexts available at that time, under an informed judgment, and not on management's expectations as set out in paragraphs 74 and 75A. .

The amendment adds paragraphs 72B, 76ZA and 139W and amends paragraphs 60, 71, 72A, 74 and 139U. It makes adjustments to the previous amendment to IAS 1 published in January 2020 entitled "Classification of Liabilities as Current or Non-Current" and requires a simultaneous application of these last two amendments in the same period. .

If an entity applies such modifications for a prior period after the issuance of Non-Current Covenanted Liabilities (see paragraph 139W), it shall also apply Non-Current Covenanted Liabilities for that period. If an entity applies the classification of Liabilities as Current or Non-Current for a prior period, it will disclose that fact.

The amendments are effective for annual periods beginning on or after 1 January 2024 retroactively in accordance with IAS 8, with early adoption permitted.

The Group is evaluating the impacts that could be generated by the application of this amendment, although it is estimated that the future adoption will not have an impact on the financial statements since it is not expected to occur.

IAS 7 and IFRS 7 - Supplier Financing Agreements

Amendment published in May 2023 to enable users to obtain from financial statements the information they need to understand the effects of supplier financing arrangements on an entity's financial statements and compare entities with others.

The disclosures are intended to provide users with information that allows them to assess how supplier financing arrangements affect an entity's liabilities and cash flows and to understand the effect of supplier financing arrangements on an entity's exposure to liquidity risk and how the entity might be affected if the arrangements were no longer available to it.

The amendment states that arrangements that are solely credit enhancements to the entity (e.g., financial guarantees, including letters of credit used as collateral) or instruments used by the entity to settle amounts owed directly with a supplier (e.g., an entity uses a credit card to settle the amount owed to a supplier and, instead, you will have an obligation to pay the issuing bank) are not supplier financing arrangements.

This amendment requires entities to provide information on these financial obligations arising from specific supplier agreements, including details such as expected settlement timelines, important contractual terms, and any other relevant elements related to these agreements.

The Group is in the process of assessing the potential impacts of the implementation of this amendment.

IAS 21 – Effects of Changes in Foreign Currency Exchange Rates - Lack of Interchangeability

This amendment, issued in August 2023, aims to establish a consistent approach when assessing whether a currency is convertible to another currency and if not, what procedure to apply when the conversion does not occur and what type of disclosures must be provided in order to provide useful financial information.

The amendment establishes that a currency is convertible to another currency if there is an exchange for another currency in an administratively normal delay, under a market or exchange mechanism that allows for the generation of enforceable rights or obligations and its amount is not negligible.

The conversion of the currency is given at the time of measurement or for a specific purpose, for which two steps are applied: evaluating whether the currency is convertible and estimating the spot exchange rate. This is given through an assessment question whether the currency is convertible, which, if so, applies the requirements set out in IAS 21 and if not, a spot exchange rate estimate is applied, which represents the exchange rate used in an immediate delivery transaction and between market participants.

The amendment to IAS 21 is mandatory for annual periods beginning on or after January 1, 2025, it does not apply to the restatement of comparative information that rather guidelines are given in its replacement and its early application is allowed

The Group is evaluating the impacts that could be generated by the application of this amendment, although it is estimated that future adoption will have no impact on the financial statements.

2.32. Presentation Changes

During the 2023 period, changes were made in the presentation of some items of the consolidated statement of financial position, for comparative purposes the comparative figures presented as of December 31, 2022 are also adjusted, these changes do not affect decision-making, since they mainly consist of reclassifications between items of the same financial statement and are intended to facilitate the reading of the same by users.The items reclassified were as follows:

Concept	Current presentation	Previous presentation	2023	2022
Statement of financial position				
Revenue received in advance	Creditors and others accounts payable	Other liabilities	5,275,962	5,361,571
	Other liabilities	Creditors and others accounts payable	1,905,281	1,819,672

- Amounts stated in millions of Colombian pesos -

Note 3.

Significant accounting judgments, estimates and causes of uncertainty in the preparation of the financial statements

The following are the significant judgments and assumptions, including those that involve accounting estimates, that the Group's management used in the application of the accounting policies under IFRS adopted in Colombia, and that have a significant effect on the values recognized in the consolidated financial statements.

The estimates are based on historical experience and based on the best information available on the facts analyzed at the cut-off date. These estimates are used to determine the value of assets and liabilities in the consolidated financial statements when it is not possible to obtain said value from other sources. The Group evaluates its estimates regularly. Actual results may differ from these estimates.

The significant estimates and judgments made by the Group are described below:

- **Evaluation of the existence of impairment indicators for assets, goodwill, and asset valuation to determine the existence of impairment losses.**

  On each reporting date, the status of the assets is reviewed to determine if there are indications that any of them have suffered an impairment loss. If there is an impairment loss, the asset's recoverable amount is affected; if the estimated recoverable amount is lower, it is reduced to its recoverable value and the impairment loss is recognized immediately in profit or loss for the period.

  The evaluation of the existence of value impairment indicators is based on external and internal factors, and in turn on quantitative and qualitative factors. The evaluations are based on financial results, the legal, social and environmental environment and market conditions; significant changes in the scope or manner in which the asset or CGU is used or expected to be used and evidence of the obsolescence or physical deterioration of an asset or CGU, among others.

  Determining whether goodwill has been impaired involves calculating the value-in-use of the CGUs to which it has been assigned. The calculation of the value-in-use requires the entity to determine the future cash flows that should arise from the CGUs and an appropriate discount rate to calculate the present value. When actual future cash flows are less than expected, an impairment loss may arise.

  See note 8 | Impairment of assets

- **The assumptions used in the actuarial calculation of post-employment obligations with employees.**

  The assumptions and hypotheses used in actuarial studies include: Demographic assumptions and financial assumptions, the former refer to the characteristics of current and past employees, are related to the mortality rate and turnover rates among employees, the latter relate to the discount rate, future wage increases, and changes in future benefits.

  See note 25 | Employee benefits

- **The useful life and residual values of property, plant and equipment and intangibles.**

  In the assumptions and hypotheses used to determine the useful lives of property, plant and equipment and intangibles, technical aspects such as: periodic maintenance and inspections performed on assets, failure statistics, environmental conditions and operational environment are considered. protection systems, replacement processes, obsolescence factors, manufacturer recommendations, climatic and geographical conditions and the experience of the technicians who know the assets. To determine the residual value, aspects such as: market values, reference magazines and historical sales data are considered.

  See note 5 | Property, plant and equipment

  See note 7 | Goodwill and other intangible assets

- **The assumptions used to calculate the fair value of financial instruments, including credit risk.**

  The Group discloses the fair value corresponding to each class of financial instrument in a manner that allows comparison with the carrying amounts. Macroeconomic projections calculated within the Group company are used. The investment portfolio is valued at market price. When this is absent, a similar one is sought in the market and if not, the following assumptions are used.

  - Derivatives are estimated at fair value

    See note 24 | Derivatives and hedges

  - Accounts receivables are estimated at the prevailing market rate for similar loans.

    See note 12 | Trade debtors and other accounts receivable

  - Accounts receivable from employees are valued similarly to mass debtors, except for housing loans.

    See note 12 | Trade debtors and other accounts receivable

- For equity investments, the methodology is cash flow; it is estimated at market price for those listed on the stock exchange.

See note 13 | Other financial assets

- **The probability of occurrence and the value of liabilities of uncertain value or contingent.**

The assumptions used for uncertain or contingent liabilities include the qualification of the legal process by the "expert opinion" of the professionals in the areas, the type of contingent liability, possible legislative changes and the existence of jurisprudence of the high courts that are applied to the specific case, the existence within the Group of similar cases, the study and analysis of the merits of the matter, the guarantees existing at the time of the occurrence of the facts. The Group discloses and does not recognize in the financial statements those obligations classified as possible; obligations classified as remote are not disclosed or recognized.

See note 27 | Provisions, contingent assets, and liabilities

- **Future disbursements for dismantling and asset retirement obligations.**

In the assumptions and hypotheses used to determine future disbursements for dismantling and asset retirement obligations, aspects such as: estimation of future disbursements in which the Group must incur for the execution of activities associated with dismantling of the assets on which legal or implicit obligations have been identified, the initial date of dismantling or restoration, the estimated date of completion and the discount rates

See note 27 | Provisions, contingent assets, and liabilities

- **Determination of the existence of financial or operating leases based on the transfer of risks and benefits of the leased assets**

The significant assumptions that are considered for the determination of the existence of a lease include the evaluation of the conditions if the right to control the use of the asset is transferred for a period of time in exchange for a consideration, that is, the existence of an

identified asset; the right to obtain substantially all of the economic benefits from the use of the asset throughout the period of use; the right to direct how and for what purpose the asset is used throughout the period of use; right to operate the asset throughout the period without changes in the operating instructions.

See note 14 | Leases

- **The recoverability of deferred tax assets.**

The deferred tax asset in the Group has been generated by temporary differences, which generate future tax consequences in the financial situation of the Group companies. These differences are fundamentally represented in tax assets that exceed the assets under IFRS adopted in Colombia, and in tax liabilities, lower than the liabilities under IFRS adopted in Colombia, as is the case of the components of the pension liability, amortized cost of bonuses, finance lease and other sundry provisions and for contingencies.

The deferred tax asset generated by each Group Company is recovered in the net income taxed on the current income tax of the Group Company that generated it to the extent that it is likely to be recovered, i.e. it is likely that in the future there will be a tax benefit against which it can be used

See note 40 | Income Tax

- **Determination of impairment of trade receivables**

To calculate the expected credit loss, each obligation is assigned an individual probability of non-payment that is calculated based on a probability model that involves sociodemographic, product, and behavioral variables.

The model will be applied based on the table of scores (Scorecard) developed taking into account the information of each company in the Group. The models are defined according to the information available and the characteristics of the population groups for each one. Although the methodology applies to all accounts with a balance, some exclusions should be considered, such as: charged-off accounts; self-consumption; contributions; public lighting and in general charges from third parties. For its calculation, the moment

from which an obligation is considered to have been breached and will not be recovered is previously defined.

To calculate the credit loss of trade and other accounts receivable (except trade receivables from related parties) the following formula is used:

$$PE = SE \times PI \times PDI$$

Where, **Exposed Asset Balance (SE):** corresponds to the capital balance, interest balance, and other current charges of the obligations.

Probability of Default (PI): ccorresponds to the result of a statistical model that provides the probability that each account defaults in the following twelve months. This individual probability is located within a range found to attenuate the fluctuations in the value of the general provision from one month to the next and stabilize its behavior, which results in a standard **PI by range.**

Loss due to default (PDI): this is defined as the economic deterioration that the entity would incur in the event of any of the default situations materializing. It is a percentage obtained as a result of the historical analysis of the defaulted balances and their respective monthly collection, which is applied to the population according to their payment behavior. Based on the result of the impairment, the forward looking effect is defined, evaluating the relationship between the total value of the impairment and the behavior of macroeconomic variables; To this end, estimated lower and upper limits are established for the forecasted period where the real value of the provision is compared with the forecasted value and in the case of deviations outside the confidence limits, adjustments would be made with the assumptions of the market or macroeconomic scenario.

See note 12 | Trade Receivables and Other Accounts Receivable

Revenue estimate

The Group recognizes revenue from the sale of goods and the rendering of services to the extent that the performance obligations are satisfied by the Group, regardless of the date on which the corresponding invoice is prepared, to make this estimate the

information of the contracts or agreements with customers is taken and thus the value to be recognized in revenue is established.

When there is uncertainty about the moment in which the revenue should be recognized, the Group decides to recognize it at the moment in which the performance obligation is fulfilled, for those performance obligations that are satisfied over time, it is common to use the resource method calculated as executed costs compared to estimated costs.

For concepts other than the provision of residential public services, the Group estimates and recognizes the value of revenue from the sale of goods or provision of services based on the terms or conditions of interest rate, term, among others, of each contract that causes the sale.

In the month after the estimated revenue is registered, its value is adjusted by the difference between the value of the actual revenue already known against the estimated revenue.

See note 31 | Income from ordinary activities

Risks and uncertainty arising from climate change

Considerating that the largest participation in the energy market that EPM has in Colombia is from hydraulic generation that can be affected by climate changes, currently in the business financial scheme we have a risk coverage called "Climate Derivative" whose objective is to have with the protection coverage of the risk in income due to the occurrence of extreme climatic events that affect the rainfall and therefore the contractual commitments of energy generation. Likewise, it serves to protect exposure to risk due to purchases on the energy exchange in said periods, which consequently also increases.

It is important to note that under this coverage, all the impact that the company could receive due to non-generation and non-compliance with contractual commitments is transferred to the reinsurance market.

Operating segments

To determine the operating segments, the information that is regularly provided to the highest decision-making authority of the Group is based on the information and the segmentation of this information

is identified. Once these segments have been identified, the capacity of the identified groups to generate revenue and incur costs and expenses is analyzed. Likewise, it is verified if the highest decision-making authority reviews the returns and allocates resources based on this segmentation, finally, it is examined if there is disaggregated financial information that supports this segmentation. In addition to the above factors, the Group's approach and management are analysed in order to consider possible segments that may arise in the future, according to its strategy.

See note 46 | Operating Segments

Note 4.

Significant transactions carried out and other relevant aspects that occurred during the period

As of December 31, 2023, significant transactions and other relevant aspects that occurred during the period, other than those of the Group's normal course of business, are related to:

4.1. Expenses and other expenses related to the contingency of the Ituango hydroelectric power plant:

- The progress of the works for the commissioning of the Project continues according to the proposed schedules.

- Hidroituango is 92.56 % complete (December 31, 2022: 90.35 %).
- Cost and progress of the construction of the Ituango Hydroelectric Power Plant for $6,750,357.

See note 5

With regard to the contingency, the Group has recognized the following items in its consolidated financial statements as of December 31, 2023:

- Litigation provision balance of $37,584 for the care of those affected in Puerto Valdivia, for compensation for consequential damages, loss of earnings and moral damages, due to the rising waters of the Cauca River as a result of the blockage of the project on April 28, 2018. During 2023, the provision was adjusted by $6,730 as a provision expense and financial expense, and payments have been made for $3,285.

See note 27.1.5.

- Litigation provision balance of $38,656 for environmental and social contingency, established by the specific action plan for the recovery of the parties affected by the events of the blockage of the Cauca River diversion tunnel that the project had on April 28, 2018 and by the closure of gates that decreased the flow of the river downstream of the project. During 2023, the provision was adjusted by $10,832 as a provision expense and financial expense and payments have been made for $28,373

See note 27.1.1.

- During 2023, the provision for non-compliance to the transporter Intercolombia for the months following the entry into operation of the connection infrastructure of the Ituango hydroelectric plant has been adjusted by $9,566 for recovery income and $6,119 for financial expense and payments have been made for $102,607. On the cut-off date, the obligation was met and the balance of the provision remained at zero.

See note 27.1.4.

- Litigation provision balance of $447,576 corresponding to group actions of downstream communities affected by the contingency. During 2023, the provision has been adjusted by $81,821 for provisioning and financial expense and $317 as recovery income, no payments have been made.
- Balance of litigation provision - Penalty clause of Milestone 7, derived from the arbitration award Hidroituango - EPM, in which EPM is ordered to pay for the concept of "Penal Clauses of Enforcement for Breach of Milestones". In December 2023, provision for $781,829 was recognized.
- In addition, other expenses of $482 and $24 have been recognized in the comprehensive income statement during 2023 as recovery income for the care of the community affected by the contingency.

4.2. Arbitration Tribunal instituted by Sociedad Hidroeléctrica Ituango against EPM:

Within the framework of the Arbitral Tribunal instituted by Sociedad Hidroeléctrica Ituango S.A. E.S.P – Hidroituango – Hidroituango – against EPM, on December 7, 2023, the award was issued, in which it was declared that EPM had breached the BOOMT ***(Build, Own, Operate, Maintain and Transfer)*** Contract. As a result of the declaration of non-compliance, the Court ruled that EPM is obliged to assume the costs, increased costs and expenses of all kinds, including financial expenses due to the cause or occasion of the collapse of the diversion work called Auxiliary Diversion System - SAD - and its Auxiliary Diversion Gallery - GAD - (called Contingency Costs). until its complete overcoming and restitution. This means that EPM will not be able to transfer these costs to be incorporated into the actual cost of the project for the purposes of calculating the remuneration to Hidroituango; however, this did not imply any recording in the Financial Statements.

In addition, the Arbitral Tribunal ordered EPM to pay Hidroituango $781,829 million pesos, for the concept of the "Penal Clauses of Enforcement for Breach of Milestones". Specifically, non-compliance with Milestone 7 of the BOOMT Contract, relating to the "closing of gates and beginning of the filling of the reservoir", was declared. The Court indicated that this sum of money could be paid, at EPM's option, in money or be discounted as a lower cost of the project for the purposes of calculating the remuneration. After a rigorous analysis, EPM decided and communicated to Hidroituango on December 22, 2023, that it chose to pay the sum, as a lower value of the project cost for the purposes of calculating the remuneration. This obligation was recognized in EPM's Financial Statements as of December 2023 as a provisioned expense in the comprehensive income statement and as a provisioning liability in the statement of financial position. In this way, with the information in force to date, there is no impact on the company's liquidity in the medium term and no additional sources of financing are required.

4.3. Construction of the final civil works of Hidroituango (generation units 5 to 8):

On December 20, 2023, the order was given to start the CYS Consortium (made up of: Yellow River CO., LTD Sucursal Colombia and Schrader Camargo S.A.S.), which was selected through the CW 276532 process and awarded on October 11, for an approximate value of 1 trillion seventy-five billion pesos and will have an execution period of 1,125 calendar days.

Note 5.

Property, plants and equipment, net

The following is a detail of the carrying amount of property, plant, and equipme:

Property, plant, and equipment	2023	2022
Cost	61,754,128	58,954,033
Accumulated depreciation and impairment loss	(15,149,618)	(14,772,416)
Total	**46,604,510**	**44,181,617**

- Amounts stated in millions of Colombian pesos -

The following is a detail of the carrying value of property, plant, and equipment temporarily out of service:

Properties, plant, and equipment temporarily out of service	2023	2022
Networks, lines, and cables	13,980	6,540
Plants, ducts, and tunnels	43,704	46,623
Lands and buildings	17,279	17,524
Machinery and equipment	201	226
Communication and computer equipment	4	5
Other Properties, plant, and equipment	30	1
Total properties, plant, and equipment temporarily out of service	**75,198**	**70,919**

Amounts stated in millions of Colombian pesos-

The Group owns properties, plant and equipment that have been withdrawn from use and that have not been classified as non-current assets held for sale corresponding to: for EPM, the Sonson1 and Sonson2 plants, which are projected to come into operation on February 27, 2025, the Rio Piedras plant, which went from Generation to Water Supply, whose business strategy is to recover the mini power plant, the Cucarachos Los Naranjos pumping station that is expected to have a modernization, the land of the Porce IV and Espíritu Santo projects that has not yet been commissioned and assets of different substations that are temporarily out of service waiting to be used; for CENS, CHEC and ESSA assets associated with networks, lines and cables and plants, pipelines and tunnels. The carrying amount of these assets is as follows: for 2023 the cost amounts to $229,472 (2022: $130,932), the accumulated depreciation is $154,255 (2022: $59,998), the accumulated impairment is $41 (2022: $23) and the impairment depreciation is $22 (2022: $8).

The movement in cost, depreciation and impairment of property, plant and equipment is detailed below:

2023	Networks, lines and cables	Plants, ducts and tunnels	Construction in Progress [1]	Lands and buildings	Machinery and equipment	Communication and computer equipment	Furniture and fixtures and office equipment	Other Property, Plant and Equipment [2]	Total
Initial Balance	18,677,076	17,124,288	10,197,406	10,069,042	1,558,316	604,385	194,061	529,459	58,954,033
Additions [3]	72,089	90,130	5,035,127	29,366	133,735	44,093	3,976	115,608	5,524,124
Advances delivered (amortized) to third parties	(3,186)	-	83,038	-	-	369	-	750	80,971
Transfers (-/+)[4]	1,645,154	1,884,466	(4,150,211)	260,029	92,780	23,485	3,408	100,323	(140,566)
Provisions (-)	(90,587)	-	(4,025)	(3,173)	(34)	(339)	(47)	(5,321)	(103,526)
Withdrawals (-)	(89,768)	(45,001)	(6,895)	(2,374)	(36,193)	(35,432)	(1,912)	(4,260)	(221,835)
Foreign currency conversion effect	(1,298,824)	(430,683)	(185,177)	(127,908)	(186,472)	(48,283)	(11,079)	(24,106)	(2,312,532)
Other Changes	54,465	(57,635)	(18,457)	(2,201)	4,367	819	(33)	(7,866)	(26,541)
Final cost balance	**18,966,419**	**18,565,565**	**10,950,806**	**10,222,781**	**1,566,499**	**589,097**	**188,374**	**704,587**	**61,754,128**
Accumulated depreciation and impairment loss									
Accumulated depreciation and impairment loss	(6,956,340)	(5,166,607)	(2,181)	(1,133,535)	(812,609)	(385,432)	(112,629)	(203,083)	(14,772,416)
Period depreciation	(614,675)	(458,249)	-	(182,995)	(82,775)	(61,780)	(9,140)	(18,452)	(1,428,066)
Capitalized depreciation	-	-	-	(268)	(13)	(1)	-	-	(282)
Impairment for the period	(34,535)	(12,056)	(36,556)	(7,042)	(14,593)	(1,000)	(382)	(9,831)	(115,995)
Dispositions (-)	59,899	-	-	470	31	253	46	4,588	65,287
Withdrawals (-)	51,071	18,602	-	1,600	24,685	34,459	1,857	3,558	135,832
Transfers (-/+)	-	-	-	3	14	214	-	(232)	(1)
Foreign currency conversion effect	554,111	255,486	-	29,976	91,930	36,374	7,797	16,543	992,217
Other changes	6	2,127	-	(23,029)	(5,222)	224	(33)	(267)	(26,194)
Final Accumulated depreciation and impairment loss	**(6,940,463)**	**(5,360,697)**	**(38,737)**	**(1,314,820)**	**(798,552)**	**(376,689)**	**(112,484)**	**(207,176)**	**(15,149,618)**
Total balance, properties, plant, and equipment, net	**12,025,956**	**13,204,868**	**10,912,069**	**8,907,961**	**767,947**	**212,408**	**75,890**	**497,411**	**46,604,510**
Advances delivered to third parties									
Initial Balance	3,815	-	48,586	-	-	993	-	498	53,892
Movement (+)	-	-	(48,528)	-	-	-	-	-	(48,528)
Movement (-)	(3,186)	-	131,566	-	-	369	-	750	129,499
Difference in conversion adjustment change	(363)	-	(10,964)	-	-	(288)	-	-	(11,615)
Final Balance	**266**	**-**	**120,660**	**-**	**-**	**1,075**	**-**	**1,248**	**123,249**

- Amounts stated in millions of Colombian pesos -

2022	Networks, lines and cables	Plants, ducts and tunnels	Construction in Progress [1]	Lands and buildings	Machinery and equipment	Communication and computer equipment	Furniture and fixtures and office equipment	Other Property, Plant and Equipment (2)	Total
Initial Balance	16,200,672	13,962,107	13,122,500	6,324,920	1,260,280	511,360	162,892	477,957	52,022,688
Additions [3]	369,137	96,186	4,706,471	34,674	109,425	51,560	4,833	89,230	5,461,516
Advances delivered (amortized) to third parties	(3,723)	-	(462)	-	-	800	-	-	(3,385)
Transfers (-/+) [4]	1,213,455	2,738,171	(7,776,960)	3,642,857	101,852	26,621	10,582	(23,108)	(66,530)
Provisions (-)	(35,654)	(3,201)	(664)	(2,896)	(632)	(1,913)	(211)	(3,476)	(48,647)
Withdrawals (-)	(64,628)	(49,875)	(810)	(19,077)	(45,363)	(19,054)	(2,275)	(8,881)	(209,963)
Foreign currency conversion effect	992,616	356,899	145,466	105,034	150,868	36,293	8,902	19,105	1,815,183
Other Changes	5,201	24,001	1,865	(16,470)	(18,114)	(1,282)	9,338	(21,368)	(16,829)
Final cost balance	**18,677,076**	**17,124,288**	**10,197,406**	**10,069,042**	**1,558,316**	**604,385**	**194,061**	**529,459**	**58,954,033**
Accumulated depreciation and impairment loss									
Accumulated depreciation and impairment loss	(6,028,576)	(4,604,026)	(2,552)	(1,030,909)	(680,125)	(321,928)	(100,751)	(178,641)	(12,947,508)
Period depreciation	(551,618)	(351,673)	-	(86,116)	(76,587)	(56,574)	(8,278)	(16,486)	(1,147,332)
Impairment for the period - See note 8	(724)	(20,882)	-	(10,041)	(9,662)	(22)	(3)	(16)	(41,350)
Dispositions (-)	12,122	1,294	-	20	190	1,750	210	1,775	17,361
Withdrawals (-)	36,508	15,782	-	18,687	29,206	18,504	2,080	4,445	125,212
Transfers (-/+)	-	(371)	371	(30)	-	195	-	30	195
Foreign currency conversion effect	(423,764)	(206,887)	-	(22,622)	(73,125)	(27,218)	(5,993)	(13,465)	(773,074)
Other changes	(288)	156	-	(2,524)	(2,506)	(139)	106	(725)	(5,920)
Final Accumulated depreciation and impairment loss	**(6,956,340)**	**(5,166,607)**	**(2,181)**	**(1,133,535)**	**(812,609)**	**(385,432)**	**(112,629)**	**(203,083)**	**(14,772,416)**
Total balance, properties, plant, and equipment, net	**11,720,736**	**11,957,681**	**10,195,225**	**8,935,507**	**745,707**	**218,953**	**81,432**	**326,376**	**44,181,617**
Advances delivered to third parties									
Initial Balance	7,282	-	49,048	-	-	-	-	498	56,828
Movement (+)	-	-	(38,910)	-	-	-	-	-	(38,910)
Movement (-)	(3,723)	-	38,448	-	-	800	-	-	35,525
Difference in conversion adjustment change	256	-	-	-	-	193	-	-	449
Final Balance	**3,815**	**-**	**48,586**	**-**	**-**	**993**	**-**	**498**	**53,892**

- Amounts stated in millions of Colombian pesos -

[1]It includes capitalization of borrowing costs of $247,965 (2022: $404,627), the weighted average rate used to determine the amount of borrowing costs was 9.85 % in pesos (2022: 10.73 %) in pesos and the rate in dollars 4.51 %, (2022: 4.50 %). Additionally, it includes right-of-use assets associated with ongoing construction amounting to $2,611 (2022: $4,095).

The main projects under construction are as follows:

Project	2023	2022
Future Ituango Hydroelectric plant[1.1]	6,751,530	6,853,978
Other EPM projects	1,242,196	1,109,790
Power Distribution Lines - CARMAR	574,684	132,037
Construction, expansion, remodeling and maintenance of substations, networks, lines and cables for DECA and subsidiaries	502,722	709,168
TEPUY Photovoltaic Solar Park - EPM	262,450	33,939
Replacement of Poles and Trafos - EPM	164,157	120,119
Expansion and Reinforcement of Conduction Oriental Machado - EPM	151,981	96,797
Expansion of STN, STR, networks, lines and CENS loss control	143,184	103,461
Cadena de Occidente - EPM	139,664	132,868
Substations, Lines, Network Growth, Loss Reduction and ENSA Technology Replacement	136,237	164,515
Adaptation of Drinking Water Plant - EPM	131,050	88,867
Replacement and Expansion of Substations, Networks, Lines and ESSA Loss Control	126,992	151,489
CHEC Substations, Networks, Lines & Loss Control	114,662	75,636
Other Group Subsidiary Projects	107,602	14,329
Caldas la Estrella Interconnection - EPM	99,602	36,677
Distribution networks, quality compensation FISDL-SIGET and others Delsur	57,995	69,037
Yulimar Manantiales Circuit Expansion - EPM	55,733	31,493
Construction of water treatment plants and WWTPs, Aqueduct and sewerage networks Regional Waters	43,077	35,817
EMVARIAS Projects - Vaso Altair (phase 3), leachate treatment plant and others	38,901	31,507
Expansion and replacement of EDEQ substations, networks, lines and cables	20,641	13,796
Replenishment & Expansion SDL - EPM	16,779	20,323
Connection to Uraba New Hill Secluded Substation	15,530	67,733
Ayurá Plant Modernization - EPM	11,268	42,928
Envigado Sector Capiro Expansion - EPM	3,432	58,925
Total	**10,912,069**	**10,195,229**

-Amounts stated in millions of Colombian pesos -

In January 2023, the contractor Schrader Camargo continued with the civil works necessary for the entry into operation of units 3 and 4, advanced with the following activities: The construction of the lower elbow of pipeline No.4 was completed, the concrete of the straight section of pipeline No.3 was completed, and unit 3 was delivered to the contractor GE. The assembly of the elevator in the north services building was 88 % complete

In February 2023, the pouring of slab 217.45 of unit No. 4 was carried out, the concrete of the straight section of pipeline No.3 was completed, the civil works of unit 4 were handed over to the contractor GE to continue the equipment assembly works, the assembly of the elevator in the north services building was completed, in the turbine of the U3 ¬ progress was made with the assembly of the upper deck, the cylindrical valve and its servo motors and in the U4 turbine, positioning of the hydraulic unit level 211.90 was carried out, as well as the descent to level 199 of the 4 segments of the lower deck.

[1.1] As of December 31, 2023, the construction of the Ituango Hydroelectric Power Plant was 92.56 % complete (2022: 90.35 %), the physical progress presented as of the date of the period on which the separate financial statements are reported corresponds to the January 2023 version of the schedule, which includes the effects that the Project has suffered due to the health emergency caused by COVID-19, In addition, to the extent that inspections are carried out on the missing and post-contingency work fronts, the requirements for additional work are defined to guarantee the stability of the Project, a situation that forced us to reconfigure longer deadlines and include additional work activities within the schedule.

In March 2023, the connecting gantry of the bar gallery 3 with powerhouse was delivered to the contractor GE, the assembly of ferrule 24 in the lower conduction of unit 4 began, in unit 4, concrete pouring was carried out at the bases of the equipment and stator No.1, 2, 7 and 8, work was resumed to remove material from the Cauca River in the area of discharges 3 and 4, the area of ferrule 24 was freed to give continuity to the civil works, the concrete of embedding ferrules 1 to 4 of the upper pipeline No.3 was completed, in the lower branch 4 concrete pouring of layer 1 for the definitive plug for subsequent assembly of armor of the lower driving elbow, in unit 3 verticality control and leveling of the turbine shaft was carried out, in unit 4 the upper cover with the cylindrical valve was assembled.

In April 2023, the assembly of the armor in pipeline No.3 was completed, positioning of the support cone and operations ring in the shaft of unit 3 was carried out, the concrete pouring in the plug of the upper elbow 3 was completed, assembly of the armor in shaft 3 (lower elbow, vertical shaft, upper elbow) was completed, The rotor unit 3 was ready to descend into the generator enclosure, the machining of the upper deck of unit 4 and the pouring of concrete for embedding ferrule 24 of unit 4 was completed, bathymetry was carried out against discharges 1 and 2, preparations for the heating of the rotor of unit 4 were advanced, Compressed air cleaning was carried out on the stator of unit 4 and electrical tests were carried out on the transformers of bank No.7 and No.8.

In May 2023, in the turbine dismantling covers units 3 and 4, the installation and presentation of turbine dismantling covers in the opening area was carried out, in U3 and Y4, self-compacting concrete of 35 Mpa was poured into the EL.217, 45 slab. In the covers of the U4 generator, the installation of mesh and concrete pouring was carried out for 8 modules of the generator covers, EL.217, 45. In pipeline 4, the shielding of the lower elbow and the straight section was completed, as well as the embedded concrete, in bar galleries 3, 35 Mpa self-leveling concrete was poured for restitution of supports, for anchoring insulated phase bar ducts. In unit 3, the installation of the distributor servo motor on the north side, in Rotor-Stator U3, in addition to the lowering of the rotor to unit 3, as well as the positioning of the upper bracket and the anchor pins and bolts, in addition, the installation of the upper cover of the unit, mechanical rotation of the assembly (RUN OUT) was carried out for linear verification and concentricity to the rotor assembly, U4 shaft and impeller and turbine shaft and impeller assembly.

In June 2023, the cutting of slabs 424.5 and 435 in gate shaft 3 was completed, for the entry of demolition teams concrete plug, the cutting of slabs 424.5 and 435 in gate shaft 4 was completed, for the entry of demolition teams concrete plug, the concrete pouring of the plug in the upper elbow No.3 is completed, the arrival at the site of the mechanical bulkhead for the upper conduction No.3 is recorded, the assembly of the mechanical bulkhead for catchment 3 began, in unit 3, the definitive positioning of the external tank and thrust bearing was carried out, in addition to the pouring of tertiary concrete in corbels and thrust bearing, in unit 3, was completed, The leveling and alignment of servo motors of the distributor was completed, on the north and south side, insulation resistance tests and electrical tests were carried out on the rotor of unit 4, descent of the rotor assembly of unit 4 from the assembly room to the generator enclosure (definitive site).

In July 2023, the mechanical bulkhead for catchment 3 was assembled, the immersion of the mechanical bulkhead of catchment 3 was carried out, its leveling and final alignment was completed and the fixing of the ring platens began, the arrival at work of the mechanical bulkhead for upper conduction No.4 was recorded, the assembly of the mechanical bulkhead for catchment 4 began, completed the lowering and coupling of the generator rotor of Unit 4, completed the hot-tapping drilling in the upper conduction 3, completed the run-out of the generation unit 4, completed the assembly of the generator and the assembly of the turbine of unit 3.

In August 2023, in unit 3, the activities corresponding to the assembly stage (100 %) were completed, which includes: embedded equipment, turbine, generator, electrical systems and instrumentation, mechanical systems and insulated phase pipes and ducts, in unit 4, the assembly of the embedded equipment was completed, the remaining parts are 96.4 % complete (turbine, generator, electrical and mechanical systems), the isolated phase ducts an advance of 95.2 %, the assembly of the shielding and concretes in conduits 3 and 4 (lower elbow, vertical shaft and upper elbow) was completed, the pouring of the definitive concrete plugs located in upper bends 3 and 4 was completed, the "hot tapping" perforations for the demolition of the temporary concrete plugs of upper conduits 3 and 4 were completed, The construction of the system for the management of infiltration water was completed, in addition, the entry and installation of equipment for the demolition of the temporary plug in pipes 3 was carried out, the fixing in the rock of the bulkheads of catchments 3 and 4 was carried out, by means of the fixed stops with the installed bolts.

In September, units 3 and 4 completed the activities corresponding to the assembly stage that includes: embedded equipment, turbine, generator, electrical systems and instrumentation, mechanical systems and insulated phase pipes and ducts, in units 3 and 4 the dry tests were completed, in upper pipes 3 and 4 the installation of the mechanical bulkheads as well as the injection of grouting was completed, In addition, underwater activities were freed to proceed with the depressurization in the upper conduits 3 and 4, the depressurization process was carried out in the upper conduit 3, the demolition of the temporary concrete plug in the upper conduit 4 was completed, the demolition of the temporary concrete plug began, presenting an advance of 71 % (231 m^3), in the upper pipeline 3, the concrete repairs were completed, the removal of industrial networks is in process, the contracting process for "Slope stabilization works of km 0+900 left bank substitute road of the Ituango Hydroelectric Project" was awarded to the firm Estyma Estudios y Manejo S.A, the contracting process for civil works for the plugging of the right diversion tunnel and closure of the diversion of the Ituango Hydroelectric Project" to the firm Schrader Camargo S.A.S.

In October, the civil works inside the upper conduits 3 and 4 were completed, with which the removal of the mechanical bulkheads began, the demolition of the temporary concrete plugs in conduits 3 and 4 was completed, then the filling of upper conduits 3 and 4 began, Water tests were carried out in generation units 3 and 4, successfully completing the synchronization of both units. After performing the sequence tests in automatic start and load rejection, 1200 MW were generated with the 4 synchronized units. Unit 3 began commercial operation on October 28, 2023, at 0:00 a.m. and Unit 4 began commercial operation on October 31, 2023 at 6:00 p.m. Subsequently, they were registered in the National Interconnected System, for which the operator XM Compañía de Expertos en Mercados S.A. E.S.P. approved their commissioning since they complied with the regulatory requirements of the country. In addition, on October 23, 2023, the contract for the plugging of the right diversion tunnel – TDD with the firm Schrader Camargo S.A.S. began.

For the construction of the final civil works for the entry into operation of units 5 to 8, EPM accepted the offer of the CYS Consortium (made up of: Yellow River Co., Ltd. Sucursal Colombia, and Schrader Camargo S.A.S.) on October 11, 2023, whose final value was $1,075,895.

In November, the contractor Schrader Camargo S.A. carried out the provisional installations of equipment and supplies for the execution of works in the Capitanes sector associated with the contract for the plugging of the right diversion tunnel – TDD, the launch of spheres in pre-plug 2 was restarted and the pumping tests of plastic filter material for the definitive plugging of the TDD were completed. The contract for the stabilization of the slope at km 0 + 900 on the dam-Ituango substitute road was initiated with the firm Estyma Estudios y Manejos S.A., carrying out the mobilization and installation of the contractor and progress was made in the assembly of the cooling system of generating units 5 to 8.

In December, the civil works activities for the assembly of units 3 and 4 were completed, therefore, the contract with the firm Schrader Camargo S.A.S. was terminated, subsequently on December 20, 2023, the order was given to start the CYS Consortium for the construction of the final civil works for the entry into operation of units 5 to 8. Currently, activities are being carried out to mobilize equipment and adapt facilities, in the contract for the plugging of the right diversion tunnel – TDD continued with the mobilization of equipment, adaptations of facilities in the Capitanes square and concrete plant. In pre-plug 2, the filling of the annular space in the micropiles began, in micropile N°50 water tests were carried out and the assembly of the platform of the primary pumping system continued. In addition, a topographic survey of the state of the infiltration channel on the left bank of the TDI was carried out. In the stabilization of the slope at km 0 + 900, a substitute road on the left bank of the Ituango project, the contractor's mobilization, adaptation, cleaning, loading and removal of material in the drainage gallery and zones A and D of the slope continued.

Due to the entry into operation of units 3 and 4 of the Ituango Power Plant, the accounting transfer of the assets that entered into operation was carried out for a value of $1,597,981.

---

[2]*Includes equipment and vehicles of the vehicle fleet, medical and scientific equipment, property, plant and equipment in assembly, property, plant and equipment in transit and replacement assets, transportation, traction and lifting equipment, dining equipment, kitchen, pantry and hospitality.*

[3]*Includes purchases, capitalizable disbursements that meet the recognition criteria, assets received from third parties, and costs for dismantling and removal of items of property, plant, and equipment. At the end of December 2023 and December 2022, no government grants were received.*

[4]*Corresponds to the transfers to operation, the most representative being the Ituango project for a value of $1,597,981. It also includes transfers of projects from national energy subsidiaries, the most representative being those of ESSA, CENS and Caribe Mar.*

Property, plant and equipment additions of $5,524,123 (2022: $5,437,587), plus the movement of advances of $80,971 (2022: -$3,385), less borrowing costs of $247,965 (2022: $404,627), minus the movement of environmental provisions and dismantling of $234,553 (2022: $104,758), and other items of $-282 (2022: $3,389) are taken as effective items.

The assets subject to operating leases are the following: networks, lines and cables, the electrical infrastructure for the installation of networks by telecommunications operators, specifically poles. Plants, ducts and tunnels Ecopetrol's connection contract to the STN (Magdalena Medio Substation) with a net book value of $49,682 (2022: $71,400).

At the end of the period, an impairment test was carried out on assets linked to CGUs that in turn have intangibles with an indefinite useful life, resulting in impairment of some components, which implied their recognition in the financial statements.

See note 8

As of December 31, 2023, there are restrictions on the realization of the properties, plant and equipment associated with the parent company's vehicle fleet due to pending lifting due to theft and $1 (2022: $2) have been affected as a guarantee for the fulfillment of obligations.

The Group's most significant commitments for the acquisition of property, plant and equipment as of the cut-off date amount to $4,090,472 (2022: 3,229,904).

The following is the historical cost of fully depreciated property, plant and equipment still in operation as of December 31, 2023 and 2022:

Group	2023	2022
Communication and computer equipment	69,434	86,530
Plants, ducts and tunnels	43,151	26,907
Other properties, plant and equipment	22,842	21,228
Machinery and equipment	16,971	20,270
Networks, lines and cables	5,913	10,684
Buildings	4,535	5,052
Total	**162,846**	**170,671**

- Amounts stated in millions of Colombian pesos -

Note 6.

Investment property

The fair value of the investment properties is based on an appraisal made by appraisers who have recognized professional capacity and recent experience on the category of the real estate investments object of the appraisal; this value has been determined by appraisers of the Real Estate Assets Negotiation and Administration Unit of EPM; this activity is performed at least once a year. For the determination of the fair value of investment properties, the comparative or market method is used, which consists of deducting the price by comparison of transactions, supply and demand and appraisals of similar or comparable properties, after adjustments for time, conformation and location; the residual method, which is applied only to buildings and is based on the determination of the restated construction cost less depreciation due to age and state of conservation; and the rental method, which is used to determine the possible value of an asset according to its capacity to generate income, taking into account the probable value of the monthly rent that lessees would be willing to pay in the leasing market. See note 44 Fair value measurement on a recurring and non-recurring basis:

Investment properties	2023	2022
Initial balance	190,574	167,329
Purchase	695	-
Net gain or loss from fair value adjustments [1]	9,100	20,383
Disposals (-)	-	(802)
Effect of foreign currency translation	(4,152)	3,310
Transfers (-/+)	(1,607)	354
Final balance	**194,610**	**190,574**

- Amounts stated in millions of Colombian pesos -

As of December 31, 2023, investment property lease income for the period was $607 (2022: $510) and direct expenses for the period related to investment properties were $319 (2022: $266).

[1] *See details in note 32. Other income and note 36. Other expenses.*

As of December 31, 2023, there are restrictions on the property located in the Mamatoco sector of the municipality of Santa Marta, a direct reparation process is currently being carried out against said municipality, due to the fact that by omission of the municipal administration a process of massive invasion of the property was generated, which makes it difficult to recover it through police protection processes; Fair value is $1,392 (2022: $1,392).

Note 7.

Goodwill and other intangible assets

The following is a detail of the carrying amount of intangible assets:

Intangible assets	2023	2022
Cost		
Goodwill	3,250,166	3,955,113
Concessions and franchises	3,371,169	3,865,191
Rights	114,240	28,606
Licenses	238,504	237,728
Software	773,067	788,663
Easements	286,072	269,998
Costs Development Phases	101,835	64,137
Client-related intangibles	427,099	558,115
Other intangibles	19,696	24,254
Impairment amount		
Goodwill	(273,101)	(261,847)
Accumulated depreciation and impairment amount		
Concessions and franchises	(1,415,619)	(1,552,663)
Rights	(5,814)	(5,079)
Licenses	(145,148)	(135,652)
Software	(502,431)	(431,346)
Easements	(9,761)	(10,673)
Client-related intangibles	(218,772)	(253,081)
Other intangibles	(39,930)	(42,551)
Total	5,971,272	7,098,913

- Amounts stated in millions of Colombian pesos -

The movement in the cost, amortization and impairment of intangible assets is detailed below:

2023	Goodwill	Similar concessions and rights	Capitalized development costs	Software and computer applications	Licenses	Rights	Other intangible assets [1]	Total
Initial balance, cost	3,955,113	3,865,391	64,137	788,663	237,728	28,607	852,165	9,791,804
Additions [2]	-	296,706	44,543	31,117	11,159	-	8,048	391,573
Transferences (-/+)	-	(4,164)	(6,845)	35,932	11,902	90,187	15,151	142,163
Disposals (-)	-	-	-	-	-	(129)	-	(129)
Derecognition (-)	-	(9)	-	(1,368)	(3,201)	-	-	(4,578)
Effect of foreign currency translation	(704,947)	(786,348)	-	(81,277)	(18,097)	(4,425)	(141,927)	(1,737,021)
Other changes	-	(207)	-	-	(987)	-	(770)	(1,964)
Final balance, cost	**3,250,166**	**3,371,369**	**101,835**	**773,067**	**238,504**	**114,240**	**732,667**	**8,581,848**
Initial balance, accumulated amortization and impairment	(261,847)	(1,552,662)	-	(431,346)	(135,653)	(5,079)	(306,304)	(2,692,891)
Charge of amortization for the period [3]	-	(153,498)	-	(120,667)	(24,596)	(1,806)	(32,987)	(333,554)
Impairment of the period (Note 8)	(25,325)	-	-	(1,739)	(1,160)	(270)	-	(28,494)
Disposals (-)	-	-	-	-	-	129	16	145
Derecognition (-)	-	7	-	1,367	3,216	-	-	4,590
Effect of foreign currency translation	14,071	290,449	-	49,957	12,504	458	71,397	438,836
Other changes	-	86	-	(4)	539	755	(584)	792
Final balance accumulated amortization and impairment	**(273,101)**	**(1,415,618)**	-	**(502,432)**	**(145,150)**	**(5,813)**	**(268,462)**	**(2,610,576)**
Ending balance intangible assets, net	**2,977,065**	**1,955,751**	**101,835**	**270,635**	**93,354**	**108,427**	**464,205**	**5,971,272**
Advances to third parties	-	-	-	-	-	-	-	-
Initial balance	-	200	-	-	-	-	-	200
Final balance	**-**	**200**	**-**	**-**	**-**	**-**	**-**	**200**

- *Amounts stated in millions of Colombian pesos -*

2022	Goodwill	Similar concessions and rights	Capitalized development costs	Software and computer applications	Licenses	Rights	Other intangible assets [1]	Total
Initial balance, cost	3,425,374	3,070,766	35,016	635,659	209,691	25,196	718,779	8,120,481
Additions [2]	-	244,281	31,383	58,361	8,607	-	7,058	349,690
Transferences (-/+)	-	11,554	(1,972)	31,518	7,748	-	17,533	66,381
Disposals (-)	-	-	-	-	-	(112)	-	(112)
Derecognition (-)	-	(837)	-	(47)	(692)	-	-	(1,576)
Effect of foreign currency translation	529,739	550,236	-	61,252	14,313	3,523	104,722	1,263,785
Other changes	-	(10,609)	(290)	1,920	(1,939)	-	4,073	(6,845)
Final balance, cost	**3,955,113**	**3,865,391**	**64,137**	**788,663**	**237,728**	**28,607**	**852,165**	**9,791,804**
Initial balance, accumulated amortization and impairment	(206,572)	(1,190,144)	-	(322,880)	(107,153)	(3,999)	(224,562)	(2,055,310)
Charge of amortization for the period [3]	-	(155,092)	-	(74,051)	(19,708)	(490)	(35,583)	(284,924)
Capitalized amortization	-	-	-	(263)	-	-	-	(263)
Impairment of the period (Note 8)	(47,085)	-	-	-	(1)	(212)	-	(47,298)
Disposals (-)	-	-	-	-	(20)	112	-	92
Derecognition (-)	-	224	-	47	479	-	-	750
Transferences (-/+)	-	-	-	(195)	-	-	-	(195)
Effect of foreign currency translation	(8,189)	(202,328)	-	(33,967)	(9,234)	(340)	(51,464)	(305,522)
Other changes	-	(5,322)	-	(37)	(16)	(150)	5,305	(220)
Final balance accumulated amortization and impairment	**(261,847)**	**(1,552,662)**	**-**	**(431,346)**	**(135,653)**	**(5,079)**	**(306,304)**	**(2,692,891)**
Ending balance intangible assets, net	**3,693,266**	**2,312,729**	**64,137**	**357,317**	**102,075**	**23,528**	**545,861**	**7,098,913**
Advances to third parties	-	-	-	-	-	-	-	-
Initial balance	-	200	-	-	-	-	-	200
Final balance	-	200	-	-	-	-	-	200

- Amounts stated in millions of Colombian pesos -

[1] *It includes easements, customer-related intangibles and other intangibles corresponding to premiums at Gas Service Stations.*

[2] *It includes purchases, capitalizable disbursements that meet the recognition criterion, and concessions. The additions in development disbursements are mainly represented in the SAPHIRO project for the implementation of the new ERP.*

[3] See note 34 | Cots for the provision of services *and* See note 35 | Administrative costs

At the end of the periods, an impairment test was carried out on the assets for those intangibles with an indefinite useful life. The breakdown of the impairment recognized in the statement of comprehensive income can be found in Note 8. Impairment of assets.

The amortization of intangibles is recognized as costs and expenses in the statement of comprehensive income, profit or loss section for the period, under the lines costs for the provision of services and administrative expenses.

Disbursements of research and development projects recognized as expenses in the result of the period during the period amounted to $7,724 (2022: $13,338).

The carrying amount at the cut-off date and the remaining amortization period for significant intangibles is:

Significant intangible assets	Useful life	Remaining amortization period	2023	2022
Goodwill	Indefinite	-	2,976,620	3,693,266
Chile Concession	Defined	12 years	2,639,750	1,868,478
Elektra Noreste S.A. - Commercial Management System and SAP ERP and Other Software	Defined	9 years	283,533	298,837
AGUAS REGIONALES S.A. E.S.P - Concessions and franchises	Defined	11 - 75 years	138,273	116,412
Ecosystem city of Lerdo S.A de C.V. de Mexico - Water treatment plant	Defined	35 years	86,001	86,791
Distribución Eléctrica Delsur - SAP Commercial Management System	Defined	2-5 years	73,953	79,208
Easements of corridor lines 53	Indefinite	-	63,040	63,040
Deca- Smart Metering System & Customer Service System	Defined	1-5 years	47,993	55,035
ELECTRIFICADORA DE SANTANDER S.A. E.S.P - Easements	Indefinite	-	41,875	33,846
Circuito Bello Distribution Network	Defined	39 years	37,923	38,671

- Amounts stated in millions of Colombian pesos -

The following intangible assets have an indefinite useful life: trade credits and easements, the latter of which are agreed in perpetuity. By definition, an easement is a perpetual or temporary right in rem over another person's property, by virtue of which it can be used, or certain rights of disposition can be exercised, or the owner may be prevented from exercising some of his property rights (Art. 2970 of the Civil Code). In EPM, easements are not treated individually, since they are constituted for public service projects, where the general interest prevails over the particular, considering that the objective is to improve the quality of life of the community; The aforementioned projects do not have a defined temporality, so they are constituted in perpetuity supported in their use. However, there are some easements with a defined useful life, because they are tied to the useful life of the main asset that the easement requires.

Intangible assets with an indefinite useful life	2023	2022
Goodwill		
Waters of Antofagasta	1,420,441	1,887,833
Empresa eléctrica de Guatemala S.A.	1,084,368	1,318,538
Ituango Generation Power Plant Project	177,667	177,667
Elektra Noreste S.A.	127,519	142,157
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
Surtigás Necoclí	303	303
Caldas Hydroelectric Power Plant S.A. E.S.P	10	10
Goodwill subtotal	**2,977,065**	**3,693,266**
Other intangible assets		
Easements	258,064	246,918
Subtotal Other Intangible Assets	**258,064**	**246,918**
Total intangible assets with indefinite useful life	**3,235,129**	**3,940,184**

- Amounts stated in millions of Colombian pesos -

The variation with respect to 2022 is mainly due to the decrease in exchange rates that generates a lower value of the goodwill of international subsidiaries.

Note 8.

Impairment of assets

8.1 Impairment of investments in associates and joint ventures

The following table presents the cumulative effect of impairment losses recognized::

Investment	Carrying amount		Loss (reversal) of impairment	
	2023	2022	2023	2022
Associate				
UNE EPM Telecomunicaciones S.A.	961,227	1,065,566	-	-
Inversiones Telco S.A.S.	76,266	73,611	-	-
Hidroeléctrica Ituango S.A. E.S.P.	18,631	17,281	-	6,420
Hidroeléctrica del Río Aures S.A. E.S.P.	-	2,564	-	
Total associates	**1,056,124**	**1,159,022**	**-**	**6,420**
Joint ventures				
Parques del Río S.A.S.	25	36	-	-
Centro de Servicios Compartidos S.A.S	17,714	17,130	-	-
Total joint ventures	**17,739**	**17,166**	**-**	**-**

- Amount stated in millions of Colombian pesos -

8.2 Impairment of Cash Generating Units

The carrying value of goodwill and intangible assets with indefinite useful lives associated with each CGU are detailed below:

Cash Generating Unit	Carrying amount		Loss (reversal) of impairment	
	2023	2022	2023	2022
Energy Generation Segment				
Goodwill	260,647	260,647	-	-
Easements	1,655	966	-	-
Rights	-	-	-	212
Licenses	-	-	-	1
Buildings	-	-	-	10,041
Plants, ducts and tunnels	-	-	-	20,882
Networks, lines and cables	-	-	-	724
Machinery and equipment	-	-	-	9,091
Furniture, fixtures and office equipment	-	-	-	2
Communication and computer equipment	-	-	-	4
Transport, traction and lifting equipment	-	-	-	16
Energy Generation	**262,302**	**261,613**	-	**40,973**
Energy Transmission Segment				
Easements	129,226	129,226	-	-
Energy Transmission	**129,226**	**129,226**	-	-
Energy Distribution Segment				
Goodwill	1,217,032	1,465,841	-	-
Easements	128,189	114,652	-	-
Software	-	-	1,739	-
Lands	-	-	715	-
Constructions in progress	-	-	36,556	-
Machinery, plant and equipment in assembly	-	-	887	-
Buildings	-	-	1,088	-
Plants, Pipelines & Tunnels	-	-	12,056	-
Networks, Lines & Cables	-	-	34,535	-
Machinery & Equipment	-	-	14,593	-
Office furniture, fixtures and equipment	-	-	174	-
Communication & Computer Equipment	-	-	237	-
Rights of use Buildings	-	-	523	117
Rights of Use Transport, Traction and Lifting Equipment	-	-	553	-
Power Distribution	**1,345,221**	**1,580,493**	**111,639**	**117**
Gas Segment				
Goodwill	303	303	-	-
Easements	3,698	3,693	-	-
Gas	**4,001**	**3,996**	-	-
Water Supply Segment				
Goodwill	1,292,490	1,717,820	20,911	43,206
Easements	10,398	7,728	-	-
Water Supply	**1,302,888**	**1,725,548**	**20,911**	**43,206**
Wastewater Management Segment				
Goodwill	127,951	170,013	4,414	3,879
Easements	1,825	1,745	-	-
Rights	-	-	270	-
Licenses	-	-	1,160	-
Land	-	-	5,240	-
Machinery, plant and equipment in assembly	-	-	79	-
Machinery & Equipment	-	-	-	571
Office furniture, fixtures and equipment	-	-	208	1
Communication & Computer Equipment	-	-	763	17
Transport, Traction and Lifting Equipment	-	-	883	-
Rights of use Buildings	-	-	1,542	-
Rights of use: Office furniture, fixtures and equipment	-	-	216	-
Rights of use Communication and computer equipment	-	-	889	-
Rights of Use Transport, Traction and Lifting Equipment	-	-	1,031	-
Wastewater Management	**129,776**	**171,758**	**16,695**	**4,468**
Solid Waste Management Segment				
Goodwill	78,642	78,642	-	-
Solid Waste Management	**78,642**	**78,642**	-	-
Total	**3,252,056**	**3,951,276**	**149,245**	**88,530**

- Amount stated in millions of Colombian pesos -

Goodwill is mainly allocated to the following segments or CGUs:

Cash Generating Unit	2,023	2,022	Generated as a result of
Water Supply Adasa	1,390,828	1,857,721	Business combination in the acquisition of Aguas de Antofagasta by Inversiones Hanover
Energy Distribution EEGSA	1,084,367	1,318,539	Business combination in the acquisition of Deca II Group by EPM
Energy 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.
Energy Distribution ENSA	127,519	142,157	Business combination in the Grupo PDG acquisition by EPM
Solid Waste Management Emvarias	78,642	78,642	Business Combination in EPM's Acquisition
Wastewater Management Adasa	29,613	30,112	Business combination in the acquisition of Aguas de Antofagasta by Inversiones Hanover
Energy Distribution EDEQ	5,135	5,135	Business combination in the acquisition made by EPM Inversiones
Gas EPM	303	303	Business combination with Surtidora de Gas del Caribe S.A. E.S.P. carried out by EPM.
Energy Distributiona CHEC	10	10	Business combination in the acquisition made by EPM Inversiones
Total	**2,977,064**	**3,693,266**	

- Amount stated in millions of Colombian pesos -

Easements intangible assets are mainly allocated to the following segments or CGUs:

Cash Generating Unit	2023	2022
EPM Energy Transmission	129,189	12,919
EPM Energy Distribution	46,897	38,611
ESSA Energy Distribution	38,221	37,141
ENSA Energy Distribution	22,791	20,739
EPM Water Supply	9,834	7,412
CHEC Energy Distribution	8,821	7,544
EPM Gas	3,698	3,693
EPM Energy Generation	1,206	444
EPM Wastewater Management	1,097	1,018
CENS Energy Distribution	1,033	9,266
EEGSA Energy Distribution	874	1,096
Wastewater Management National Waters	597	597
Adasa Water Supply	564	315
Teribe Hydroecological Energy Generation	281	353
EDEQ Energy Distribution	256	256
CHEC Energy Generation	169	169
Malambo Water Wastewater Management	130	130
ESSA Energy Transmission	36	36
Total	**274,991**	**258,010**

- Amount stated in millions of Colombian pesos -

For the calculation of the recoverable amount of assets, the value in use is the criterion used by the Group.

To estimate the value in use of cash-generating units that have been assigned goodwill and intangible assets with an indefinite useful life, the Group is based on future cash flow projections considering expectations regarding the market, legal, economic, and technological environment. The last financial projection approved by the Board of Directors of the subsidiary with a 20-year projection is used and the discount rate used corresponds to the cost of capital of the business.

Impairment of assets and intangible assets - Provision Agua de Antofagasta CGU

Aguas de Antofagasta calculated the impairment of its assets based on IAS 36, seeking to ensure that the value of the assets recorded on December 30, 2023 reflects their recoverable value through their use or sale.

Value-in-use: For this purpose, an estimate was made of the future cash flows that the company expects to obtain on the assets, considering

the expectations of possible variations in the value, based on the most recent financial projections, the cash flow was calculated until 2033, the year in which the operating contract ends. The discount rate used for the valuation considers the return that the owner would require for this type of investment.

Based on the above, and on the analysis of the fixed assets subject to impairment allocation, the value of the impairment on the assets as of December 31 amounts to CLP 4,630,387,297 and results from:

- Value-in-use: 778,445,081,537 Chilean pesos
- ying amount of the CGU: 783,075,468,835 Chilean pesos
- Comparison amount: 4,630,387,297 Chilean pesos
- Impairment amount: 4,630,387,297 Chilean pesos
- Conversion rate cost impairment 4.32 COP / CLP

The key assumptions used by the Group for both segments in determining value-in-use/fair value less costs to sell are as follows:

Concept	Key assumption
Revenue	They were projected considering the markets in which it participates, consumption and growth are estimated according to historical trends and urban real estate dynamics, in the long term the rates of the regulated market are maintained without modification, only adjusted for inflation. Revenues are estimated from the entry into operation of greater capacity and the renewal of current contracts, this information is included in the approved business plan and on which expenditures have been made and/or commitments have been acquired.
Costs and expenses	It behaves in line with the growth of demand in the regulated and non-regulated market, maintaining the company's current operating indicators.
Investment	Investments in the replacement and expansion of networks are estimated to maintain the provision of the service in the same conditions of quality and continuity, based on experience and knowledge of the infrastructure. It is considered to materialize expansions in the desalination capacity to meet the needs of the regulated market, the most important and material already has associated expenditures. In the long term, and whenever the capacity is filled by the vegetative growth of the population, new expansions are considered since they are commitments present in the concession contract. The recovery of the Non-Remunerated Income at the end of the concession is considered, as defined in the contract signed with ECONSSA.

Impairment of assets and intangibles - Gestión Aguas de Antofagasta Wastewater CGU

In Aguas de Antofagasta, the impairment of its assets was calculated based on IAS 36, seeking to ensure that the value of the assets that are accounted for as of December 31, 2023 reflects their recoverable value through their use or sale

Use value: For this purpose, the estimation of the future cash flows that the company expects to obtain on the assets was made; Considering the expectations about possible variations in value, in addition to being based on the most recent financial projections, the cash flow was calculated until 2033, the year in which the operating contract ends. The discount rate used for the valuation considers the return that the owner would demand from this type of investment.

Based on the above, and on the analysis of the fixed assets subject to impairment allocation, the value of the impairment of the assets as of December 31 amounts to CLP 977,419,871 and results from:

- Value-in-use: 74,410,422,314 Chilean pesos
- Carrying amount of the CGU: 75,387,842,185 Chilean pesos
- Comparison amount: 977,419,871 Chilean pesos
- Impairment amount: 977,419,871 Chilean pesos
- Conversion rate cost impairment 4.32 COP / CLP

The key assumptions used by the group in determining value-in-use/fair value less costs of sale are as follows:

Concept	Key assumption
Revenue	Considering the markets in which it participates, consumption and growth are estimated according to historical trends and urban real estate dynamics, in the long term the rates of the regulated market are maintained without modification, only adjusted for inflation. Revenues are estimated from the entry into operation of greater capacity and the renewal of current contracts, this information is included in the approved business plan and on which expenditures have been made and/or commitments have been acquired.
Costs and expenses	They behave in line with the growth of demand in the regulated and non-regulated market, maintaining the company's current operating indicators.

Investment	Investments in the replacement and expansion of networks are estimated to maintain the provision of the service in the same conditions of quality and continuity, based on experience and knowledge of the infrastructure. It is considered to materialize expansions in the desalination capacity to meet the needs of the regulated market, the most important and material already has associated expenditures. In the long term, and whenever the capacity is filled by the vegetative growth of the population, new expansions are considered since they are commitments present in the concession contract. The recovery of the Non-Remunerated Income at the end of the concession is considered, as defined in the contract signed with ECONSSA.

Impairment of assets and intangibles – Afinia UGE

At Afinia, the impairment of its assets was calculated based on IAS 36, ensuring that the value of the assets that are accounted for as of December 31, 2023 reflects their recoverable value through their use or sale.

Use value: For this purpose, the estimation of the future cash flows that the company expects to obtain on the assets was made; Considering expectations about possible changes in value, and 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 company's capital structure, which considers the return that the owner would demand from this type of investment.

Based on the above, and on the analysis of fixed assets subject to impairment allocation, the value of the impairment of the assets as of December 31 amounts to $111,638,349,223 and results from:

- Value-in-use: $3,883,843,993,427 Pesos
- Carrying amount of the CGU: $3,995,482,342,650 Pesos
- Comparison amount: $111,638,349,223 Pesos
- Impairment amount: $111,638,349,223 Pesos

The key assumptions used by the group in determining value-in-use/fair value less costs to sell are as follows:

Concept	Key assumption
Income	Rate projections were made based on the current regulatory framework applicable to Afinia's market. Compared to customers with historical series, a trend growth applicable to the area was estimated. In terms of demand, the growth of the main variables took into account the application of the loss plan, the customer normalization campaigns and the collection evolution plan.
Costs and expenses	The cost and expense projection considered the current conditions of the Afinia market, and the efforts needed to develop the different commercial and operational strategies approved by the management, the evolution of the investment and the growth of the population. These costs evolve in real terms, as indicated above and in nominal terms due to inflation or by the respective indexer.
Investment	The CAPEX projection considered the current market conditions of Afinia and its infrastructure, as well as what it needs to execute to meet regulatory obligations, signed management obligations, strategies defined by the administration and population growth. These investments grow in real terms, as indicated above and in nominal terms due to inflation or the respective indexer.

Impairment of assets and intangibles - TICSA UGE

TICSA Constructora calculated the impairment of its assets based on IAS 36, seeking to ensure that the value of the assets that are accounted for as of December 31, 2023 reflects their recoverable value through their use or sale.

Use value: For this purpose, the estimation of the future cash flows that the company expects to obtain on the assets was made; Considering expectations about possible changes in value, and based on the most recent financial projections, cash flow was calculated at 20 years with continuity value. The discount rate used for the valuation reflects the company's capital structure, which considers the return that the owner would demand from this type of investment.

Based on the above, and in the analysis of the fixed assets susceptible to impairment assignment, the value of the impairment of the assets as of December 31 amounts to MXP 52,418,882 and results from:

- Value-in-use: 586,217,225 Pesos mexicanos
- Carrying amount of the CGU: 638,636,107 Pesos mexicanos
- Comparison amount: 52,418,882 Pesos mexicanos
- Impairment amount[1]: 52,418,882 Pesos mexicanos
- Conversion rate cost impairment 225.90 COP / MXP

[1] *Corresponds to the maximum impairment that could be assigned to the assets of the CGU in accordance with IAS 36.*

The key assumptions used by the group in determining value-in-use/fair value less costs of sale are as follows:

Concept	Key assumption
Income	Revenue comes primarily from two lines of business, EPC construction line and BOT businesses. In the short term, they are estimated according to the projects awarded and in the medium and long term according to the expectations of new businesses.
Costs and expenses	Costs and expenses are projected considering inflation and the level of historical profitability margins.
Investment	Investments are considered for BOMT type businesses in which long-term operation, maintenance and return on investment are proposed.

Impairment of assets and intangibles - UGE Gestión Aguas de Morelia Wastewater

In Aguas de Morelia, the impairment of its assets was calculated based on IAS 36, ensuring that the value of the assets that are accounted for as of December 31, 2023 reflects their recoverable value through their use or sale.

Use value: For this purpose, the estimation of the future cash flows that the company expects to obtain on the assets was made; considering the expectations about possible variations in value, in addition to the most recent financial projections, the operating contract ends in November 2024 and cash flows are estimated until 2026 for the recovery of working capital and the settlement of the SPV and taxes. The discount rate used for the valuation considers the return that the owner would demand from this type of investment.

Based on the above, and on the analysis of the fixed assets subject to impairment allocation, the value of the impairment of the assets as of September 30, 2023 amounts to MXP 945,342 and results from:

- Value-in-use: 64,180,156 Mexican pesos
- Carrying amount of the CGU: 91,626,084 Mexican pesos
- Comparison amount: 27,445,928 Mexican pesos
- Impairment amount[1]: 983,916 Mexican pesos
- Conversion rate cost impairment 241.49 COP / MXP

[1] *It corresponds to the maximum impairment that could be assigned to the assets of the CGU in accordance with IAS 36.*

The key assumptions used by the group in determining value-in-use/fair value less costs to sell are as follows:

Concept	Key assumption
Income	The revenues come from the operation of the Atapaneo and Itzicuaros Wastewater Treatment Plant, projected until the expiration of the contract and based on historical consumption.
Costs and expenses	Costs and expenses were estimated in compliance with the maintenance of the plant, main inputs such as electricity, chemicals and personnel, assuming in this last point, an increase at the end of the projection since the closure of the company is assumed.
Investment	No additional investments are estimated in addition to those to sustain the infrastructure.

Note 9.

Investments in subsidiaries

The detail of the Group's subsidiaries as of the date of the reporting period is as follows:

Name of the subsidiary	Ref.	Location (Country)	Main Activity	*Percentage of ownership and voting rights*		*Non-controlling party share percentage*		Date of establishment
				2023	2022	2023	2022	
Empresa de Energía del Quindío S.A. E.S.P. (EDEQ)		Colombia	It provides electric power utilities for the purchase of electric power and sale and distribution.	92.85%	92.85%	7.15%	7.15%	22/12/1988
Caldas Hydroelectric Power Plant S.A. E.S.P. (CHEC)		Colombia	It provides public energy services, operating electric power generation plants, transmission and subtransmission lines and distribution networks, as well as the marketing, importing, distribution and sale of electricity.	80.10%	80.10%	19.90%	19.90%	9/09/1950
Electrificadora de Santander S.A. E.S.P. (ESSA)		Colombia	It provides public services of electric energy, purchase, sale, commercialization and distribution of electric energy.	74.05%	74.05%	25.95%	25.95%	16/09/1950
Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS)		Colombia	It provides public electric power services, purchases, exports, imports, distributions and sales of electric power, construction and operation of generating plants, substations, transmission lines and distribution networks.	91.52%	91.52%	8.48%	8.48%	16/10/1952
Caribemar de la Costa S.A.S. E.S.P. (AFINIA)	(1)	Colombia	It provides public services for the distribution and commercialization of electricity, as well as the performance of all related activities, works, services and products.	100%	100%	-	-	1/10/2020

Name of the subsidiary	Ref.	Location (Country)	Main Activity	*Percentage of ownership and voting rights*		*Non-controlling party share percentage*		Date of establishment
				2023	2022	2023	2022	
Elektra Noreste S.A. (ENSA)		Panama	It acquires energy, transports, distributes to customers, transforms voltage, installs, operates and maintains public lighting, and is authorized to generate energy up to a limit of 15% of the maximum demand in the concession area.	51.17%	51.16%	48.84%	48.84%	19/01/1998
Hidroecológica del Teribe S.A. (HET)		Panama	It finances the construction of the Bonyic hydroelectric project required to meet the growth in energy demand of the Isthmus of Panama.	99.68%	99.68%	0.32%	0.32%	11/11/1994
Empresa Eléctrica de Guatemala S.A. (EEGSA)		Guatemala	It provides electric power distribution services	80.90%	80.90%	19.10%	19.10%	5/10/1939
Gestión de Empresas Eléctricas S.A. (GESA)		Guatemala	It provides advice and consulting to electricity distribution, generation and transportation companies.	100%	100%	-	-	17/12/2004
Almacenaje y Manejo de Materiales Eléctricos S.A. (AMESA)		Guatemala	It 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	It provides electricity marketing services.	80.52%	80.52%	19.48%	19.48%	5/11/1998
Transportista Eléctrica Centroamericana S.A. (TRELEC)		Guatemala	It provides electric power transmission services.	80.90%	80.90%	19.10%	19.10%	6/10/1999
Energetica S.A. (ENERGICA)		Guatemala	It provides construction and maintenance services for projects and assets in the electricity sector.	78.19%	78.19%	21.81%	21.81%	31/08/1999

Name of the subsidiary	Ref.	Location (Country)	Main Activity	*Percentage of ownership and voting rights*		*Non-controlling party share percentage*		Date of establishment
				2023	2022	2023	2022	
Crediegsa S.A. (CREDIEGSA)		Guatemala	Provides recruitment and other administrative services	80.90%	80.90%	19.10%	19.10%	1/12/1992
Distribuidora de Electricidad del Sur (DELSUR)		El Salvador	Transformation, distribution and commercialization of electricity that supplies energy to the south-central area 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 electricity users of the Delsur company.	86.41%	86.41%	13.59%	13.59%	19/10/2010
Aguas Nacionales EPM S.A. E.S.P.		Colombia	It provides domestic public services such as aqueduct, sewerage and sanitation, treatment and use of waste, complementary activities and engineering services typical of these public services.	99.99%	99.99%	0.01%	0.01%	29/11/2002
Aguas Regionales EPM S.A. E.S.P.		Colombia	Guarantee the provision of domestic public services such as aqueduct, sewerage and sanitation and compensate for the lag in the infrastructure of these services in the partner municipalities.	74.57%	74.57%	25.43%	25.43%	18/01/2006
Empresa de Aguas del Oriente Antioqueño S.A. E.S.P.		Colombia	It provides domestic public water and sewerage services, as well as other complementary activities specific to each of these public services.	56.02%	56.02%	43.98%	43.98%	22/11/1999
Aguas de Malambo S.A. E.S.P.	(2)	Colombia	Dedicated to guaranteeing the provision of domestic public services of aqueduct, sewerage and sanitation in the jurisdiction of the Municipality of Malambo, Department of Atlántico.	98.73%	98.52%	1.27%	1.48%	20/11/2010

Name of the subsidiary	Ref.	Location (Country)	Main Activity	*Percentage of ownership and voting rights*		*Non-controlling party share percentage*		Date of establishment
				2023	2022	2023	2022	
Ecosistemas de Colima S.A. de C.V.		Mexico	Dedicated to the development of an executive project for the wastewater treatment plant, its construction, equipment and commissioning, conservation and maintenance of sludge stabilization in municipalities of the State of Colima.	100%	100%	-	-	14/02/2006
Ecosistemas de Tuxtla S.A. de C.V.		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%	100%	-	-	17/11/2006
Ecosystem of Ciudad Lerdo S.A. de C.V.		Mexico	Subsidiary dedicated to the construction, equipment, commissioning, operation and maintenance for 20 years of a wastewater treatment system in the city of Lerdo Durango, with the modality of total recoverable private investment.	100%	100%	-	-	24/04/2007
Aquasol Morelia S.A. de C.V.		Mexico	Subsidiary dedicated to the construction of a wastewater treatment plant, as well as the equipment and commissioning of said plant located in the town of Atapaneo in the Municipality of Morelia, Michoacán.	100%	100%	-	-	13/11/2003
Ecosystems of Celaya S.A. de C.V.		Mexico	Dedicated to the development of the executive project for the wastewater treatment plant, as well as the treatment, transport and final disposal of solid waste and sludge in the plant in the city of Celaya, state of Guanajuato.	100%	100%	-	-	5/12/2008
Desarrollos Hidráulicas de Tampico S.A. de C.V.		Mexico	Dedicated to the construction, equipment, expansion, improvement, conservation, maintenance and operation of water supply systems and sewerage services, collection, drainage and wastewater treatment works.	100%	100%	-	-	25/08/1995

Name of the subsidiary	Ref.	Location (Country)	Main Activity	*Percentage of ownership and voting rights*		*Non-controlling party share percentage*		Date of establishment
				2023	2022	2023	2022	
Ecoagua de Torreón S.A. de C.V.		Mexico	Dedicated to providing wastewater treatment operation services from any source, whether municipal or domestic, as well as activity related to wastewater treatment.	100%	100%	-	-	25/10/1999
Proyectos de Ingeniería Corporativa S.A. de C.V.		Mexico	Provision of design, general engineering or construction services, professional and technical services aimed at operating, administering, directing and in general carrying out all the activities that are necessary for the development of activities of any commercial, industrial or service company, in its modality as a natural or legal person.	100%	100%	-	-	1/08/2008
Corporación de Personal Administrativo S.A. de C.V.		Mexico	Provision of professional services aimed at operating, administering, directing and in general carrying out all the activities that are necessary for the development of activities of any commercial, industrial or service company as a natural or legal person, as well as the administration, selection, hiring and exchange of personnel who perform functions within the facilities of the applicant companies.	100%	100%	-	-	1/08/2008

Name of the subsidiary	Ref.	Location (Country)	Main Activity	*Percentage of ownership and voting rights*		*Non-controlling party share percentage*		Date of establishment
				2023	2022	2023	2022	
Aguas de Antofagasta S.A.		Chile	Construction and operation of public services for the production and distribution of drinking water and for the collection and disposal of wastewater through the operation of the sanitary concessions of the Empresa de Servicios Sanitarios de Antofagasta S.A. (now Econssa Chile S.A.), and the performance of other services related to these activities, all this in the manner and under the conditions established in Decrees with Force of Law Nos. 382 and 70, both of 1998, of the Ministry of Public Works, and other pertinent regulations. To this end, on December 29, 2003, Aguas de Antofagasta S.A. signed with Empresa de Servicios Sanitarios de Antofagasta S.A. (now Empresa Concesionaria de Servicios Sanitarios S.A. - Econssa S.A.) the "Contract for the transfer of the right to exploit sanitary concessions", for a total term of 30 years from the date of its signing.	100%	100%	-	-	28/11/2003
Empresas Varias de Medellín S.A. E.S.P.		Colombia	Subsidiary dedicated to the provision of public sanitation services within the framework of comprehensive solid waste management.	99.93%	99.93%	0.07%	0.07%	11/01/1964
EPM Inversiones S.A.		Colombia	Dedicated to the investment of capital in domestic or foreign companies organized as public service companies.	100%	99.99%	0.01%	0.01%	25/08/2003
Maxseguros EPM Ltd.		Bermuda	Negotiation, contracting and management of reinsurance for the policies that cover the assets.	100%	100.00%	-	-	23/04/2008
Panama Distribution Group S.A. - PDG		Panama	Capital investment in companies.	100%	100.00%	-	-	30/10/1998
Distribución Eléctrica Centroamericana DOS S.A. - DECA II		Guatemala	It makes capital investments in companies that are engaged in the distribution and commercialization of electric power and the provision of telecommunications services.	100%	100.00%	-	-	12/03/1999

Name of the subsidiary	Ref.	Location (Country)	Main Activity	*Percentage of ownership and voting rights*		*Non-controlling party share percentage*		Date of establishment
				2023	2022	2023	2022	
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
Promobiliaria S.A.		Panama	Buying, selling, building, modifying, administering, leasing and in general entering into any contract for the disposal, improvement, use and usufruct of real estate not necessary for the operation of property owned by the companies that make up the EPM Group.	100%	100%	-	-	8/09/2015
EPM Latam S.A.		Panama	Make capital investments in companies.	100%	100%	-	-	17/05/2007
EPM Capital México S.A. de C.V.	(3)	Mexico	It develops infrastructure projects related to energy, lighting, gas, telecommunications, sanitation, water treatment plants, sewerage, wastewater treatment, buildings, as well as their operation, studies and services.	100%	100%	-	-	4/05/2012
EPM Chile S.A.		Chile	It develops projects in energy, lighting, gas, telecommunications, sanitation, water purification, sewerage and wastewater treatment plants, as well as providing these services and participating in all types of public or private tenders and auctions.	100%	100%	-	-	22/02/2013
Investments & Projects Hidrosur SpA	(4)	Chile	Participate in all types of tenders, tenders, auctions, whether public and/or private, in the purchase of shares in national or foreign companies. Carry out strategic alliances, joint ventures and sign business collaboration agreements to compete in tenders, obtain concessions and/or authorizations. Provide all types of advice and services directly or indirectly related to the activities carried out and in which society is involved.	100%	100%	-	-	16/12/2014

Name of the subsidiary	Ref.	Location (Country)	Main Activity	*Percentage of ownership and voting rights*		*Non-controlling party share percentage*		Date of establishment
				2023	2022	2023	2022	
Tecnología Intercontinental S.A. de C.V. TICSA		Mexico	Dedicated to the study, development, promotion and execution of industrial projects, to the design, manufacture, assembly and assembly of machinery, the development of technology including commercialization, commercial representation and commerce in general.	100%	100%	-	-	28/07/1980
ENSA Servicios S.A.		Panama	Provision of technical, commercial and any other complementary services to the provision of the electricity service, without limiting other analogous, related and/or compatible services that constitute an added value to the activities described.	51.17%	51.16%	48.84%	48.84%	29/11/2017
Somos Servicios Integrados S.A.	(5)	Panama	Integrate commercial establishments to promote digital commerce in an agile, safe and reliable way for customers/users of the Colombian company Empresas Públicas de Medellín E.S.P., its affiliates and subsidiaries; In the same way, to offer financing alternatives to the clients/users of the Colombian company Empresas Públicas de Medellín E.S.P., its affiliates and subsidiaries for the acquisition of goods and services, to offer loyalty programs and new business models, which generate value and significant improvements in people's daily lives, companies and cities.	100%	-	-	-	1/09/2023

Name of the subsidiary	Ref.	Location (Country)	Main Activity	*Percentage of ownership and voting rights*		*Non-controlling party share percentage*		Date of establishment
				2023	2022	2023	2022	
EPM Renovables S.A.	(6)	Panama	Carry out management activities, strategic planning, participation in investments and businesses of renewable electricity generation and in the production of new sources of green fuels; research and development related to the generation of renewable electricity and new sources of green fuels; Investing in financial businesses and companies holding financial businesses, carrying out the operations and acts that are relevant to the holding and management of such investments; among other transactions permitted by law to corporations in the Republic of Panama.	100%	-	-	-	3/11/2023
FID 20431 SOMOS EPM (formerly Patrimonio Autónomo Financiación Social)	(7)	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	0%	100%	-	-	14/04/2008
FID 20432 SOMOS CHEC		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.	80.10%	80.10%	19.90%	19.90%	10/11/2020
FID 20433 SOMOS EDEQ		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.	92.85%	92.85%	7.15%	7.15%	10/11/2020
FID 20434 SOMOS ESSA		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.	74.05%	74.05%	25.95%	25.95%	10/11/2020

Name of the subsidiary	Ref.	Location (Country)	Main Activity	*Percentage of ownership and voting rights*		*Non-controlling party share percentage*		Date of establishment
				2023	2022	2023	2022	
FID 269 GET IT CREDIEEGSA		Guatemala	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.	80.90%	80.90%	19.10%	19.10%	5/01/2022
FID 20435 SOMOS CENS		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.	91.52%	0.00%	8.48%	0.00%	30/09/2022

[1] *During 2023, two capitalizations of $350,000 and $250,000 were made in September and December respectively, in which only EPM participated.*

[2] *During the year 2023, capitalizations of $2,043 have been made, which were made in March, July and August, for $1,000, $600 and $443 respectively.*

[3] *Reimbursement of EPM Capital Mexico's contributions to EPM was made. On 11/30/2023, MXN 100,000,000 equivalent to USD 5,749,770.01 were transferred from EPM Capital México.*

[4] *In December 2023, the statutory capital was increased by 14,400 new shares, new statutory capital: USD 290,150,000 divided into 290,150 shares. (Shareholder EPM Chile S.A. 100 %).*

[5] *On September 1, 2023, the Company SOMOS SERVICIOS INTEGRADO S.A. was incorporated with domicile in the Republic of Panama, according to Public Deed 5436 of the Fifth Notary of the Circuit of Panama.*

[6] *On August 1, 2023, the Board of Directors of this company authorized the issuance of one (1) share in the name of EPM. And on November 3, 2023, 99 shares were issued for a total of 100 shares worth a total of USD$ 10,000 (The sole shareholder is EPM ESP – 100 %)*

[7] *In November 2023, the sale of the Patrimonio Autónomo Financiación Social to the company SOMOS servicios integrado S.A. was carried out by $280,645.*

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:

2023	Current Assets	Non-current assets	Current liabilities	Non-current liabilities	Ordinary income	Period Result Continued operations	Other Comprehensive income	Total comprehensive income	Statement of cash flows
Elektra Noreste S.A. (ENSA)	835,072	2,597,058	1,403,402	1,143,850	3,045,991	226,436	(256,083)	(29,647)	24,625
Empresa Eléctrica de Guatemala S.A. (EEGSA)	914,211	1,862,256	588,020	760,416	3,272,272	270,903	(309,846)	(38,943)	37,508
Electrificadora de Santander S.A. E.S.P. (ESSA)	595,550	2,063,612	500,340	1,075,600	2,097,785	220,902	(24,912)	195,990	163,175
Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS)	413,812	1,259,083	395,102	786,582	1,418,185	68,595	(33,018)	35,577	60,313
Distribuidora Eléctrica del Sur S.A. de C.V. (DELSUR)	343,440	493,591	339,421	310,937	1,503,577	76,778	(46,247)	30,531	6,624
Central Hidroeléctrica de Caldas S.A. E.S.P. (CHEC)	326,371	1,234,521	362,366	582,635	1,313,909	171,702	(2,546)	169,156	44,701
Comercializadora Eléctrica de Guatemala S.A. (COMEGSA)	154,036	1,060	53,982	15,723	740,557	15,956	(22,261)	(6,305)	4,812
Empresa de Energía del Quindío S.A. E.S.P. (EDEQ)	174,644	352,599	125,972	189,444	428,759	59,853	(3,618)	56,235	60,354
Transportista Eléctrica Centroamericana S.A. (TRELEC)	49,221	1,283,013	156,902	346,251	237,174	118,630	(201,766)	(83,136)	231
Aguas Regionales EPM S.A. E.S.P.	33,212	250,937	43,727	89,840	89,211	8,558	-	8,558	6,569
Other participations [1]	961,597	5,381,262	634,658	827,993	1,060,199	662,744	(146,600)	516,144	589,386

Amounts stated in millions of Colombian pesos -

2023	Current Assets	Non-current assets	Current liabilities	Non-current liabilities	Ordinary income	Period Result Continued operations	Other Comprehensive income	Total comprehensive income	Statement of cash flows
Elektra Noreste S.A. (ENSA)	1,007,275	3,096,810	1,875,982	1,186,262	2,834,416	159,300	149,880	309,180	23,576
Empresa Eléctrica de Guatemala S.A. (EEGSA)	1,096,867	2,330,707	717,690	1,046,268	3,000,623	228,654	238,558	467,212	37,470
Electrificadora de Santander S.A. E.S.P. (ESSA)	577,446	1,984,427	561,812	995,654	1,712,098	234,348	16,477	250,825	198,425
Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS)	427,632	1,048,152	326,678	600,475	1,232,156	131,200	19,838	151,038	65,477
Distribuidora Eléctrica del Sur S.A. de C.V. (DELSUR)	289,802	594,578	332,450	343,589	1,469,927	54,227	29,123	83,350	23,108
Central Hidroeléctrica de Caldas S.A. E.S.P. (CHEC)	372,040	1,025,435	280,773	510,668	1,103,095	201,461	3,075	204,536	35,340
Comercializadora Eléctrica de Guatemala S.A. (COMEGSA)	173,355	1,449	43,577	17,229	614,015	20,921	14,975	35,896	10,591
Empresa de Energía del Quindío S.A. E.S.P. (EDEQ)	149,140	258,604	108,026	109,432	354,021	48,817	1,854	50,671	25,006
Transportista Eléctrica Centroamericana S.A. (TRELEC)	101,119	1,555,387	181,804	535,938	220,336	110,902	140,630	251,532	1,421
Aguas Regionales EPM S.A. E.S.P.	46,019	216,253	38,006	82,243	84,204	2,305	-	2,305	13,181
Other participations [1]	869,020	5,171,996	565,250	774,544	934,591	672,370	37,315	709,685	508,536

[1] *It corresponds to investments in subsidiaries where the non-controlling interest is not significant in terms of their equity and/or the amount of the financial figures of each entity, and includes the following subsidiaries: Hidroecológica del Teribe S.A., Energética 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., 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. y Almacenaje y Manejo de Materiales Eléctricos S.A.*

The result for the period, dividends paid, and equity allocated to non-controlling interests as of the date of the reporting period is as follows:

Participaciones no controladoras	2023			
	Patrimonio	Resultado del periodo	Otro Resultado integral	Dividendos pagados
Elektra Noreste S.A. (ENSA)	431,731	110,382	2	20
Electrificadora de Santander S.A. E.S.P. (ESSA)	281,137	57,339	(6,466)	30,430
Empresa Electrica de Guatemala S.A. (EEGSA)	272,725	51,737	126	28,484
Central Hidroelectrica de Caldas S.A. E.S.P. (CHEC)	122,557	34,167	(507)	-
Transportista Electrica Centroamericana S.A. (TRELEC)	158,337	22,656	-	4,790
Centrales Electricas del Norte de Santander S.A. E.S.P.	41,659	5,817	(2,800)	7,880
Distribuidora de Electricidad del Sur S.A. de C.V. (DELSUR)	25,020	10,443	35	9,032
Aguas Regionales EPM S.A. E.S.P.	38,300	2,177	-	-
Comercializadora Electrica de Guatemala S.A. (COMEGSA)	16,308	3,047	-	4,688
Empresa de Energia del Quindio S.A. E.S.P. (EDEQ)	15,135	4,277	(258)	2,479
Otras participaciones no controladas [1]	30,824	10,550	(4)	8,309

- Cifras en millones de pesos colombianos -

Participaciones no controladoras	2022			
	Patrimonio	Resultado del periodo	Otro Resultado integral	Dividendos pagados
Elektra Noreste S.A. (ENSA)	508,543	77,796	297	11
Empresa Electrica de Guatemala S.A. (EEGSA)	317,717	43,668	(109)	25,647
Electrificadora de Santander S.A. E.S.P. (ESSA)	260,674	60,820	4,276	30,580
Transportista Electrica Centroamericana S.A. (TRELEC)	179,285	21,180	-	2,872
Central Hidroelectrica de Caldas S.A. E.S.P. (CHEC)	120,595	40,089	612	30,287
Centrales Electricas del Norte de Santander S.A. E.S.P.	46,529	11,127	1,682	7,055
Aguas Regionales EPM S.A. E.S.P.	36,123	586	-	-
Distribuidora de Electricidad del Sur S.A. de C.V. (DELSUR)	27,869	7,134	40	61,882
Comercializadora Electrica de Guatemala S.A. (COMEGSA)	21,771	3,996	-	4,085
Empresa de Energia del Quindio S.A. E.S.P. (EDEQ)	13,596	3,488	132	2,863
Otras participaciones no controladas [1]	34,626	10,159	5	7,380

- Cifras en millones de pesos colombianos -

[1] *It 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., Energetica 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. y Almacenaje y Manejo de Materiales Eléctricos S.A.*

9.1. Significant Restrictions

As of December 31, 2023 and 2022, the Group has no significant restrictions on accessing or using the assets, settling liabilities of the Group, nor do

non-controlling interests have protective rights that may restrict the Group's ability to access or use the assets and settle the liabilities of subsidiaries or restrict dividends and other capital distributions.

9.2. Consolidated Structured Entities

As of December 31, 2023 and 2022, the Group owns the following consolidated structured entities:

Structured Entity	2023			
	Participation in the entity	Total Assets	Total liabilities	Net result of the period
FID 20431 SOMOS	100%	294,404	18,736	49,455
FID 20432 SOMOS CHEC	80.10%	33,637	1,173	5,335
FID 20433 SOMOS EDEQ	92.85%	9,586	466	1,428
FID 20434 SOMOS ESSA	74.05%	16,150	692	1,077
FID 269 CONSÍGUELO	80.90%	5,238	952	(2,304)
FID 20435 SOMOS CENS	91.52%	2,576	(131)	273

Amounts stated in millions of Colombian pesos -

Structured Entity	2022			
	Participation in the entity	Total Assets	Total liabilities	Net result of the period
FID 20431 SOMOS EPM (before Patrimonio Autónomo Financiación Social)	100%	238,799	18,146	26,945
FID 20432 SOMOS CHEC	80.10%	28,501	825	2,243
FID 20433 SOMOS EDEQ	92.85%	7,237	407	401
FID 20434 SOMOS ESSA	74.05%	8,432	(161)	(452)
FID 269 CONSÍGUELO	80.90%	2,121	404	(2,001)
FID 20435 SOMOS CENS	91.52%	979	(5)	29

Amounts stated in millions of Colombian pesos -

The Group is under no obligation to provide financial support to the above structured entities.

9.3. Loss of control of subsidiaries

As of December 31, 2023 and 2022, there were no transactions or economic events that implied the loss of control of subsidiaries.

Note 10.

Investments in associates

The details of the Group's investments in associates as of the date of the reporting period are as follows:

Associate name	Location (Country)	Main activity	Percentage of participation and voting rights		Creation date
			2023	2022	
Hidroeléctrica Ituango S.A. E.S.P.	Colombia	Promotion, design, construction, operation, maintenance and commercialization of energy at the national and international level of the Pescadero Hituango Hydroelectric Power Plant	46.45%	46.45%	8/06/1998
Hidroeléctrica del Rio Aures S.A. E.S.P. [1]	Colombia	Generation and commercialization of electric power through a hydroelectric power plant, located in the jurisdiction of the municipalities of Abejorral and Sonson. Of the Department of Antioquia	8.43%	11.81%	14/05/1997
UNE EPM Telecomunicaciones S.A.	Colombia	Provision of telecommunications services Information and communication technologies Information services and follow-up activities.	50.00%	50.00%	23/06/2006
Inversiones Telco S.A.S.	Colombia	Invest in companies whose social objects are based on the provision of business process outsourcing (BPO) services for companies, especially but not limited to telecommunications companies.	50.00%	50.00%	5/11/2013

[1] *In January 2023, a capitalization in Hidroeléctrica del Río Aures S.A. E.S.P. was presented, in which EPM did not participate and consequently its stake is reduced. As of June 2023, it is reclassified to an uncontrolled investment due to the resignation of the representation of the board of directors of this company.*

The value of investments in associates as of the reporting period is as follows:

Associate	2023				2022				
	Investment value				Investment value				
	Cost	Equity method	Impairment	Total	Cost	Equity method	Impairment	Dividends	Total
UNE EPM Telecomunicaciones S.A.	2,642,488	(1,681,261)	-	961.227	2,342,488	(1,282,346)	-	-	1,060,142
Inversiones Telco S.A.S.	55.224	21.042	-	76.266	55.224	26.554	-	(8.167)	73.611
Hidroeléctrica Ituango S.A. E.S.P.	34.313	(9.262)	(6,420)	18.631	34.313	(10.612)	(6,420)	-	17.281
Hidroeléctrica del Río Aures S.A.	-	-	-	-	2.478	86	-	-	2.564
Total investments in associates	**2,732,025**	**(1,669,481)**	**(6,420)**	**1,056,124**	**2,434,503**	**(1,266,318)**	**(6,420)**	**(8.167)**	**1,153,598**

-Amounts stated in millions of Colombian pesos -

The detail of the equity method recognized in income for the period and in other comprehensive income for the period is as follows:

Associated	2023			2022		
	Period equity method		Total	Period equity method		Total
	Period Result	Other comprehensive result		Period Result	Other comprehensive result	
UNE EPM Telecomunicaciones S.A.	(571,895)	167,274	(404,621)	(236,163)	634	(235,529)
Inversiones Telco S.A.S.	2,251	-	2,251	4.491	-	4,491
Hidroeléctrica Ituango S.A. E.S.P.	1,350	-	1,350	(178)	-	(178)
Hidroeléctrica del Río Aures S.A. E.S.P.	-	-	-	(25)	-	(25)
VE Servicios de Eficiencia Energética S.A.S.	-	-	-	1,498	-	1,498
Total	(568,294)	167,274	(401,020)	(230,377)	634	(229,743)

Amounts stated in millions of Colombian pesos -

The financial information of the Group's significant associates as of the date of the reporting period is as follows. All associates are accounted for by the equity method in the consolidated financial statements:

2023	Current Assets	Non-current assets	Current liabilities	Non-current liabilities	Ordinary income	Period Result	Other comprehensive result	Total comprehensive income	Dividend income
						Continued operations			
UNE EPM Telecomunicaciones S.A.	1,169,599	9,090,419	2,724,878	7,176,338	5,457,904	(1,144,778)	334,547	(810,231)	-
Inversiones Telco S.A.S.	183,606	82,710	92,334	22,044	500,928	4,501	-	4,501	-
Hidroeléctrica Ituango S.A. E.S.P.	37,336	65,545	1,408	50,669	-	3,370,662		3,370,662	-
Hidroeléctrica del Río Aures S.A. E.S.P.	5,439	16,675	181	-	-	(105)		(105)	-

Amounts stated in millions of Colombian pesos -

2022	Current Assets	Non-current assets	Current liabilities	Non-current liabilities	Ordinary income	Period Result	Other comprehensive result	Total comprehensive income	Dividend income
						Continued operations			
UNE EPM Telecomunicaciones S.A.	1,111,351	8,429,365	2,849,791	6,133,304	5,436,328	(473,812)	-	(473,812)	-
Inversiones Telco S.A.S.	195,575	125,656	115,996	58,010	561,016	8,982	-	8,982	8,167
Hidroeléctrica Ituango S.A. E.S.P.	37,911	65,565	1,550	50,928	1,748	1,720		1,720	-
Hidroeléctrica del Río Aures S.A. E.S.P.	5,439	16,675	181	-	-	(105)		(105)	-

Amounts stated in millions of Colombian pesos -

The financial information of these companies, which is the basis for applying the equity method, is prepared under Colombian Accepted Accounting and Financial Reporting Standards (NCIF) and adjusted to the Group's accounting policies.

Significant restrictions

As of December 31, 2023 and 2022, the Group has no significant restrictions on investments in associates related 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 it will be mandatory to distribute at least fifty percent (50 %) of the net profits for the period as dividends after legal, statutory and occasional appropriations and/or reserves, provided that the level of consolidated financial indebtedness does not exceed 2 times the EBITDA of the same period.

Note 11.

Investments in joint ventures

The detail of the Group's joint ventures as of the date of the reporting period is as follows:

Joint venture name	Location (Country)	Main activity	Percentage of participation and voting rights		Creation date
			2023	2022	
Parques del Río S.A.S. [1]	Colombia	Construction, operation and maintenance of the Parques del Río Medellín project, as well as acting as urban manager of the project.	33%	33%	26/11/2015
Centro de Servicios Compartidos S.A.S [2]	Colombia	General Technology Services, Technology Infrastructure Services, Specialized Business Technology Services, and other Specialized Services.	50%	50%	5/08/2020

[1] *Joint venture established 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 underpinning of EPM's participation in this company is based on the following aspects:*

- *Apply EPM's expertise in large-scale infrastructure developments.*
- *EPM is authorized to participate by the POT.*

[2] *Joint venture established on August 5, 2020, in which CaribeSol de la Costa S.A.S. E.S.P. and AFINIA participate, the objective of which is the provision of technology services to both companies.*

The value of investments in joint ventures as of the balance sheet date was:

Joint venture name	2023			2022		
	Investment value			Investment value		
	Cost	Equity method	Total	Cost	Equity method	Total
Parques del Río S.A.S.	99	(74)	25	99	(63)	36
Centro de Servicios Compartidos SAS	29,868	(12,154)	17,714	29,868	(12,738)	17,130
Total	29,967	(12,228)	17,739	29,967	(12,801)	17,166

- Amount stated in millions of Colombian pesos -

The detail of the equity method recognized in profit or loss for the period and in other comprehensive income for the period is as follows:

Joint venture	2023		2022	
	Equity method participation	Total	Equity method participation	Total
	Profit or loss for the period		Profit or loss for the period	
Parques del Río S.A.S.	(11)	(11)	(9)	(9)
Centro de Servicios Compartidos SAS	584	584	(6,879)	(6,879)
Total	**573**	**573**	**(6,888)**	**(6,888)**

- Amount stated in millions of Colombian pesos -

The financial information of the Group's significant joint ventures as of the date of the reporting period is as follows. All joint ventures are accounted for using the equity method in the consolidated financial statements:

2023	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Revenue	Profit or loss for the period	Total comprehensive income
						Continued operations	
Parques del Río S.A.S.	77	-	-	-	-	(26)	(26)
Centro de Servicios Compartidos SAS	3,762	30,479	304	-	-	821	821

- Amount stated in millions of Colombian pesos -

2022	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Revenue	Profit or loss for the period	Total comprehensive income
						Continued operations	
Parques del Río S.A.S.	110	-	-	-	-	(23)	(23)
Centro de Servicios Compartidos SAS	40,109	-	2,829	-	32,046	(26,919)	(26,919)

- Amount stated in millions of Colombian pesos -

As of December 31, 2023, Parques del Rio S.A.S. is in the pre-operational stage and has no operating income.

The financial information of the companies, the basis for applying the participation method, is prepared under IFRS and in accordance with the Group's accounting policies.

Significant Restrictions

As of December 31, 2023 and 2022, the Group has no significant restrictions on investments in joint ventures related 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

Details of the Group's trade and other receivables as of the reporting periods are as follows:

Trade and other accounts receivable	2023	2022
Non-current		
Public service Debtors[1]	3,048,413	1,958,242
Value-of-the-public services Depreciation[2]	(850,565)	(576,453)
Employee loans	147,016	167,792
Value-based loans employees Depreciation	(265)	(41)
Contracts for the management of public services	594,312	712,417
Other services[3]	34	36
Other Debtors Receivable	146,821	202,107
Value-based other loans Depreciation	(24,662)	(22,929)
Non-current total	**3,061,104**	**2,441,171**
Current		
Public service Debtors[1]	9,696,236	8,492,921
Value-of-the-public services Depreciation[2]	(2,332,062)	(1,915,981)
Employee loans	95,956	56,552
Value-based loans employees Depreciation	(94)	(79)
Other contracts with customers	5,049	5,140
Dividends and participations receivable[4]	1	17
Contracts for the management of public services	110,419	113,661
Indemnities	6,933	7,056
Other services[3]	536,652	418,202
Other Debtors Receivable	879,991	798,037
Value-based other loans Depreciation	(535,689)	(470,764)
Total current	**8,463,392**	**7,504,762**
Total	**11,524,496**	**9,945,933**

- Amounts stated in millions of Colombian pesos

The total portfolio increased by $1,578,563, equivalent to 15.87 %, which is mainly explained by the following reasons:$1,578,563, equivalent to 15.87 %, which is mainly explained by the following reasons:

[1]Accounts receivable from utility debtors do not accrue interest and the term for collection is generally 12 days; with the exception of the non-current portfolio that originates from the constitution of long-term financing plans for the attachment of new customers to the system or as a result of financing plans for portfolio recovery. Its increase of $2,293,486 is mainly due to EPM Matriz and the subsidiary AFINIA, due to the increase in the massive billing of residential public services, portfolio estimates and the tariff option. In addition, at EPM Matriz the increase is explained by energy in the stock market pending payment by XM as a guarantee of the entry into operation of turbines 3 and 4 of the Ituango Hydroelectric Power Plant.

Note: The tariff option allows you to moderate abrupt increases in the tariff by accumulating balances paid by the user later, over a longer period of time. The behavior of this account receivable is as follows:

Subsidiary	Date	Capital balance	Interes balance	Cumulative total
AFINIA	December de 2023	1,159,751	76,474	1,236,225
	December de 2022	167,563	263,043	430,606
EPM	December de 2023	52,190	108,750	160,940
	December de 2022	530,706	39,155	569,861
CENS	December de 2023	(5,460)	34,839	29,379
	December de 2022	144,327	926	145,253
CHEC	December de 2023	42,859	16,575	59,434
	December de 2022	74,648	5,302	79,950
ESSA	December de 2023	9,198	19,036	28,234
	December de 2022	103,180	868	104,048
EDEQ	December de 2023	15,554	9,580	25,134
	December de 2022	44,221	474	44,695
Total Group 2023		**1,274,092**	**265,254**	**1,539,346**
Total Group 2022		**1,064,645**	**309,768**	**1,374,413**

- Amounts stated in millions of Colombian pesos -

The cumulative total corresponding to the rate option includes the interest paid for $575,022 and the estimated recovery period of the rate option portfolio is 6 years, starting in 2024.

[2] *The impairment of the utility portfolio increased mainly as a result of the increase in the massive billing of residential utilities and the receivable for tariff option concept, given in the energy subsidiaries CENS, CHEC, EDEQ, AFINIA, ESSA and EPM Matriz.*
[3] *In the other services account, the increase of $118,448 is mainly due to increased construction projects of wastewater treatment plants in the subsidiary TICSA.*
[4] *The decrease in the dividends and shares receivable account is due to the payment made by the company ENEL S.A.*

Long-term receivables are measured primarily at amortized cost under the effective interest rate method and short-term receivables are presented at face value, except for accounts receivable which are measured at fair value of: i) the account receivable associated with the contract for the firm supply of liquid fuel (ACPM) for the La Sierra and Termodorada thermoelectric plants, the updating of which is carried out in accordance with the value of the fuel unit stipulated in the contract.

See note 44 | Measuring fair value on a recurring and non-recurring basis

Trade receivable from reinsurance activity

The Group defined that the business model for accounts receivable is to receive contractual cash flows, for which reason they are initially measured at fair value and subsequently measured at amortized cost, using the effective interest rate.

The detail of accounts receivable reinsurance activity is as follows:

Accounts receivable reinsurance activity	2023	2022
Insurance and reinsurance services[1]	41,106	1,334
Total	**41,106**	**1,334**

- Amounts stated in millions of Colombian pesos -

[1]*It corresponds to the subscription of the CAR Ituango program, carried out in December 2023 with the reinsurer Seguros Generales Suramericana.*

Impairment of accounts receivable

The Group measures the value correction for expected losses over the life of the asset, using the simplified approach, which consists of taking the present value of credit losses arising from all possible default events, at any time during the life of the operation.

This alternative is taken given that the volume of customers handled by the Group is very high and the measurement and control of risk in stages can lead to errors and an underestimation of impairment.

The expected loss model is a forecasting tool that projects the probability of default or default on the portfolio within the next twelve months. Each obligation is assigned an individual probability of non-payment that is calculated from a probability model, which involves sociodemographic, product, and behavioral variables.

Although the impairment forecast for the annual term is obtained based on the customer's payment behavior data, contained during the period in question, the same does not occur when the impairment of the monthly periods comprising the annual term is recorded. In the latter case, the impairment recorded for the month under assessment is the one obtained with the payment behavior data of the previous month

As of the cut-off date, the age analysis of accounts receivable at the end of the period reported to be impaired is as follow:

Accounts receivable aging	2023		2022	
	Gross carrying amount	Expected credit losses over the lifetime	Gross carrying amount	Expected credit losses over the lifetime
Public service debtors				
Current	8,774,232	(1,056,226)	7,673,876	(846,414)
Less than 30 days	1,294,875	(83,437)	822,184	(64,816)
30-60 days	226,026	(67,720)	198,777	(55,224)
61-90 days	272,001	(69,091)	181,852	(53,979)
91-120 days	124,020	(81,777)	100,263	(70,961)
121-180 days	215,974	(176,447)	170,474	(141,178)
181-360 days	470,101	(423,602)	319,316	(303,563)
Greater than 360 days	1,367,420	(1,224,326)	984,421	(956,299)
Total debtors for public services	**12,744,649**	**(3,182,626)**	**10,451,163**	**(2,492,434)**
Other debtors				
Current	1,050,863	(103,598)	906,038	(33,736)
Less than 30 days	119,689	(9,683)	103,928	(11,891)
30-60 days	13,516	(3,972)	35,035	(10,377)
61-90 days	18,208	(7,931)	17,985	(6,683)
91-120 days	10,785	(4,849)	14,886	(5,370)
121-180 days	23,511	(8,113)	47,577	(13,844)
181-360 days	131,675	(20,225)	123,987	(26,676)
Greater than 360 days	1,154,938	(402,341)	1,231,582	(385,236)
Total Other Debtors	**2,523,185**	**(560,712)**	**2,481,018**	**(493,813)**
Total debtors	**15,267,834**	**(3,743,338)**	**12,932,181**	**(2,986,247)**

- Amounts stated in millions of Colombian pesos -

Regarding the age of non-performing loans in the portfolio, it is mainly concentrated in the age range without arrears or in force, both for "public services debtors", corresponding to accounts receivable related to the estimates of commercial operation of energy, gas and tariff option, and in "other debtors", mainly for accounts receivable for new projects for the construction of wastewater plants. in the TICSA subsidiary.

The impairment of the portfolio, debtors and public services, is concentrated in the current range and greater than 360 days. The first of these is explained by the deterioration of the massive billing of residential public services and by the receivable of the tariff option and the second, due to the rolling of the massive portfolio of the energy service and the sale of block energy for public lighting, especially in the subsidiary AFINIA and EPM Parent. Other debtors are also in the age range without arrears, mainly explained by the reactivation in the use of the Somos program card.

The reconciliation of the portfolio's expected credit losses is as follows:

Expected credit losses over the life of the asset	2023	2022
Value correction at the beginning of the period	(2,986,248)	(2,466,152)
Impairment changes to the accounts receivable held at the beginning of the period	(718,245)	(665,629)
Financial assets not derecognized during the Period [2]	394,858	621,226
New financial assets originated or purchased	(1,263,762)	(961,050)
Cancellations	746,179	492,560
Changes in Risk Models/Parameters	36,172	27,715
Difference in change and other movements	47,708	(34,918)
Final Drive Account Balance [1]	**(3,743,338)**	**(2,986,248)**

Amounts stated in millions of Colombian pesos -

[1]The value of the accumulated impairment reflected an increase of $757,090, mainly explained by the increase in the portfolio of massive billing of residential utilities, block energy sales and tariff options. The deterioration of the latter concept is detailed below:

Subsidiary	Date	Cumulative Total
AFINIA	December 2023	(109,643)
	December 2022	(262,054)
EPM	December 2023	(32,193)
	December 2022	(102,193)
CENS	December 2023	(30,829)
	December 2022	(12,829)
CHEC	December 2023	(15,991)
	December 2022	(9,213)
ESSA	December 2023	(11,545)
	December 2022	(5,359)
EDEQ	December 2023	1,821
	December 2022	(5,211)
Total Group 2023		**(198,380)**
Total Group 2022		**(396,859)**

- Amounts stated in millions of Colombian pesos -

The reconciliation of the expected credit losses of the portfolio is as follows:

Accounts receivable balance	2023	2022
Financial assets initial balance	12,932,181	11,626,614
New financial assets originated or purchased	65,495,584	52,475,698
Financial asset write-offs	(62,588,995)	(50,836,533)
Derecognized financial assets	(394,858)	(621,226)
Valuation at amortized cost	(22,838)	86,345
Other changes	(153,240)	201,283
Final Drive Account Balance[1]	**15,267,834**	**12,932,181**

- Amounts stated in millions of Colombian pesos -

[1] The increase of $2,335,653 corresponds to the accounts receivable of the residential public services, estimates, tariff option and for the energy in the stock market pending payment by XM as a guarantee of the entry into operation of turbines 3 and 4 of the Ituango Hydroelectric Power Plant.

The Group penalises the values of impaired financial assets against impairment recognised in a corrective account when:

- Recorded receivables do not represent certain rights, assets or obligations for the entity.
- It is not possible to collect the right or obligation, by coercive or judicial jurisdiction.
- It is not possible to legally impute the value of the portfolio to any person, natural or legal.Evaluada y establecida la relación de costo beneficio, resulte más oneroso adelantar el proceso de cobro que el valor de la obligación.
- Once the cost-benefit ratio has been evaluated and established, it is more onerous to advance the collection process than the value of the obligation

The Group recognizes all impairment losses through a corrective account and not directly.

Responsible Bodies for Punishment

The person or agency with the appropriate authorization approves the punishment in each company.

Note 13.

Other Financial Assets

The detail of other financial assets at the end of the period is as follows:

Other financial assets	2023	2022
Non-current		
Derivatives designated as hedging instruments under hedge accounting		
Swap Contracts[1]	1,111	466,733
Futures contracts	69	
Total derivatives designated as hedging instruments under hedge accounting	**1,180**	**466,733**
Financial assets measured at fair value through profit or loss		
Fixed income securities	5,444	9,331
Equity securities	426,300	128,814
Fiduciary rights	330,022	316,773
Total financial assets measured at fair value through profit or loss	**761,766**	**454,918**

Financial assets designated to fair value through the other comprehensive income		
Equity instruments[3]	1,562,842	2,100,071
Total financial assets designated to fair value through the other comprehensive income	**1,562,842**	**2,100,071**
Financial assets measured at amortized cost		
Fixed income securities	1,258	1,745
Total financial assets measured at amortized cost	**1,258**	**1,745**
Financial leasing	14,265	-
Total other non-current financial assets	**2,341,311**	**3,023,468**
Current		
Derivatives designated as hedging instruments under hedge accounting		
Futures contracts	19	-
Total derivatives designated as hedging instruments under hedge accounting	**19**	**-**
Financial assets measured at fair value through in profit or loss		
Derivatives that are not under hedge accounting [5]	31,453	67,870
Fixed income securitie[2]	420,809	550,835
Investments pledged[4]	808	233,004
Fiduciary rights	316	17,719
Total financial assets measured at fair value through profit or loss	**453,386**	**869,428**
Financial assets measured at amortized cost		
Fixed income securities	48,831	178,046
Total financial assets measured at amortized cost	**48,831**	**178,046**
Financial leasing	15,061	(1)
Total other current financial assets	**517,297**	**1,047,473**
Total other financial assets	**2,858,608**	**4,070,941**

- Amounts stated in millions of Colombian pesos -

[1] *Corresponds to the right of swaps under hedge accounting. Its variation is due to the revaluation of the Colombian peso against the dollar of 20.54 % during the year and higher interest rates, specifically the IBR, which causes the duty to depreciate considerably.*

[2] *The decrease in fixed income securities of $130,026 is explained by the divestment for use of the resources in payments for goods and services associated with the operation of the companies, the recompositions of the portfolio of the subsidiary Aguas Nacionales, consisting of transferring the resources to bank accounts with special remuneration and the effect of the revaluation of 988.15 pesos in the Colombian currency that impacted the balances of the Maxseguros portfolio.*

[3] *The decrease in equity instruments was caused by the reduction in the share price of Interconexión Eléctrica S.A. E.S.P., given that their fair value is determined by the market price.*

[4] *In pledged investments, the decrease is due to the securities held as collateral for the Ituango guarantee, which ceased to be pledged as of September 2023.*

[5] *It corresponds to the climate derivative contracted to cover the existing risk of dry seasons that imply a decrease in hydropower generation and the rise in energy prices on the stock market. This financial instrument aims to provide protection to the organization when events materialize that may prevent the fulfillment of contractual commitments that involve buying energy on the stock exchange at market prices that may be unfavorable. With the climate derivative, part of this impact is transferred to the market, which would reduce the effect on the Group's financial results.*

Financial assets designated 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 primarily for the purpose of being sold in the short term.

This includes investments 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 intent.

Conventional purchases and sales of financial assets are accounted for using the trading date

13.1. Equity investments designated at fair value through profit or loss through comprehensive income

El detalle de las inversiones en instrumentos de patrimonio designadas a valor razonable a través del otro resultado integral es el siguiente:

Equity investment	2023	2022
Interconexión Eléctrica S.A. E.S.P.[1]	1,512,779	2,052,213
Promioriente S.A. E.S.P.	39,541	39,541
Reforestadora Industrial de Antioquia S.A.	4,947	4,947
Hidroeléctrica del Rio Aures S.A. E.S.P.	2,478	-
Electrificadora del Caribe S.A. E.S.P.	1,385	1,385
Unidad de Transacciones SA. de C.V.	581	731
Other investments[2]	1,131	1,254
Total	**1,562,842**	**2,100,071**
Dividends recognized during the period related to investments that remain recognized at the end of the period [3]	178,222	77,059
Recognized dividends during the period	**178,222**	**77,059**

- Amounts stated in millions of Colombian pesos -

[1] *Al 31 de diciembre de 2023 el precio en bolsa de Interconexión Eléctrica S.A. E.S.P. cerró en $15,480 (2022: $21,000).*

[2] *Incluye inversiones en: Gestión Energética S.A. E.S.P., Terminal de Transporte de Bucaramanga S.A., Duke Energy Guatemala y Cia. S.A., Organización Terpel S.A., Emgesa S.A. E.S.P., Banco Davivienda S.A., Sin Escombros S.A.S., Hotel de Turismo Juana Naranjo, Central de Abastos de Cúcuta S.A., Fid Bancolombia PA Cadenalco, Fosfonorte S.A., Orazul Energy, Compañía de Alumbrado Eléctrico de Santa Ana S.A., Gestión Energética S.A. E.S.P., Compañía de Alumbrado Eléctrico de San Salvador S.A., Cenfer S.A., Credieegsa S.A., Empresa Distribuidora del Pacífico S.A. E.S.P., Banco Bilbao Vizcaya Argentaria Colombia S.A., Central Hidroeléctrica de Betania S.A. y Acerías Paz del Río S.A.*

[3] *Corresponde a los dividendos reconocidos al 31 de diciembre de 2023 por $178,222 (2022: $77,059) que se revelan en el rubro de dividendos de inversiones en el estado de flujos de efectivo.*

The equity investments indicated in the table above are not held for trading purposes but are held for medium and long-term strategic purposes. The Group's management considers that the classification for these strategic investments provides more reliable financial information than reflecting the changes in their fair value immediately in the income statement for the period.

13.2. Reclassifications of financial assets

The Group has not made any changes to the business model for the management and administration of financial assets, so no financial assets have been reclassified.

Note 14.

Leases

14.1. Arrendamiento financiero como arrendador

The most significant financial lease agreements were presented in Aguas de Antofagasta S.A.:

- Lease for the construction and lease contract of an interconnection in the adductions of the company and a mining company, whose objective is to be able to inject water into the mining company's facilities for its production processes. This lease will be for 36 months from January 1, 2023, ending on December 31, 2025, the lease payments of the contract are expressed in development units (UF).
- Lease by construction contract of Pilón, whose objective is to transfer treated wastewater. This lease will be for 12 installments counted from October 31, 2023, ending on September 30, 2024, whose rental value is expressed in development units (UF).

At the cut-off date, the minimum future payments and net investment in finance leases are distributed as follows:

Finance lease	2023	
	Gross investment	Net investment
Year one	16,544	15,640
Year two	13,986	13,687
Present value of minimum lease payments to be received	**30,530**	**29,327**

- Amounts stated in millions of Colombian pesos -

The Group, as lessor, does not have contracts that take the legal form of a lease and that in substance do not constitute a lease.

14.2. Lease that originates for right-of-use assets as lessee

As of the balance sheet date, the carrying amount of right-of-use assets is as follows (does not include right-of-use assets associated with construction, these are included in note 5 Property, plant, and equipment):

2023	Right-of-use land	Right-of-use buildings	Right-of-use plants, ducts and tunnels	Right-of-use networks, lines and cables	Right-of-use machinery and equipment	Right-of-use office furniture fixtures and equipment	Right-of-use communication and computer equipment	Right-of-use traction and elevation transport equipment	Total
Initial balance of cost	**28,978**	**741,485**	**43,977**	**126,038**	**30,062**	**1,530**	**11,890**	**236,415**	**1,220,375**
Additions	20,145	76,517	-	12,571	9,192	-	1,540	52,935	**172,900**
Disposals	(15,958)	(8,442)	-	-	-	-	(919)	(861)	**(26,180)**
Other changes	-	226	-	2,622	-	119	38	-	**3,005**
Derecognitions (-)	(6,103)	(15,361)	-	(2,471)	(5,716)	-	(210)	(51,057)	**(80,918)**
Effect of foreign currency translation	(1,551)	(6,325)	(10,323)	(9,139)	-	(210)	(587)	(243)	**(28,378)**
Final balance of cost	**25,511**	**788,100**	**33,654**	**129,621**	**33,538**	**1,439**	**11,752**	**237,189**	**1,260,804**
Accumulated amortization and impairment amount									
Initial balance of accumulated depreciation and impairment of amount	**(3,017)**	**(235,312)**	**(26,386)**	**(33,828)**	**(15,279)**	**(970)**	**(6,892)**	**(71,736)**	**(393,420)**
Disposals	930	492	-	-	-	-	919	1,047	**3,388**
Other changes	100	(635)	**154**	(727)	(5)	-	(5)	11	**(1,107)**
Derecognitions (-)	724	6,420	-	796	3,855	-	182	50,746	**62,723**
Effect of foreign currency translation	111	3,796	7,531	2,527	-	172	538	105	**14,780**
Amortization for the period	(2,743)	(34,863)	(8,222)	(9,442)	(9,755)	(313)	(1,209)	(46,007)	**(112,554)**
Impairment for the period	-	(2,065)	-	-	-	(216)	(888)	(1,584)	**(4,753)**
Impairment reversals	34	-	-	-	-	-	-	-	**34**
Final balance accumulated depreciation and impairment losses	**(3,861)**	**(262,167)**	**(26,923)**	**(40,674)**	**(21,184)**	**(1,327)**	**(7,355)**	**(67,418)**	**(430,909)**
Total final balance of net right-of-use assets	**21,650**	**525,933**	**6,731**	**88,947**	**12,354**	**112**	**4,397**	**169,771**	**829,895**

Amounts stated in millions of Colombian pesos -

2022	Right-of-use land	Right-of-use buildings	Right-of-use plants, ducts and tunnels	Right-of-use networks, lines and cables	Right-of-use machinery and equipment	Right-of-use office furniture fixtures and equipment	Right-of-use communication and computer equipment	Right-of-use traction and elevation transport equipment	Total
Initial balance of cost	**12,460**	**701,397**	**36,396**	**113,843**	**29,669**	**1,267**	**12,159**	**101,406**	**1,008,597**
Additions	16,551	37,889	(53)	4,953	393	3	290	150,986	**211,012**
Disposals	(68)	(1,022)	-	-	-	-	(82)	-	**(1,172)**
Other changes	(179)	(363)	-	-	-	-	89	-	**(453)**
Derecognitions (-)	-	(1,605)	-	-	-	(39)	(1,223)	(16,389)	**(19,256)**
Effect of foreign currency translation	214	5,189	7,634	7,242	-	299	657	412	**21,647**
Final balance of cost	**28,978**	**741,485**	**43,977**	**126,038**	**30,062**	**1,530**	**11,890**	**236,415**	**1,220,375**
Accumulated amortization and impairment amount									
Initial balance of accumulated depreciation and impairment of amount	**(1,887)**	**(201,654)**	**(14,559)**	**(24,098)**	**(7,060)**	**(608)**	**(5,345)**	**(55,468)**	**(310,679)**
Disposals	68	653	-	-	-	-	144	-	**865**
Other changes	139	590	-	725	-	-	-	(8)	**1,446**
Derecognitions (-)	-	829	-	-	-	-	125	16,389	**17,343**
Effect of foreign currency translation	(52)	(3,047)	(4,241)	(1,684)	-	(173)	(514)	(183)	**(9,894)**
Amortization for the period	(1,285)	(32,800)	(7,586)	(8,771)	(8,219)	(189)	(1,302)	(32,466)	**(92,618)**
Impairment reversals	-	117	-	-	-	-	-	-	**117**
Final balance accumulated depreciation and impairment losses	**(3,017)**	**(235,312)**	**(26,386)**	**(33,828)**	**(15,279)**	**(970)**	**(6,892)**	**(71,736)**	**(393,420)**
Total final balance of net right-of-use assets	**25,961**	**506,173**	**17,591**	**92,210**	**14,783**	**560**	**4,998**	**164,679**	**826,955**

At the cut-off date, the minimum future payments and the present value of the minimum payments of the lease liability are distributed as follows:

Finance lease	2023		2022	
	Minimum payments	Present value of minimum payments	Minimum payments	Present value of minimum payments
At one year	165,128	153,474	139,921	133,365
More than one year and up to five years	553,801	442,163	453,148	358,786
More than five years	1,225,036	399,873	1,221,711	381,995
Total financial leases	**1,943,965**	**995,510**	**1,814,780**	**874,146**
Less - value of unearned interest	(948,455)	-	(940,634)	-
Present value of minimum lease payments	**995,510**	**995,510**	**874,146**	**874,146**

Amounts stated in millions of Colombian pesos -

The most significant lease agreement is:

Lease Agreement Building Empresas Públicas de Medellín CT-085 of February 12, 2002, executed between EPM (THE COMPANIES) and the MUNICIPALITY OF MEDELLIN (MUNICIPALITY), the MUNICIPALITY is obliged to deliver by way of lease to THE COMPANIES and the latter are obliged to receive by the same title, the use and enjoyment of the real property of their property called "Edificio Empresas Públicas de Medellín", with all its constructions and improvements.

The term of the contract is 50 years from December 21, 2001, date on which the Municipality of Medellín began to appear as owner of the property.

The lease payments under the contract are readjusted each year by a percentage equal to the Consumer Price Index (CPI) at the national level, certified by DANE for the immediately preceding year.

Lease liabilities are included in Other financial liabilities in the statement of financial position.

Interest earned on lease liabilities is $286,770 (2022: $258,632).

Total lease cash outflows during the period were $232,935 (2022: $211,125).

14.3. Operating leases as lessor

The most significant operating leases agreements were presented in EPM:

Connection Agreement MA-0021450 dated January 24, 2013, entered between ECOPETROL (THE BENEFICIARY) and EPM (THE SUPPLIER), which regulates the connection of Ecopetrol to the STN at the Comuneros substation at 230 kV.

The term is 30 years for the operation and provision of the connection service as from the date of entry into operation of the project, which was February 1, 2016.

The total annual payments are indexed to the PPI, based on the PPI of the month prior to the signing of the connection contract.

Electrical infrastructure for the installation of networks by telecommunications operators. These may be renewed for a term not exceeding five years. The contract lease payments are updated according to the pole support rates regulated by the CRC (resolution 5890/2020) and multiplied by the number of poles that each customer uses; this charge is made monthly, and the rate is updated annually according to the PPI.

The value of revenue from operating leases is:

Operating leases	2023	2022
Year one	168,566	104,468
Year two	67,778	54,466
Year three	47,447	47,980
Year four	32,063	42,969
Year five	30,915	42,796
More than five years	339,647	363,424
Total operating leases	**686,416**	**656,103**

- Amounts stated in millions of Colombian pesos -

14.4. Leases that do not originate for right-of-use assets as lessee

The most significant lease agreements that do not originate right-of-use assets are in EPM: spaces for the installations and operation of antennas at weather stations, shift management system, user printing infrastructure, among others, which have no restrictions.

As of the cut-off date, future commitments for short-term leases are $11,169 (2022: $11,307).

Lease payments recognized as expenses for the period were $44,659 (2022: $42,629).

The Group, as lessee, does not have contracts that take the legal form of a lease and which in substance do not constitute a lease.

Note 15.

Guarantees

The Group has pledged the following financial assets as guarantees:

- Letters of credit, performance bonds and other guarantees for $289,078 (2022: $340,454) granted by the subsidiary ENSA to guarantee compliance with the obligations of the concession contract with the National Authority of Public Utilities of Panama and for the contracts for the purchase of energy from the generation and transmission companies.
- Retained premium of $37,074 (2022: $40,097) to the subsidiary Maxseguros by the ceding insurance company, in accordance with Colombian regulations.
- The Group has received as a guarantee from the subsidiary Maxseguros the premium withheld from reinsurance companies for $8,179 (2022: $10,248).

The Group has not received any guarantees as of December 31, 2023 and 2022, where it is authorized to sell or pledge them without default by the owner of the guarantee.

Note 16.

Other assets

The detail of other assets at the end of the reporting periods is as follows:

Other assets	2023	2022
Non-current		
Reinsurance activities [1 5]	187,436	202,293
Employee benefits [2]	76,171	65,614
Prepayments [4]	68,059	40,647
Deferred loss on leaseback transaction	18,907	19,582
Advances to suppliers [3]	7,377	2,216
Assets received in dation in lieu of payment	1,327	1,349
Other advances or credit balances due to taxes and contributions	1,032	5
Total other non-current assets	360,309	331,706
Current		
Advances to suppliers [3]	638,444	488,156
Prepayments [4]	196,197	169,445
Reinsurance activities [1 5]	172,192	192,017
Advance sales tax	89,505	23,248
Sales tax	57,693	38,287
Advance payment of industry and commerce tax	43,132	31,730
Industry and commerce tax withheld	2,747	1,766
Other credit balances due to other taxes	1,829	2,099
Other advances or credit balances due to taxes and contributions	293	384
Total other current assets	1,202,032	947,132
Total other assets	1,562,341	1,278,838

- Amounts stated in millions of Colombian pesos -

[1] *The non-current portion corresponds to unreported recoverable loss reserves of $150,363 (2022: $162,196) and retained earnings of $37,073 (2022: $40,097).*

The current portion includes Loss Reserves receivable of $69,629 (2022: $117,325) and Deferred Premium - reinsurer portion of $102,563 (2022: $74,692).

[2] *Corresponds to loans to employees at below market rates amounting to $76,171 (2022: $65,614).*

[3] *The non-current portion corresponds to resources provided in administration for -$3 (2022 $2,148); Other advances and advances of $523 (2022: $68) and Advances on agreements and agreements of $6,857 (2022: $0).*

The current portion includes other advances and prepayments for $601,515 (2022: $440,820); resources provided in administration of $32,875 (2022: $46,064), finally, advances on agreements and arrangements and advances for travel and per diem expenses of $4,054 (2022: $1,272).

[4] *he non-current portion includes Insurance of $59,969 (2022: $33,229), Premium on legal stability contracts for $3,790 (2022: $4,682); Maintenance for $2,644 (2022: $2,419), Leases for $1,406 (2022: $67), and Goods and Services for $250 (2022: $250).*

The current portion includes Insurance for $140,125 (2022: $110,872), mainly made up of the Ituango Hydroelectric Project All-Risk Policies; Goods & Services, Print, Publications, Subscriptions & Affiliations, and Fees of $24,831 (2022: $31,165); Leases and Maintenance for $23,570 (2022: $20,816) and Other Prepaid Goods and Services for $7,671 (2022: $6,592).

[5]It corresponds to the technical reserves in charge of reinsurers, the details of which are as follows

Concept	2023	2022
Unreported reserves for recoverable losses	150,363	162,196
Deferred premium - reinsurer's portion	102,563	74,692
Reserves for losses receivable	69,629	117,325
Retained funds	37,074	40,097
Total	**359,629**	**394,310**

Amounts stated in millions of Colombian pesos -

Note 17.

Inventories

Inventories at the end of the period were as follows:

Inventories	2023	2022
Materials for rendering of services [1]	693,828	647,275
Merchandise in stock [2]	53,125	59,165
Goods in transit	13,376	8,203
Total inventories	**760,329**	**714,643**

Amounts stated in millions of Colombian pesos -

[1]Includes materials for the rendering of services held by third parties, which are those delivered to contractors performing activities related to the rendering of services.

[2] Includes goods in stock that do not require transformation, such as energy, gas and water meters, and supply goods, as well as those held by third parties.

Inventories of $629,489 (2022: $295,338) were recognized as cost for the rendering of services or cost of goods sold during the period. The write-off of inventories recognized as an expense during the period amounted to $2,762 (2022: $895). The Group has not generated impairment losses when comparing the net realizable value with the average cost of inventories

As of December 31, 2023, the Group did not pledge inventories as guarantee for liabilities.

Note 18.

Cash and cash equivalents

The composition of cash and cash equivalents at the end of the period is as follows:

Cash and cash equivalents	2023	2022
Cash in hand and banks	2,216,853	3,016,337
Other cash equivalents [1]	1,086,965	1,111,407
Total cash and cash equivalents presented in the statement of financial position	**3,303,818**	**4,127,744**
Total cash and cash equivalents presented in the statement of cash flows	**3,303,818**	**4,127,744**
Restricted cash and cash equivalents [2]	**447,930**	**299,175**

- Amounts stated in millions of Colombian pesos -

[1] *Includes restricted funds $447,930 (2022: $299,174) and cash equivalents $639,034 (2022: $812,232).*

[2] *Of this $59,346 (2022: $89,065) corresponds to non-current restricted cash.*

Cash investments mature within three months or less from the date of acquisition and earn interest at market rates for this type of investment.

The Group has restrictions on cash and cash equivalents, detailed below: as of December 31, 2023, the fair value of restricted cash equivalents is $447,930 (2022: $299,174).

CARIBEMAR Fund or agreement	Destination	2023	2022
Fidudavivienda CA 482800013450 - Caribe Mar and Others	Infrastructure expansion	213,371	61,870
ECA Trusteeship - Prone Barrio SNB 9 D and Others	Electrical networks normalization program	12,495	14,230
Banco de Bogotá Accounts 097372106; 097372098 and Others	Housing loan account management	2,174	20,885
F_Corfi CA 477013965 - FAER GGC 562 and Others	Energization of interconnected rural areas	1,025	1,052
Total restricted resources CARIBBEAN		229,065	98,037

- Amount stated in millions of Colombian pesos -

EPM fund or agreement	Destination	2023	2022
Sintraemdes Housing Fund	Contribute to the acquisition of housing and its improvement for the employees who are beneficiaries of the conventional agreement signed between EPM and the unions.	34,199	30,641
Sinpro Housing Fund	Contribute to the acquisition of housing and its improvement for the employees who are beneficiaries of the conventional agreement signed between EPM and the unions.	31,889	31,456
Corpb prize income. 6972005469	Address possible contingencies after the acquisition of EPRIO by EPM	8,067	7,133
Ministry of Mines and Energy - Special Fund Promotion Fee	Co-financing agreement for the construction, distribution infrastructure and connection to lower-income users in the municipalities of Amagá, Santafé de Antioquia, Sopetrán, San Jerónimo and Ciudad Bolívar. Compressed Natural Gas and connection to users of Don Matías, Entrerríos, San Pedro, Santa Rosa and Yarumal. Agreement No 106: construction of the infrastructure connecting users in the Aburrá Valley, La Ceja, La Unión and El Retiro. Agreement 179: includes the municipality of Sonsón.	5,928	5,565
Agreement account	Inter-administrative agreement CT-2022-000918, indigenous schools Government	5,628	-
Agreements on public lighting and sanitation rates with municipalities	Agreement to manage the resources of territorial entities for payment to municipalities with collection agreements for public lighting and cleaning fees, are resources exempt from 4x1000.	5,570	544
Agreement account	Coverage contemplated in the 2020 - 2023 Development Plan of the Government of Antioquia, EPM and the Department, the connection of approximately 186 electrical installations will be carried out with alternative energy related to individual photovoltaic systems - SISFV, in different subregions of the Department of Antioquia, contributing to the increase in rural electrification coverage and improving the quality of life of the most vulnerable population.	5,330	-

EPM fund or agreement	Destination	2023	2022
Contract No. CT-2019-001105	Contract for the supply of energy and electrical 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.	3,373	3,058
Adapted Health Entity Fund and Fosyga Fund	Control and monitoring mechanism for the collection of contributions from the Contributory Regime of the General Health Social Security System.	2,899	4,318
Sinpro Education Fund	Promote the well-being of employees to meet the needs of paying tuition, texts and supplies that are required to carry out their own studies and those of the family group.	2,745	2,621
Sintraemdes Education Fund	Promote the well-being of employees to meet the needs of paying tuition, texts and supplies that are required to carry out their own studies and those of the family group.	2,557	2,063
SOMOS points agreement	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.	2,126	1,928
Sintraemdes Calamity Fund	Promote the well-being of your employees to meet their urgent and unforeseen needs or those of their primary family group.	1,893	1,683
Sinpro Calamity Fund	Promote the well-being of your employees to meet their urgent and unforeseen needs or those of their primary family group.	1,605	1,476
Agreement account	Seizure due to judicial processes	1,478	-
Judicial or administrative processes	Accounting for embargoes due to judicial or administrative processes	1,459	1,163
Agreement account	Implementation of solar photovoltaic systems through the network "united by rural schools"	1,396	-
Medellín Municipality Framework Agreement No. 4600049285	Construction by EPM of platforms and other road elements in the city center, taking advantage of the Centro Parrilla project, that is, the renewal of aqueduct and sewage networks.	653	592

EPM fund or agreement	Destination	2023	2022
Villages Program	Take advantage of the wood that completes its maturation cycle in the forests planted by EPM around its reservoirs, to build social housing in the municipalities of Antioquia outside the Aburrá Valley and deliver them to low-income families, preferably in displaced situations. forced or voluntary.	630	571
EAS Accounts Copays	Reception of resources corresponding to moderator fees and co-payments in the EAS	462	316
Motorcycle Repair Fund	Promote the well-being of official workers who work in the regional market and use motorcycles they own to carry out their work.	386	368
Payment of OC solidarity contributions	The purpose of the account is to receive the transfer of solidarity contributions paid by other marketers, as well as the resources paid by the Ministry of Mines and Energy for subsidies for lower rates applied to users of the strata 1 energy service, 2 and 3.	254	-
Administration of resources for the construction of infrastructure in Madera for Emvarias in the La Pradera landfill.	Administration of resources for the construction of infrastructure in Madera for Emvarias in the La Pradera landfill.	98	87
Deposits Law 820	Guarantee required by the landlord from the tenant for the payment of public services. According to Article 15 of Law 820 of 2003 and Regulatory Decree 3130 of 2003.	93	87
Municipality of Medellín - Land	Acquisition of properties identified and characterized within the protection zones of hydrographic basins supplying aqueduct systems in the municipality of Medellín.	79	70
Espiritu Santo	EPM - Espiritu Santo Liquidation	65	64
Municipality of Medellín - Aguas	Comprehensive management of water for human consumption of the inhabitants of the municipality of Medellín.	30	27

EPM fund or agreement	Destination	2023	2022
IDEA Agreement 4600003283	Join forces for the construction of home gas connections in the different subregions of the Department of Antioquia under the framework of the "Gas without Borders" program.	1	1
Agreement 5 Indigenous Studies 2019-20	Co-finance the development of indigenous educational centers within the framework of the villages program, to improve the quality of life of the indigenous communities of the department of Antioquia	-	112
Inter-administrative agreement CT -2017-001388 (460007009)	Agreement for the construction of 7 indigenous schools in 5 municipalities	-	26
Resources of the future Ituango hydroelectric plant	Reception of the resources paid by the insurers AXA, SBS and SURA and whose destination is exclusive for the Hidroituango Project.	-	122
GNB Antioquia Governorate	Cover the co-financing of up to 70% of the cost of home electrical installations for families in stratum 1 in the different subregions of the department of Antioquia.	-	1,449
Total EPM restricted resources		**120,893**	**97,541**

- Amount stated in millions of Colombian pesos -

Fund or agreement Various Companies	Destination	2023	2022
Order FID 919301039524 - Pradera and Others	Resources allocated for Pradera payments	33,321	23,007
FL GNB 90630045830	Agreement with the Municipality of Medellín for the acquisition of Containers	-	-
FL ITAU 859060217 Renting hour	Delegated administration agreement with the Municipality of Medellín, for the maintenance of green areas of the institutions of the Municipality and its 5 townships	-	442
FL BBVA 423 Pruning-Falling Agreement	Agreement with INDER for washing bridges and stadium roofs	32	32
Agreement 18-897796-47 EDU	Delegated administration agreement with the Municipality of Medellín for the service of cutting green areas and pruning and felling trees	29	26
FL West INDER	Delegated administration agreement with the Municipality of Medellín for the green zone cutting service	4	4
Total restricted resources Various Companies		**33,386**	**23,511**

- Amount stated in millions of Colombian pesos -

Fund or agreement Grupo Ticsa Mexico	Destination	2023	2022
Aquasol Morelia S.A. of C.V.	National Bank Trust for Works and Banco del Bajío Trust 15892649	14,195	7,979
Colima Ecosystems S.A. of C.V.	Banco del Bajío Trust 15892649	7,309	7,648
Tuxtla Ecosystems S.A. of C.V.	Banco del Bajío/Multiva Trust	6,502	14,087
Celaya Ecosystems S.A. of C.V.	Banco del Bajío Trust 15892649 and National Works Bank Trust	2,111	2,676
Ciudad Lerdo Ecosystems S.A. DE C.V. (Ecoler)	Banco del Bajío Trust	2	-
Intercontinental Technology S.A.P.I. DE C.V.	Extra 0511 Moflo	-	839
Total restricted resources Ticsa Mexico Group		**30,119**	**33,230**

- Amount stated in millions of Colombian pesos -

CENS fund or agreement	Destination	2023	2022
BBVA -Minminas 756 and Others	Carry out the execution of rural electrification works in the municipalities of the Norte de Santander department.	6,803	18,959
BBVA XM Custodial Account Bank Guarantees	Guarantee and Compliance Ties to cover energy purchase projects.	2,512	2,355
Housing Revolving Fund	Housing loans for employees of CENS S.A.	583	903
Government-Davivienda Agreement and Others	Carry out the execution of rural electrification works in different municipalities	340	459
Total CENS restricted resources		**10,238**	**22,676**

- Amount stated in millions of Colombian pesos -

National Waters Fund or agreement	Destination	2023	2022
FL ITAU 859085263 and FL ITAU	Audit Project	6,575	8,425
Current account Bancolombia 536423 and Others	Aguas de Atrato Project	982	799
Savings account ITAU 153148929 and FL GNB	Ministry Project	154	163
Total restricted resources National Waters		**7,711**	**9,387**

- Amount stated in millions of Colombian pesos -

EDEQ fund or agreement	Destination	2023	2022
FL Davivienda Housing Fund 136270148986 FL Fiducredicorp Housing Fund 919301005560	Resources intended to improve the quality of life of workers through the granting of credits for the purchase and improvement of housing.	4,481	3,355
FL Davivienda Collective Portfolio 608136200000618 FL Davivienda Social Good Fund - training 136270162219	Resources intended to provide workers and their families with access to higher education, health, well-being and recreation.	299	278
FL Davivienda Calamity Fund 136000742868	Resources intended for events caused by serious and unforeseen situations that affect the worker or his or her family.	3	6
FL Davivienda Motorcycle fund 136270167200	Resources intended to provide workers with loans to acquire and replace motorcycles used to carry out their work.	32	5
Total EDEQ restricted resources		**4,815**	**3,644**

- Amount stated in millions of Colombian pesos -

ESSA fund or agreement	Destination	2023	2022
BBVA guarantees 0408	XM Bank Account	4,323	6,021
Agreement Resources public hearings	Agreement signed with the Mayor's Office of Bucaramanga	1	1
Total ESSA restricted resources		**4,324**	**6,022**

- Amount stated in millions of Colombian pesos -

CHEC fund or agreement	Destination	2023	2022
XM management custody account	Attention to guarantees for operations of energy transactions on the stock market managed and controlled by XM.	2,194	808
CONFA special fund	Attention to social and cultural outreach programs for CHEC employees (delegated administration contract with CONFA).	400	223
Special Fund CORPOCALDAS Agreement, Government of Caldas	FL Davivienda 941 Interadministrative Agreement	137	137
Special property fund	Administration of forest conservation properties in the company's watersheds (delegated administration contract)	100	115
Special background advertising guidelines	Attention to advertising guidelines through contracts with advertising agencies, CJ Martins, Rowell digital agency and Macann	80	80
Special housing fund	Attention of housing loans to CHEC employees, according to the procedure and conditions established in the Current Collective Labor Convention - CCTV	68	59
Conservation	Fund created for a specific destination for Corpocaldas and the Government of Caldas to consign the contributions of the agreement SG 114.21	40	40
Special Fund Social Financing Plan - PFS	Attention to microcredits made to users of the company's market, with collection through the energy bill.	11	11
MinCiencias Fund	Fund created to manage the agreement between MinCiencias and CHEC	-	17
Total CHEC restricted resources		**3,030**	**1,490**

- Amount stated in millions of Colombian pesos -

HIDROE fund or agreement	Destination	2023	2022
Etesa contract	Guarantee deposit Non-Regulated Market Contract - MNR or Large Clients	1,269	-
Etesa contract	CDT protects Energy Contract with regulatory entities (ETESA)	301	-
Administration Contracts (Employee Compensation) and Services Contracts	Guarantee Deposits for services and Severance Fund	56	1,080
Total HIDROE restricted resources		**1,626**	**1,080**

- Amount stated in millions of Colombian pesos -

Regional Water Fund or agreement	Destination	2023	2022
POIR provision	Provision of resources for differences between planned and executed investments in the POIR at the year 6 tariff closing.	1,237	1,063
Carepa Agreement	Replacement of sewer networks	267	-
Sintraemsdes Housing Fund Agreement	Housing loans to officials who meet the requirements.	72	57
Total restricted resources Regional Waters		**1,576**	**1,120**

- Amount stated in millions of Colombian pesos -

Fund or agreement ELEKTRA NORESTE S.A.	Destination	2023	2022
The Toscana	Withholding of Civil case in process.	1,117	1,406
Aguaseo	Colón Municipality Retention.	30	29
Total restricted resources ELEKTRA NORESTE S.A.		**1,147**	**1,435**

- Amount stated in millions of Colombian pesos -

Note 19.

Equity

19.1. Capital

Group's capital is not divided into shares.

Issued Capital	2023	2022
Initial balance	67	67
Total	**67**	**67**

- Amount stated in millions of Colombian pesos -

19.2. Reserves

Of the accounts comprising equity, reserves at the balance sheet date consisted of:

Reserves	2023	2022
Legal reserves (1)		
Initial Balance	1,406,770	1,467,230
Constitution	55,933	37,219
Release	(390,022)	(95,870)
Other movements	-	(1,809)
Final balance, legal reserves	**1,072,681**	**1,406,770**
Statutory reserves		
Initial Balance	27,251	29,862
Constitution	648	553
Release	(6,576)	(3,164)
Final, balance Statutory reserves	**21,323**	**27,251**
Occasional reserves		
Initial Balance	578,092	576,452
Constitution	6,302	-
Other movements	-	1,640
Final balance, occasional reserves	**584,394**	**578,092**

Other reserves		
Initial Balance	506,001	342,753
Constitution	159,249	163,078
Release	(2,581)	-
Other movements	-	170
Final balance, other reserves	**662,669**	**506,001**
Total reserves	**2,341,067**	**2,518,114**

- Amount stated in millions of Colombian pesos -

The nature and purpose of the Group's equity reserves are described below:

- Legal reserves: in compliance with the Colombian tax provisions contained in Article 130 of the Tax Statute, repealed by Article 376 of Law 1819 of 2016 and in Decree 2336 of 1995, the companies of the EPM Group operating in Colombia duly constituted the legal reserves. The reserves constituted for excesses in depreciation quotas referred to in Article 130 of the tax statute may be released at the time when the depreciation requested for tax purposes is lower than that recorded in the income statement.

- For subsidiaries in El Salvador, legal reserves are established in accordance with the current Commercial Code, companies must annually set aside 7 % of net profits to constitute their legal reserve, and the minimum limit established is one fifth of their capital stock. If for any reason the legal reserve is reduced, it must be restored in the same manner. Additionally, in accordance with the Income Tax Law, when the legal reserve is reduced for any reason, such as capitalization, application of losses from previous years 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 year in which it was reduced, and it will be settled separately from ordinary income. For such purposes, the corporation shall 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 taxable year or period.

- 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 the 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 prejudice to continuing to be reserving the aforementioned 5 %.

- For subsidiaries in Mexico, according to the General Law of Commercial Companies, at least 5 % of net profits for the year must be set aside to form the legal reserve, until its amount reaches 20 % of capital stock at par value. The legal reserve may be capitalized but must not be distributed unless the company is dissolved and must be reconstituted when it is reduced for any reason. Retained earnings include the legal reserve.

For subsidiaries in other countries in which EPM Group operates, there is no legal reserve established by law.

[1] *In EPM, the Board of Directors in its meetings of March 23, 2023 and March 23, 2022, approved:*

- *Release reserves of $389,261 (2022: $93,086) appropriated in prior periods as authorized by the Board of Directors.*
- *Occasional reserves: in compliance with article 211 of the Tax Statute, the companies of the EPM Group operating in Colombia have created the required reserves to enjoy the special tax treatment and obtain a rationalization in the payment of income tax and complementary taxes.*
- *Other reserves: include statutory reserves, reserves for repurchase of shares and quota shares, equity funds and others, which as of December 31 record the net balance corresponding to releases made by the subsidiaries in those reserves that have already met the requirements to be released*

19.3. Retained earnings

The changes in retained earnings during the period were as follows:

Retained earnings	2023	2022
Initial balance	23,057,789	21,165,517
Movement of reserves	177,047	(101,816)
Surpluses or dividends decreed	(1,748,005)	(1,850,775)
Transfer of the other comprehensive income	-	149
Purchases and sales to non-controlling interests	12	(30)
Other movements of the period	(149)	(714)
Total retained earnings before net profit or loss for the year	**21,486,694**	**19,212,331**
Net profit or loss for the period controlling interest	**3,249,354**	**3,845,458**
Total retained earnings	**24,736,048**	**23,057,789**

- Amount stated in millions of Colombian pesos -

Surpluses paid during the year were $1,748,005 (2022: $1,850,775), $910,787 (2022: 1,009,514) ordinary, and y 837,218 (2022: $841,261) extraordinary.

19.4. Other components of equity

It includes mainly the equity effects of changes in subsidiaries' holdings and payments based on shares of associates.

19.5. Non-controlling interests

The changes in non-controlling interests as of the balance sheet date are as follows:

Non-controlling interests	2023	2022
Initial balance	1,566,502	1,295,378
Surpluses or dividends declared	(201,781)	(195,339)
Share in net profit or los for the year	312,592	280,043
Share in other comprehensive income	(5,488)	(3,800)
Purchases and sales to non-controlling interests	(34)	30
Another movement of the period	(238,211)	190,190
Total	**1,433,580**	**1,566,502**

- Amount stated in millions of Colombian pesos -

Note 20.

Accumulated other comprehensive income

The detail of each component of other comprehensive income in the consolidated statement of financial position and the related tax effect is as follows:

Accumulated other comprehensive income	2023			2022		
	Gross	Tax effect	Net	Gross	Tax effect	Net
Reclassification of property, plant, and equipment to investment property	13,439	(1,107)	12,332	13,439	(1,107)	12,332
Re-measurement of defined benefit plans	(103,206)	33,314	(69,892)	96,942	(32,408)	64,534
Equity investments measured at fair value through equity	2,399,948	(199,716)	2,200,232	2,939,381	(309,124)	2,630,257

Share in other comprehensive income of associates and joint ventures	184,696	-	184,696	17,422	-	17,422
Cash flow hedges	(681,565)	229,617	(451,948)	(1,128,472)	478,445	(650,027)
Hedges of net investments in foreign operations	6,098	(2,064)	4,034	(277,654)	-	(277,654)
Translation of financial statements of foreign operations	841,492	-	841,492	1,969,017	-	1,969,017
Total	**2,660,902**	**60,044**	**2,720,946**	**3,630,075**	**135,806**	**3,765,881**

- Amount stated in millions of Colombian pesos -

During the period EPM Parent Company reclassified net loss for $2,543,485 (2022: -$925,269) previously recognized in the other comprehensive income to the results of the period, for cash flow hedging.

A reconciliation of the opening and closing balances at the balance sheet date is presented below for each component of comprehensive income

20.1 Component: reclassification of property, plant, and equipment to investment properties

The reclassification of property, plant, and equipment to investment property component 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 are not reclassified to profit or loss.

Reclassification of property, plant, and equipment to investment property	2023	2022
Initial balance	12,332	12,471
Net results from changes in fair value of investment properties	-	(139)
Total	**12,332**	**12,332**

- Amount stated in millions of Colombian pesos -

20.2 Component: new defined benefit plan measures

The remeasurement component of defined benefit plans represents the cumulative value of actuarial gains 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 net defined benefit liability (asset). The net value of remeasurements is transferred to retained earnings and is not reclassified to profit or loss for the period.

Component new defined benefit plan measures	2023	2022
Initial balance	64,534	(8,724)
Result for the period from remeasurement of defined benefit plans	(200,148)	116,594
Associated income tax (or equivalent)	65,722	(43,336)
Total	**(69,892)**	**64,534**

- Amount stated in millions of Colombian pesos -

20.3 Component: equity investments measured at fair value through equity

The component of other comprehensive income of equity investments measured at fair value through equity represents the cumulative gain or loss from fair value less amounts transferred to retained earnings when these investments have been sold. Changes in fair value are not reclassified to profit or loss for the period.

Equity investments measured at fair value through equity	2023	2022
Initial balance	2,630,257	3,064,037
Net result from changes in fair value of equity investments	(539,446)	(131,034)
Associated income tax (or equivalent)	109,406	(302,735)

Tax transferred to retained earnings	-	(11)
Other changes	15	-
Total	**2,200,232**	**2,630,257**

- Amount stated in millions of Colombian pesos -

20.4 Component: share in other comprehensive income of associates and joint ventures

The component of other comprehensive income of share in other comprehensive income of associates and joint ventures represents the cumulative value of the application of the equity method to the gains and losses of other comprehensive income of associates and joint ventures. The cumulative value of the gains or losses will be reclassified to profit or loss for the period or to retained earnings, depending on the items that originated the equity method, when these investments have been sold

Share in other comprehensive income of associates and joint ventures	2023	2022
Initial balance	17,422	16,788
New defined benefit plan measures	(105,778)	(2,714)
Assets held for sale	283,751	-
Result from translation of foreign operations	(2,047)	1,713
Hedging operations	(8,652)	1,635
Total	**184,696**	**17,422**

- Amount stated in millions of Colombian pesos -

20.5 Component: cash flow hedges

The component of other comprehensive income of cash flow hedges represents the cumulative amount of the effective portion of gains or losses arising from changes in the fair value of hedged items in a cash flow hedge. The cumulative gain or loss is reclassified to profit or loss for the period only when the hedged transaction affects profit or loss for the period or the highly probable transaction is not expected to occur, or is included, as part of its carrying amount, in a non-financial hedged item.

Cash flow hedges	2023	2022
Initial balance	(650,027)	(342,590)
Net result from changes in fair value of hedging instruments	(2,096,579)	329,799
Income tax (or equivalent) from changes in the fair value of hedging instruments	467,517	(166,033)
Cumulative gain or loss from changes in fair value of hedging instruments reclassified to profit or loss for the period	2,543,485	(925,269)
Income tax (or equivalent) on fair value of hedging instruments reclassified to profit or loss for the period	(621,080)	379,908
Income tax (or equivalent) associated with hedges of net investments in foreign operations	(95,264)	74,158
Total	**(451,948)**	**(650,027)**

- Amount stated in millions of Colombian pesos -

20.6 Component: hedges of net investments in foreign businesseso

The component of other comprehensive income of hedges of net investments in foreign operations represents the cumulative value of the effective portion of gains or losses arising from changes in the value of the hedging instrument. The cumulative gain or loss is reclassified to profit or loss for the period only when the total or partial disposal of the hedged foreign investment affects profit or loss for the period.

Hedges of net investments in foreign businesses	2023	2022
Initial balance	(277,654)	(61,509)
Net result from changes in the value of the hedging instrument	186,424	(216,145)
Imcome tax (o equivalent) associated	95,264	-
Total	**4,034**	**(277,654)**

- Amount stated in millions of Colombian pesos -

Income tax associated with hedges of net investments in foreign businesses for the year ended December 31, 2023 amounted to $95,264 (2022: $74,158).

20.7 Component: Gains or losses from foreign business conversion

The translation differences component represents the cumulative value of exchange differences arising from the translation to the Group's presentation currency of the results and net assets of foreign operations, as well as gains or losses on hedging instruments that are designated as hedges of a net investment in a foreign operation. Cumulative translation differences are reclassified to profit or loss for the period, partially or in full, when the foreign operation is disposed of.

Result from translation of foreign operations	2023	2022
Initial balance	1,969,017	1,117,985
Net exchange differences from translation of foreign operations	(1,127,525)	851,032
Total	**841,492**	**1,969,017**

- Amount stated in millions of Colombian pesos -

Note 21.

Loans and borrowings

The carrying amounts of loans and borrowings measured at amortized cost are as follows:

Loans and borrowings	2023	2022
Non-current		
Commercial bank loans	7,463,082	6,889,641
Development bank loans	12,992,029	16,233,690
Bonds and securities issued	651,359	761,044
Multilateral banking loans	2,023,224	2,011,816
Total other non-current loans and borrowings	**23,129,694**	**25,896,191**
Current		
Commercial bank loans	2,881,436	2,163,651
Multilateral banking loans	125,588	402,199
Bonds and securities issued	1,501,357	632,932
Development bank loans	238,865	280,295
Other loans	-	115,001
Total other current loans and borrowings	**4,747,246**	**3,594,078**
Total other loans and borrowings	**27,876,940**	**29,490,269**

- Amount stated in millions of Colombian pesos -

In 2023, a credit agreement was signed with the French Development Agency - AFD for an amount of USD 189.81 million, equivalent to $839,960 for a term of 10 years and intended for the partial financing of the investment plan.

The new credits and loans disbursed in 2023 of the EPM Group were acquired in order to finance investment plans and working capital.

The detail of loans and borrowings by entity is as follows:

Company	Entity or loan	Original Currency	Initial date	Term	Nominal interest rate	December 31, 2023				December 31, 2022			
						IRR	Nominal value	Amortized cost value	Total Value	IRR	Nominal value	Amortized cost value	Total Value
AFINIA	POPULAR	COP	2022/09/29	1.00	IBR + 5.3%	0.00%	-	-	-	16.41%	80,000	3,382	83,382
AFINIA	DAVIVIENDA	COP	2023/01/26	1.00	IBR + 9.5%	21.93%	15,000	592	15,592	21.19%	40,000	377	40,377
AFINIA	DAVIVIENDA	COP	2023/01/27	1.00	IBR + 9.5%	21.92%	10,000	388	10,388	0.00%	-	-	-
AGUAS DE ANTOFAGASTA	BANCO BICE BCI	CLP	2018/01/1	-	-	4.54%	-	-	-	1.51%	2	-	2
AGUAS DE ANTOFAGASTA	BANCO DEL ESTADO	CLP	2015/01/14	10.00	UF + 2.9%	1.51%	46,262	613	46,875	1.51%	94,781	1,208	95,989
AGUAS DE ANTOFAGASTA	BONOS	CLP	2020/12/18	5.00	UF + 0.995%	0.20%	105,971	2,478	108,448	0.20%	198,240	6,409	204,649
AGUAS DE ANTOFAGASTA	BONOS	CLP	2020/12/18	13.00	UF + 1.439%	2.01%	317,912	23,315	341,227	2.01%	396,481	32,063	428,544
AGUAS DE ANTOFAGASTA	BONOS	CLP	2021/05/14	4.50	UF + 0.995%	0.63%	105,971	2,130	108,101	0.63%	198,240	5,323	203,563
AGUAS DE ANTOFAGASTA	BONOS	CLP	2021/05/14	12.50	UF + 1.439%	2.51%	476,868	18,963	495,831	2.51%	594,721	25,551	620,272
AGUAS DE ANTOFAGASTA	SCOTIABANK	CLP	2022/09/28	5.00	UF + 1.55%	0.02%	447,875	6,670	454,546	0.02%	558,563	24	558,588
AGUAS DE ANTOFAGASTA	BANCO DEL ESTADO	CLP	2022/11/8	6.00	UF + 0.7%	0.28%	302,016	717	302,733	0.28%	376,657	(1,924)	374,733
AGUAS REGIONALES	BANCO POPULAR	COP	2018/06/1	7.25	IBR 3M + 3%	14.94%	3,652	70	3,722	14.09%	5,738	152	5,890
AGUAS REGIONALES	BANCO DE BOGOTA	COP	2015/09/30	10.08	DTF + 2.6%	15.14%	170	5	175	15.70%	255	9	264
AGUAS REGIONALES	HELM BANK S.A.	COP	2012/03/16	12.00	DTF + 1%	11.63%	206	1	207	10.77%	1,031	15	1,045
AGUAS REGIONALES	BANCO BILBAO VIZCAYA ARGENTARIA	COP	2014/04/30	10.06	DTF + 0.7%	11.58%	63	1	63	11.51%	188	4	191
AGUAS REGIONALES	BANCO BILBAO VIZCAYA ARGENTARIA	COP	2014/12/19	10.00	DTF + 0.7%	10.94%	172	1	173	11.42%	344	5	350
AGUAS REGIONALES	BANCO DAVIVIENDA SA	COP	2018/02/19	10.25	IPC + 4.8%	14.79%	11,250	316	11,566	16.94%	13,750	504	14,254
AGUAS REGIONALES	BANCO POPULAR	COP	2020/01/21	10.25	IBR 3M + 2.9%	14.98%	4,875	225	5,100	14.53%	5,625	266	5,891
AGUAS REGIONALES	BANCO POPULAR	COP	2020/03/18	10.25	IBR 3M + 2.9%	14.97%	2,031	46	2,077	14.55%	2,344	60	2,404
AGUAS REGIONALES	BANCO POPULAR	COP	2020/04/22	10.25	IBR 3M + 2.9%	14.93%	1,603	76	1,679	14.47%	1,841	90	1,930
AGUAS REGIONALES	BANCO POPULAR	COP	2020/05/22	10.00	IBR 3M + 2.9%	15.22%	934	26	960	14.82%	1,078	31	1,109
AGUAS REGIONALES	BANCO POPULAR	COP	2020/06/19	10.00	IBR 3M + 2.9%	15.26%	1,097	17	1,114	14.90%	1,266	21	1,287
AGUAS REGIONALES	BANCO POPULAR	COP	2020/07/21	10.00	IBR 3M + 2.9%	14.99%	1,772	72	1,844	14.59%	2,034	83	2,117
AGUAS REGIONALES	BANCO POPULAR	COP	2020/08/19	10.00	IBR 3M + 2.9%	15.21%	1,730	51	1,781	14.80%	1,986	60	2,046
AGUAS REGIONALES	BANCO POPULAR	COP	2020/09/23	10.00	IBR 3M + 2.9%	15.26%	2,363	34	2,396	14.90%	2,713	42	2,755
AGUAS REGIONALES	BANCO POPULAR	COP	2020/10/26	10.00	IBR 3M + 2.9%	15.21%	11,944	473	12,417	14.80%	13,650	542	14,192
AGUAS REGIONALES	FINDETER	COP	2020/12/21	3.00	0%	0.00%	-	-	-	0.00%	914	-	914
AGUAS REGIONALES	BANCO DAVIVIENDA SA	COP	2021/11/30	10.00	IBR 3M + 2.869%	15.23%	9,500	237	9,737	14.90%	9,500	238	9,738
AGUAS REGIONALES	BANCO DE OCCIDENTE S.A.	COP	2022/12/1	10.00	IBR 3M + 4.75%	17.77%	22,000	342	22,342	17.43%	22,000	297	22,297
AGUAS REGIONALES	BANCO BILBAO VIZCAYA ARGENTARIA	COP	2023/03/21	1.00	18.84%	18.84%	5,000	262	5,262	0.00%	-	-	-
AGUAS REGIONALES	BANCO DAVIVIENDA SA	COP	2023/07/19	10.00	IBR 6M + 4.75%	12.58%	20,000	1,060	21,060	0.00%	-	-	-
CENS	BBVA	COP	2021/05/27	2.00	IBR + 0.15%	0.00%	-	-	-	9.94%	3,110	18	3,128
CENS	BOGOTÁ	COP	2018/02/16	10.00	IBR + 2.98%	14.11%	60,302	4,215	64,517	14.43%	77,531	4,832	82,362
CENS	POPULAR	COP	2017/05/15	10.00	IBR + 3.35%	14.37%	16,293	619	16,912	14.56%	20,948	859	21,807
CENS	POPULAR	COP	2017/05/26	10.00	IBR + 3.35%	14.34%	3,736	127	3,863	14.57%	4,804	180	4,984
CENS	POPULAR	COP	2017/06/23	10.00	IBR + 3.35%	14.23%	2,846	68	2,914	14.56%	3,659	104	3,763
CENS	POPULAR	COP	2017/06/29	10.00	IBR + 3.35%	14.27%	4,443	93	4,537	14.61%	5,714	146	5,860
CENS	POPULAR	COP	2017/07/18	10.00	IBR + 3.35%	14.38%	7,476	650	8,126	14.68%	9,344	738	10,082
CENS	POPULAR	COP	2017/07/27	10.00	IBR + 3.35%	14.38%	3,250	270	3,520	14.69%	4,063	307	4,370
CENS	POPULAR	COP	2017/08/23	10.00	IBR + 3.35%	14.70%	3,000	202	3,202	14.99%	3,750	230	3,980
CENS	POPULAR	COP	2017/09/15	12.00	IBR + 3.35%	14.90%	3,221	181	3,402	15.16%	4,026	215	4,241
CENS	POPULAR	COP	2017/09/19	10.00	IBR + 1.8%	7.73%	3,554	313	3,867	8.04%	4,146	373	4,519
CENS	POPULAR	COP	2017/09/19	10.00	IBR + 3.075%	14.17%	5,923	358	6,281	14.47%	7,404	430	7,834
CENS	POPULAR	COP	2017/11/17	12.00	IBR + 3.35%	14.37%	4,830	188	5,018	14.62%	6,037	250	6,287
CENS	POPULAR	COP	2017/11/17	10.00	IBR +1.8%	8.09%	2,446	199	2,645	7.38%	2,854	226	3,080
CENS	POPULAR	COP	2017/11/17	10.00	IBR + 3.075%	13.84%	4,077	174	4,251	14.08%	5,096	234	5,330
CENS	POPULAR	COP	2017/12/18	10.00	IBR + 3.35%	14.29%	10,000	277	10,277	14.55%	12,500	390	12,890
CENS	POPULAR	COP	2018/01/18	9.00	IBR + 3.35%	14.42%	20,813	1,835	22,648	14.73%	25,438	2,032	27,469
CENS	DAVIVIENDA	COP	2019/06/14	12.00	IBR + 1.15%	12.13%	15,000	894	15,894	11.37%	17,000	980	17,980

Company	Entity or loan	Original Currency	Initial date	Term	Nominal interest rate	December 31, 2023				December 31, 2022			
						IRR	Nominal value	Amortized cost value	Total Value	IRR	Nominal value	Amortized cost value	Total Value
CENS	DAVIVIENDA	COP	2019/06/27	12.00	IBR + 1.15%	12.12%	4,284	234	4,518	11.39%	4,856	262	5,119
CENS	OCCIDENTE	COP	2019/12/16	7.00	IBR S.V. + 2.75%	13.22%	21,000	627	21,627	13.38%	28,000	1,036	29,036
CENS	OCCIDENTE	COP	2020/01/16	7.00	IBR S.V. + 2.75%	13.15%	14,000	1,269	15,269	13.79%	18,000	1,432	19,432
CENS	BBVA	COP	2020/07/28	7.00	IBR S.V. + 2.9%	13.94%	4,000	320	4,320	14.15%	5,000	372	5,372
CENS	BBVA	COP	2020/09/28	7.00	IBR S.V. + 2.9%	14.37%	10,000	508	10,508	14.53%	12,500	635	13,135
CENS	DAVIVIENDA	COP	2020/11/30	3.00	IBR + 2.55%	12.18%	-	-	-	12.21%	7,500	178	7,678
CENS	FINDETER	COP	2020/12/24	3.00	0%	0.00%	-	-	-	0.00%	5,708	(0)	5,708
CENS	BBVA	COP	2021/01/21	7.00	IBR S.V. + 2.9%	14.07%	15,750	1,303	17,053	14.31%	17,500	1,375	18,875
CENS	BBVA	COP	2021/04/30	3.00	IBR + 0.15%	12.03%	1,653	3	1,656	10.75%	6,610	53	6,663
CENS	BBVA	COP	2022/02/22	7.00	IBR S.V. + 2.9%	14.58%	19,000	1,222	20,222	14.86%	19,000	1,126	20,126
CENS	DAVIVIENDA	COP	2022/03/11	10.00	IBR S.V. + 3.843%	15.87%	30,000	1,677	31,677	16.10%	30,000	1,594	31,594
CENS	BBVA	COP	2022/11/24	10.00	IBR S.V. + 2.79%	15.09%	40,000	514	40,514	15.31%	40,000	580	40,580
CENS	BBVA	COP	2022/12/20	10.00	IBR S.V. + 2.79%	15.04%	40,000	114	40,114	15.32%	40,000	172	40,172
CENS	BBVA	COP	2023/01/24	10.00	IBR S.V. + 2.79%	15.04%	44,000	2,778	46,778	0.00%	-	-	-
CENS	OCCIDENTE	COP	2023/07/14	10.00	IBR S.V. + 5%	17.39%	10,000	790	10,790	0.00%	-	-	-
CENS	OCCIDENTE	COP	2023/08/16	10.00	IBR S.V. + 5%	17.38%	14,666	925	15,591	0.00%	-	-	-
CENS	DAVIVIENDA	COP	2023/08/29	10.00	IBR S.V. + 5%	17.37%	20,000	1,137	21,137	0.00%	-	-	-
CENS	DAVIVIENDA	COP	2023/09/22	10.00	IBR M.V. + 2.3%	15.36%	35,202	112	35,314	0.00%	-	-	-
CENS	DAVIVIENDA	COP	2023/10/17	10.00	IBR S.V. + 5%	17.44%	54,798	1,858	56,656	0.00%	-	-	-
CENS	POPULAR	COP	2023/11/15	10.00	IBR S.V. + 5%	17.42%	24,667	506	25,173	0.00%	-	-	-
CENS	BOGOTA	COP	2023/11/20	10.00	IBR S.V. + 5%	17.42%	24,667	450	25,117	0.00%	-	-	-
CENS	ITAU	COP	2023/12/27	1.00	IBR S.V. + 3.87%	16.12%	20,000	26	20,026	0.00%	-	-	-
CHEC	CORPBANCA	COP	2014/08/22	10.00	IPC E.A. + 3.5%	0.00%	-	-	-	14.68%	11,156	321	11,477
CHEC	DAVIVIENDA	COP	2018/12/27	12.00	IBR 1M + 0.388%	0.00%	-	-	-	11.88%	3,692	21	3,713
CHEC	BANCO DE OCCIDENTE	COP	2022/05/25	1.00	IBRSV + 1.5%	0.00%	-	-	-	15.73%	10,000	67	10,067
CHEC	DAVIVIENDA	COP	2021/04/9	2.00	IBR 1M + 0.5%	0.00%	-	-	-	9.58%	914	9	924
CHEC	BBVA	COP	2014/08/22	10.00	IPC E.A. + 3.5%	13.11%	6,281	113	6,394	14.70%	14,656	419	15,075
CHEC	DAVIVIENDA	COP	2018/12/27	12.00	IBR 1M + 0.388%	12.95%	30,100	290	30,390	11.87%	34,400	285	34,685
CHEC	BANCOLOMBIA	COP	2018/02/9	8.00	IBR + 2.29%	14.23%	18,281	797	19,078	13.91%	26,406	1,102	27,508
CHEC	CORPBANCA	COP	2014/08/22	10.00	IPC E.A. + 3.5%	13.09%	4,781	86	4,867	0.00%	-	-	-
CHEC	DAVIVIENDA	COP	2018/12/27	12.00	IBR 1M + 0.388%	12.74%	3,244	22	3,266	0.00%	-	-	-
CHEC	DAVIVIENDA	COP	2019/11/20	12.00	IBR 1M + 0.388%	12.79%	1,436	15	1,451	11.93%	1,617	15	1,632
CHEC	BBVA	COP	2020/12/29	10.00	IBR + 3.432%	15.89%	26,250	429	26,679	15.59%	30,000	489	30,489
CHEC	FINDETER	COP	2020/12/30	3.00	0%	0.00%	-	-	-	0.00%	1,325	(0)	1,325
CHEC	BANCOLOMBIA	COP	2021/03/15	10.00	IBR + 1.8%	14.05%	48,031	820	48,851	13.64%	53,000	1,026	54,026
CHEC	DAVIVIENDA	COP	2021/04/7	3.00	IBR 1M + 0.5%	12.39%	221	2	223	10.81%	885	14	898
CHEC	DAVIVIENDA	COP	2021/04/20	10.00	IBR 1M + 1.693%	14.30%	3,638	32	3,670	13.28%	3,969	47	4,016
CHEC	BANCOLOMBIA	COP	2021/05/12	10.00	IBR + 1.8%	14.05%	81,563	2,451	84,014	13.63%	87,000	2,676	89,676
CHEC	BBVA	COP	2022/05/25	10.00	IBR + 3.533%	16.37%	15,000	361	15,361	16.03%	15,000	342	15,342
CHEC	BOGOTA	COP	2022/08/24	10.00	IBR + 4.41%	17.34%	17,000	319	17,319	16.92%	17,000	323	17,323
CHEC	BBVA	COP	2023/04/14	1.00	0%	15.05%	25,000	775	25,775	0.00%	-	-	-
CHEC	DAVIVIENDA	COP	2023/08/17	10.00	IBR S.V. + 4.88%	17.90%	100,000	6,441	106,441	0.00%	-	-	-
CHEC	INFICALDAAS	COP	2023/12/19	10.00	IBR 1M + 3.3%	16.53%	13,000	66	13,066	0.00%	-	-	-
CHEC	INFICALDAAS	COP	2023/12/20	10.00	IBR 1M + 3.3%	16.53%	9,000	42	9,042	0.00%	-	-	-
CHEC	ITAU	COP	2023/12/12	1.00	IBR S.V. + 3.87%	16.82%	30,000	254	30,254	0.00%	-	-	-
DEL SUR	DAVIVIENDA	USD	2013/08/26	10.00	LIBOR 3M + 3.7%	0.00%	-	-	-	4.07%	33,070	275	33,345
DEL SUR	DAVIVIENDA	USD	2015/10/7	10.00	SOFR 3M + 4.5%	0.00%	22,932	501	23,433	4.59%	36,077	639	36,716
DEL SUR	DAVIVIENDA	USD	2021/10/29	9.00	SOFR 3M + 4%	0.00%	114,662	1,831	116,493	4.15%	144,306	2,051	146,357
DEL SUR	CUSCATLAN	USD	2023/09/28	10.00	SOFR 3M + 3.75%	0.00%	55,897	(82)	55,816	0.00%	-	-	-

Company	Entity or loan	Original Currency	Initial date	Term	Nominal interest rate	December 31, 2023				December 31, 2022			
						IRR	Nominal value	Amortized cost value	Total Value	IRR	Nominal value	Amortized cost value	Total Value
EDEQ	AV VILLAS	COP	2016/06/23	7.00	IBR + 3.1%	0.00%	-	-	-	12.47%	299	4	303
EDEQ	BBVA_2073	COP	2021/05/10	2.00	IBR 1M + 0.15%	0.00%	-	-	-	9.31%	494	5	499
EDEQ	AV VILLAS	COP	2022/01/13	1.00	IBR + 1.5%	0.00%	-	-	-	12.19%	15,000	381	15,381
EDEQ	AV VILLAS	COP	2017/09/15	7.00	IBR + 3.1%	14.64%	900	10	910	14.25%	2,100	34	2,134
EDEQ	OCCIDENTE	COP	2019/11/29	7.00	IBR + 2.75%	14.59%	6,000	166	6,166	14.34%	8,000	217	8,217
EDEQ	AV VILLAS	COP	2019/11/5	6.50	IBR + 2.3%	14.05%	4,583	148	4,731	13.68%	6,417	211	6,628
EDEQ	BANCO DE BOGOTA	COP	2020/05/29	7.00	IBR + 2.18%	14.01%	6,998	169	7,166	13.58%	8,998	229	9,226
EDEQ	BANCO DE BOGOTA	COP	2020/08/19	7.00	IBR + 2.18%	14.02%	7,500	222	7,722	13.65%	9,500	282	9,782
EDEQ	FINDETER	COP	2021/01/19	3.00	0%	0.00%	7	(0)	7	0.00%	658	(0)	658
EDEQ	BBVA_844	COP	2021/05/10	3.00	IBR 1M + 0.15%	11.69%	128	1	129	10.50%	435	6	441
EDEQ	VILLAS_21454	COP	2021/07/23	7.00	IBR + 2.25%	14.28%	20,381	809	21,190	13.93%	21,454	853	22,307
EDEQ	BBVA_10000	COP	2022/05/27	5.00	IBR + 2.91%	15.22%	8,750	184	8,934	14.87%	10,000	207	10,207
EDEQ	BBVA_15000	COP	2022/06/24	5.00	IBR + 2.91%	15.36%	13,125	106	13,231	14.98%	15,000	138	15,138
EDEQ	POPULAR_11296	COP	2022/11/10	5.00	IBR + 3.9%	16.79%	11,297	264	11,561	16.37%	11,297	239	11,536
EDEQ	VILLAS_15000	COP	2023/01/13	5.00	IBR + 2.15%	14.96%	15,000	451	15,451	0.00%			
EDEQ	OCCIDENTE_21500	COP	2023/03/15	10.00	IBR + 6.65%	19.96%	21,500	173	21,673	0.00%	-	-	-
EDEQ	DAVIVIENDA_30000	COP	2023/10/30	10.00	IBR + 5%	18.10%	30,000	864	30,864	0.00%	-	-	-
EDEQ	OCCIDENTE_36240	COP	2023/12/27	10.00	IBR + 5.5%	18.65%	36,240	68	36,308	0.00%	-	-	-
EMVARIAS	FINDETER	COP	2021/01/27	3.00	0%	0.00%	164	-	164	0.00%	2,132	-	2,132
ENSA	CITIBANK	USD	2022/12/7	1.00	0%	0.00%		-	-	1.01%	38,482	164	38,645
ENSA	BONOS	USD	2012/12/13	15.00	4.75%	3.46%	305,764	(1,126)	304,638	3.46%	384,816	(1,926)	382,890
ENSA	SCOTIABANK	USD	2018/10/3	5.00	4.25%	4.25%		-	-	4.25%	481,020	1,389	482,409
ENSA	BONOS	USD	2021/07/1	15.00	3.87%	4.05%	382,205	1,758	383,963	4.05%	481,020	1,826	482,846
ENSA	SCOTIABANK	USD	2023/08/2	2.00	6.41048%	6.41%	95,551	(543)	95,008	2.00%	24,051	446	24,497
ENSA	SCOTIABANK	USD	2023/10/3	2.00	6.43415%	6.43%	95,551	335	95,887	2.00%	288,612	497	289,109
ENSA	SCOTIABANK	USD	2023/08/2	1.00	6.36048%	6.36%	191,103	12	191,115	3.80%	72,153	236	72,389
ENSA	SCOTIABANK	USD	2023/10/3	1.00	6.57751%	6.58%	286,654	1,238	287,892	5.39%	72,153	332	72,485
ENSA	BANESCO	USD	2023/10/20	1.00	4.8%	4.80%	57,331	248	57,579	0.00%	-	-	-
ENSA	SCOTIABANK	USD	2023/10/3	1.00	6%	6.00%	57,331	258	57,589	0.00%	-	-	-
ENSA	CITIBANK	USD	2023/11/1	1.00	6%	6.00%	36,309	145	36,455	0.00%	-	-	-
ENSA	SCOTIABANK	USD	2023/12/5	1.00	6%	6.00%	114,662	430	115,091	0.00%	-	-	-
ENSA	CITIBANK	USD	2023/12/19	1.00	6%	6.00%	19,110	-	19,110	0.00%	-	-	-
ENSA	CITIBANK	USD	2023/12/29	1.00	6%	6.00%	1,911	1	1,912	0.00%	-	-	-
EPM	BONOS IPC III TRAMO	COP	2009/04/21	15.00	IPC + 6.24%	17.09%	198,400	5,950	204,350	20.01%	198,400	5,929	204,329
EPM	BONOS IPC IV TRAM 3	COP	2010/12/14	20.00	IPC + 4.94%	15.78%	267,400	(473)	266,927	18.40%	267,400	(1,324)	266,076
EPM	BONOS IPC V TRAMO II	COP	2013/12/4	10.00	IPC + 4.52%	0.00%	-	-	-	18.44%	96,210	566	96,776
EPM	BONOS IPC V TRAM III	COP	2013/12/4	20.00	IPC + 5.03%	16.00%	229,190	(1,017)	228,173	18.58%	229,190	(1,142)	228,048
EPM	BONOS IPC VI TRAMO II	COP	2014/07/29	12.00	IPC + 4.17%	15.16%	125,000	1,954	126,954	17.71%	125,000	1,968	126,968
EPM	BONOS IPC VI TRAM III	COP	2014/07/29	20.00	IPC + 4.5%	15.43%	250,000	2,010	252,010	17.98%	250,000	2,584	252,584
EPM	BONOS IPC V TRAM IV	COP	2015/03/20	8.71	IPC + 3.65%	0.00%		-	-	18.26%	130,000	941	130,941
EPM	BONOS IPC VII TRAMO II	COP	2015/03/20	12.00	IPC + 3.92%	14.69%	120,000	(132)	119,868	17.32%	120,000	(638)	119,362
EPM	BONOS IPC VII TRAM III	COP	2015/03/20	20.00	IPC + 4.43%	15.13%	260,000	(409)	259,591	17.71%	260,000	(1,125)	258,875
EPM	BID-1664-1	COP	2016/03/31	9.69	7.8%	9.36%	94,923	138	95,061	9.16%	142,385	425	142,810
EPM	BID 2120-1	COP	2014/05/27	9.33	6.272%	0.00%	-	-	-	8.72%	190,295	1,760	192,055
EPM	BANK OF TOKYO-MIT SUB	USD	2008/09/29	15.00	Libor 6M + 0.95%	0.00%		-	-	5.92%	80,099	1,371	81,470
EPM	GLOBAL 2024 COP	COP	2014/09/10	10.00	7.625%	7.73%	965,745	21,328	987,073	7.73%	965,745	20,425	986,170
EPM	AGRARIO	COP	2014/06/24	16.00	IBR + 2.4%	14.16%	73,073	936	74,009	14.45%	84,673	1,233	85,906
EPM	AFD	USD	2012/08/10	14.98	4.311%	4.39%	430,866	7,777	438,643	4.40%	677,827	12,051	689,878
EPM	BID 2120-2	COP	2016/08/23	17.59	7.5%	9.06%	262,903	539	263,442	9.10%	287,942	266	288,208
EPM	BNDES	USD	2016/04/26	23.67	4.887%	4.79%	373,618	3,929	377,547	4.76%	472,047	5,984	478,031

Company	Entity or loan	Original Currency	Initial date	Term	Nominal interest rate	December 31, 2023				December 31, 2022			
						IRR	Nominal value	Amortized cost value	Total Value	IRR	Nominal value	Amortized cost value	Total Value
EPM	GLOBAL 2027 COP	COP	2017/11/8	10.00	8.375%	8.46%	4,165,519	51,394	4,216,913	8.46%	4,165,519	51,346	4,216,865
EPM	BID 2120-3	COP	2017/12/8	16.30	6.265%	7.61%	130,888	595	131,483	7.64%	143,354	627	143,981
EPM	CAF	USD	2016/10/3	18.00	SOFR 6M + 3.52826%	8.76%	646,808	17,465	664,273	8.30%	888,037	17,767	905,804
EPM	1023 BONOS USD	USD	2019/07/18	10.00	4.25%	4.39%	3,822,050	56,098	3,878,148	4.39%	4,810,200	67,110	4,877,310
EPM	BID 2120-4	COP	2020/06/17	13.77	5%	6.07%	284,124	2,837	286,961	6.08%	311,184	3,534	314,718
EPM	BONOS USD 2030	USD	2020/07/15	10.58	4.375%	4.60%	2,197,679	13,520	2,211,199	4.60%	2,765,865	13,690	2,779,555
EPM	FINDETER	COP	2021/01/28	3.00	0%	0.00%	1,839	-	1,839	0.00%	23,903	-	23,903
EPM	BBVA	COP	2021/05/18	3.00	IBR 1M + 0.1%	12.53%	382	2	383	11.22%	763	7	770
EPM	BBVA	COP	2021/05/18	3.00	IBR 1M + 0.1%	12.53%	4,969	25	4,994	11.23%	9,938	85	10,023
EPM	BBVA	COP	2021/05/18	2.00	IBR 1M + 0.1%	0.00%	-	-	-	11.18%	8,568	55	8,623
EPM	JP MORGAN	COP	2021/11/24	4.98	IBR OIS + 2.477%	15.44%	979,250	9,848	989,098	14.09%	979,250	10,888	990,138
EPM	AFD	USD	2023/09/18	9.16	SOFR 6M + 2.12%	7.67%	577,130	182	577,311	0.00%	-	(102)	(102)
EPM	UMB BANK	USD	2022/12/19	5.00	SOFR 3M + 2.2%	8.23%	2,308,518	(29,832)	2,278,686	7.59%	1,443,060	(19,489)	1,423,571
EPM	BANCO POPULAR	COP	2022/12/2	1.00	IBR 3M + 6.62%	0.00%	-	-	-	17.74%	120,000	1,749	121,749
EPM	BNP TESORERIA	USD	2023/11/15	0.99	SOFR 1M + 2.25%	7.61%	649,749	2,335	652,084	0.00%	-	-	-
EPM	BNP TESORERIA	USD	2023/12/22	0.99	SOFR 1M + 2.25%	7.61%	114,662	242	114,904	0.00%	-	-	-
EPM	SANTANDER TESORERIA	USD	2023/12/20	1.00	SOFR 1M + 2.25%	7.61%	382,205	969	383,174	0.00%	-	-	-
EPM	COMISIONES	USD	2023/12/1	-	-	0.00%	-	(16)	(16)	0.00%	-	-	-
ESSA	BOGOTÁ	COP	2016/01/27	7.00	IBR + 1.88%	0.00%	-	-	-	10.92%	1,500	42	1,542
ESSA	BOGOTÁ	COP	2016/02/16	7.00	IBR + 1.88%	0.00%	-	-	-	10.95%	1,300	29	1,329
ESSA	BOGOTÁ	COP	2016/03/28	7.00	IBR + 1.88%	0.00%	-	-	-	11.18%	700	7	707
ESSA	BOGOTÁ	COP	2016/04/14	7.00	IBR + 1.88%	0.00%	-	-	-	11.56%	1,275	41	1,316
ESSA	BOGOTÁ	COP	2016/07/1	12.00	IBR + 3.15%	15.42%	10,000	481	10,481	15.11%	12,000	524	12,524
ESSA	BOGOTÁ	COP	2016/08/19	12.00	IBR + 3.15%	15.34%	4,000	118	4,118	15.01%	4,800	136	4,936
ESSA	BOGOTÁ	COP	2016/10/13	12.00	IBR + 3.15%	15.40%	4,725	208	4,932	15.09%	5,625	225	5,850
ESSA	BOGOTÁ	COP	2016/11/11	12.00	IBR + 3.15%	15.56%	18,375	535	18,910	15.22%	21,875	595	22,470
ESSA	BOGOTÁ	COP	2016/12/5	12.00	IBR + 3.15%	15.43%	4,200	91	4,291	15.07%	5,000	106	5,106
ESSA	BOGOTÁ	COP	2016/12/14	12.00	IBR + 3.15%	15.45%	7,875	110	7,985	15.06%	9,375	141	9,516
ESSA	BOGOTÁ	COP	2017/01/11	12.00	IBR + 3.15%	15.41%	8,244	372	8,616	15.08%	9,744	401	10,146
ESSA	BOGOTÁ	COP	2017/01/16	12.00	IBR + 3.15%	15.38%	5,494	239	5,734	15.07%	6,494	257	6,751
ESSA	BOGOTÁ	COP	2017/05/15	12.00	IBR + 3.15%	15.45%	5,750	174	5,924	15.10%	6,750	193	6,943
ESSA	BBVA	COP	2017/06/14	12.00	IBR + 3.56%	16.18%	5,500	96	5,596	15.78%	6,500	114	6,614
ESSA	BBVA	COP	2017/06/29	12.00	IBR + 3.56%	15.94%	4,400	70	4,470	15.58%	5,200	85	5,285
ESSA	BBVA	COP	2017/07/13	12.00	IBR + 3.56%	16.06%	5,750	272	6,022	15.73%	6,750	291	7,041
ESSA	BBVA	COP	2017/09/28	12.00	IBR + 3.56%	16.14%	8,625	110	8,735	15.76%	10,125	132	10,257
ESSA	BBVA	COP	2017/10/12	12.00	IBR + 3.56%	16.07%	3,000	143	3,143	15.74%	3,500	153	3,653
ESSA	BBVA	COP	2017/10/30	12.00	IBR + 3.56%	16.08%	3,000	120	3,120	15.73%	3,500	133	3,633
ESSA	BBVA	COP	2017/11/29	12.00	IBR + 3.56%	16.14%	4,200	107	4,307	15.79%	4,900	121	5,021
ESSA	BBVA	COP	2017/12/11	12.00	IBR + 3.56%	16.16%	2,400	48	2,448	15.77%	2,800	55	2,855
ESSA	BBVA	COP	2017/12/14	12.00	IBR + 3.56%	16.17%	8,400	155	8,555	15.77%	9,800	180	9,980
ESSA	BBVA	COP	2017/12/26	12.00	IBR + 3.56%	16.21%	54,000	678	54,678	15.83%	63,000	796	63,796
ESSA	BOGOTÁ	COP	2017/12/26	12.00	IBR + 3.15%	15.25%	6,250	114	6,364	14.89%	7,250	137	7,387
ESSA	BBVA	COP	2018/10/29	12.00	IBR + 2.91%	14.57%	28,000	1,294	29,294	14.84%	32,000	1,484	33,484
ESSA	BBVA	COP	2018/11/28	12.00	IBR + 2.91%	14.48%	4,200	150	4,350	14.76%	4,800	178	4,978
ESSA	BBVA	COP	2018/12/26	12.00	IBR + 2.91%	14.42%	37,800	956	38,756	14.77%	43,200	1,180	44,380
ESSA	POPULAR	COP	2018/12/28	12.00	IBR + 2.91%	14.22%	74,200	1,750	75,950	14.57%	84,800	2,203	87,003
ESSA	POPULAR	COP	2019/12/27	12.00	IBR + 2.91%	14.26%	75,200	1,887	77,087	14.62%	84,600	2,273	86,873
ESSA	DAVIVIENDA	COP	2020/09/4	3.00	IBR + 2.1%	0.00%	-	-	-	11.69%	5,625	109	5,733
ESSA	FINDETER	COP	2021/01/5	3.00	0%	0.00%	373	(0)	373	0.00%	4,853	(0)	4,853
ESSA	BBVA	COP	2021/02/26	2.00	IBR + 0.1%	0.00%	-	-	-	8.83%	2,927	18	2,945

Company	Entity or loan	Original Currency	Initial date	Term	Nominal interest rate	December 31, 2023				December 31, 2022			
						IRR	Nominal value	Amortized cost value	Total Value	IRR	Nominal value	Amortized cost value	Total Value
ESSA	DAVIVIENDA	COP	2021/02/26	12.00	IBR + 1.7%	13.97%	7,387	100	7,487	13.59%	8,059	127	8,186
ESSA	DAVIVIENDA	COP	2021/02/26	12.00	IBR + 1.7%	13.97%	1,641	22	1,663	13.59%	1,790	28	1,818
ESSA	BBVA	COP	2021/03/12	3.00	IBR + 0.1%	10.94%	1,206	11	1,217	10.19%	3,618	67	3,685
ESSA	DAVIVIENDA	COP	2021/04/23	3.00	IBR + 2.55%	13.76%	7,498	230	7,728	13.23%	22,498	799	23,297
ESSA	DAVIVIENDA	COP	2021/06/15	12.00	IPC E.A. + 3.7%	13.69%	47,500	1,070	48,570	16.00%	50,000	1,455	51,455
ESSA	BBVA	COP	2021/07/2	3.00	IBR + 0.2%	10.81%	592	10	602	10.51%	1,183	30	1,214
ESSA	BBVA	COP	2021/07/2	2.00	IBR + 0.2%	0.00%	-	-	-	9.21%	1,447	29	1,477
ESSA	DAVIVIENDA	COP	2021/09/14	10.00	IBR + 3.8%	16.29%	14,480	296	14,776	15.90%	14,948	331	15,279
ESSA	SUDAMERIS	COP	2021/12/17	5.00	IBR + 3.4%	15.46%	22,500	355	22,855	15.15%	30,000	511	30,511
ESSA	BOGOTÁ	COP	2022/04/7	1.00	T.N. + 8.9%	0.00%	-	-	-	8.84%	50,000	1,014	51,014
ESSA	BOGOTÁ	COP	2022/04/12	1.00	T.N. + 8.9%	0.00%	-	-	-	8.85%	50,000	955	50,955
ESSA	POPULAR	COP	2022/10/21	10.00	IBR + 4.45%	17.39%	10,000	343	10,343	17.08%	10,000	305	10,305
ESSA	AV VILLAS	COP	2022/10/21	10.00	IBR + 4.45%	17.36%	10,000	354	10,354	17.08%	10,000	305	10,305
ESSA	POPULAR	COP	2022/11/23	10.00	IBR + 4.45%	17.43%	20,000	668	20,668	17.09%	20,000	329	20,329
ESSA	AV VILLAS	COP	2022/11/23	10.00	IBR + 4.45%	17.44%	10,000	330	10,330	17.09%	10,000	165	10,165
ESSA	AV VILLAS	COP	2022/12/5	10.00	IBR + 4.45%	17.44%	20,000	661	20,661	17.09%	20,000	226	20,226
ESSA	CAF	COP	2022/12/7	15.00	IBR + 4.99%	18.24%	162,967	601	163,568	17.95%	162,967	234	163,201
ESSA	POPULAR	COP	2022/12/20	10.00	IBR + 4.45%	17.44%	30,000	988	30,988	17.10%	30,000	143	30,143
ESSA	BBVA	COP	2023/06/20	10.00	DTF E.A. + 3.55%	16.20%	50,000	258	50,258	0.00%	-	-	-
ESSA	BBVA	COP	2023/11/23	10.00	DTF E.A. + 3.55%	16.92%	30,000	492	30,492	0.00%	-	-	-
ESSA	AGRARIO	COP	2023/12/6	3.00	IBR + 1.9%	14.62%	80,000	751	80,751	0.00%	-	-	-
ESSA	BBVA	COP	2023/12/26	10.00	DTF E.A. + 3.55%	16.88%	40,000	86	40,086	0.00%	-	-	-
ESSA	COMISIONES CREDITOS NO DESEMBOLSADOS	COP	2023/01/1	-	-	0.00%	-	(30)	(30)	0.00%	-	-	-
GRUPO DECA	BANCO INDUSTRIAL	GTQ	2018/12/20	10.00	TAPP + -6.8%	5.56%	91,036	(680)	90,356	5.56%	137,046	(1,228)	135,817
GRUPO DECA	BANCO AMÉRICA CENTRAL	GTQ	2018/12/21	10.00	TAPP + -6.8 1%	5.56%	53,366	(397)	52,969	5.58%	80,337	(682)	79,655
GRUPO DECA	BANCO AGROMERCANTIL	GTQ	2019/01/24	10.00	TAPP + -6.87%	5.51%	122,787	148	122,935	5.51%	182,032	(38)	181,993
GRUPO DECA	BANCO AMÉRICA CENTRAL	USD	2018/12/21	10.00	LIBOR 90 + 2.26387%	5.09%	81,807	5,313	87,120	4.36%	123,660	4,342	128,002
GRUPO DECA	BANCO INTERNACIONAL	USD	2018/12/19	10.00	TAPP -1.25%	5.11%	13,634	144	13,778	4.80%	20,610	(121)	20,489
GRUPO DECA	BANCO AGROMERCANTIL	USD	2019/01/24	10.00	LIBOR 90 + 3.05%	5.90%	17,998	1,402	19,400	5.19%	26,793	1,285	28,079
GRUPO DECA	BANCO INDUSTRIAL	GTQ	2017/12/15	1.00	TAPP -1.5%	0.00%	48,831	-	48,831	5.50%	61,259	-	61,259
GRUPO DECA	BANCO INDUSTRIAL	GTQ	2018/12/20	10.00	TAPP-6.8%	5.88%	116,498	-	116,498	5.88%	175,377	-	175,377
GRUPO DECA	BANCO AMÉRICA CENTRAL	GTQ	2018/12/26	10.00	TAPP -6.81%	5.87%	53,715	-	53,715	5.87%	80,862	-	80,862
GRUPO DECA	BANCO AGROMERCANTIL	GTQ	2019/01/25	10.00	TAPP -6.87%	5.80%	122,787	1,045	123,832	5.80%	182,032	1,555	183,586
GRUPO DECA	BANCO AMÉRICA CENTRAL	USD	2018/12/26	10.00	LIBOR 90 + 2.26%	3.05%	27,269	-	27,269	3.05%	41,220	-	41,220
GRUPO DECA	BANCO INTERNACIONAL	USD	2018/12/19	10.00	TAPP -1.25%	5.09%	13,634	-	13,634	5.09%	20,610	-	20,610
GRUPO DECA	MERCOMBANK LTD	USD	2019/01/25	10.00	LIBOR 90 + 3.05%	3.83%	17,998	256	18,254	3.83%	26,793	284	27,078
GRUPO DECA	BANCOLOMBIA PANAMÁ	USD	2019/01/25	10.00	LIBOR 90 + 3.05%	3.84%	72,153	708	72,862	3.84%	107,241	1,138	108,379
GRUPO DECA	BANCOLOMBIA PANAMÁ	USD	2019/07/16	1.00	LIBOR 30 + 2.5739%	0.00%	-	-	-	6.45%	48,090	-	48,090
GRUPO DECA	BANCO INDUSTRIAL	GTQ	2021/11/24	7.00	TAPP + 5.57%	5.58%	443,320	(42)	443,278	5.57%	667,376	(258)	667,118
HET	BANESCO	USD	2021/11/15	10.00	3.9%	3.90%	155,378	398	155,776	3.90%	215,891	482	216,373
HIDROSUR	BANCO DEL ESTADO	CLP	2023/09/8	9.00	UF + 4.58%	4.70%	51,891	1,502	53,393	0.00%	-	-	-
MALAMBO	DAVIVIENDA	COP	2021/12/7	1.00	IBR + 4.1%	14.72%	-	-	-	14.72%	1,283	130	1,413
TICSA	SANTANDER	MXN	2016/06/14	7.00	TIIE + 2.4%	0.00%	-	-	-	7.01%	8,220	(946)	7,274
TICSA	BANK OF AMERICA	MXN	2022/06/17	1.00	TIIE + 1.8%	0.00%	-	-	-	9.12%	7,405	-	7,405
TICSA	SANTANDER	MXN	2016/06/14	10.00	TIIE + 2.4%	7.77%	30,918	(558)	30,360	7.77%	44,913	(434)	44,479
TICSA	SANTANDER	MXN	2016/06/14	14.00	TIIE + 2.4%	7.79%	18,212	291	18,503	7.79%	21,786	318	22,104
TICSA	INTERACCIONES	MXN	2020/12/31	15.33	TIIE + 3%	7.51%	12,582	1,030	13,613	7.51%	15,805	933	16,738
TICSA	BANCO DEL BAJÍO	MXN	2013/07/31	14.67	TIIE + 2.75%	8.48%	60,184	2,259	62,442	8.48%	75,655	1,699	77,354
TICSA	SANTANDER	MXN	2021/03/22	1.00	TIIE + 4%	7.55%	6,736	0	6,736	7.55%	11	0	11
TICSA	DAVIVIENDA	COP	2022/05/27	1.00	0%	14.00%	38,428	-	38,428	14.00%	8,955	-	8,955

Company	Entity or loan	Original Currency	Initial date	Term	Nominal interest rate	December 31, 2023				December 31, 2022			
						IRR	Nominal value	Amortized cost value	Total Value	IRR	Nominal value	Amortized cost value	Total Value
TICSA	BANK OF AMERICA	MXN	2023/11/15	1.00	TIIE + 2%	0.00%	22,590	-	22,590	0.00%	-	-	-
Total							**27,569,877**	**307,063**	**27,876,940**		**29,151,796**	**338,472**	**29,490,268**

Amount stated in millions of Colombian pesos

As of December 31, 2023 and 2022, the following movements associated with credits and loans are disclosed in the following items for presentation purposes in the statement of cash flows: i) obtaining public loans and treasury $6,556,486 and $3,797,929 for 2022; ii) public credit and treasury payments of $4,438,676 and $3,516,017 for 2022; iii) transaction costs for issuance of debt instruments: $16,847 and $26,617 for 2022.

Interest paid on credit operations as of December 31, 2023 was $-2,134,594 (2022: $1,627,130).

The assumed net exchange difference as of December 31, 2023 associated with the debt was $381,439 (2022: $-412,600).

As of the cut-off date, the loans used as hedging instruments for net investments in foreign businesses are those contracted with CAF and AFD and had designated USD 282 million (equivalent to COP 1,077,675) for 2023. The difference has been reclassified from the profit or loss for the period to other comprehensive income for $283,752 (2022: $216,145).

The information on the bonds issued is as follows:

Subseries	Original currency	Start Date	Term	Nominal interest rate	2023				2022				Amount awarded							
					IRR	Nominal value	Amortized Cost Value	Total value	IRR	Nominal value	Amortized Cost Value	Total value	Amount awarded to 2021	Amount awarded to 2020	Amount awarded to 2019	Amount awarded to 2018	Amount awarded to 2017	Amount awarded to 2016	Amount awarded to 2015	Amount awarded to 2014
A10a	COP	2013/12/4	10	IPC + 4.52%	0.00%	-	-	-	18.44%	96,210	566	96,776	96,210	96,210	96,210	96,210	96,210	96,210	96,210	96,210
A10a	COP	2015/03/20	9	IPC + 3.65%	0.00%				18.26%	130,000	941	130,941	130,000	130,000	130,000	130,000	130,000	130,000	130,000	
A12a	COP	2014/07/29	12	IPC + 4.17%	15.16%	125,000	1,954	126,954	17.71%	125,000	1,968	126,968	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000
A12a	COP	2015/03/20	12	IPC + 3.92%	14.69%	120,000	(132)	119,868	17.32%	120,000	(638)	119,362	120,000	120,000	120,000	120,000	120,000	120,000	120,000	-
A15a	COP	2009/04/21	15	IPC + 6.24%	17.09%	198,400	5,950	204,350	20.01%	198,400	5,929	204,329	198,400	198,400	198,400	198,400	198,400	198,400	198,400	198,400
A20a	COP	2010/12/14	20	IPC + 4.94%	15.78%	267,400	(473)	266,927	18.40%	267,400	(1,324)	266,076	267,400	267,400	267,400	267,400	267,400	267,400	267,400	267,400
A20a	COP	2013/12/4	20	IPC + 5.03%	16.00%	229,190	(1,017)	228,173	18.58%	229,190	(1,142)	228,048	229,190	229,190	229,190	229,190	229,190	229,190	229,190	229,190
A20a	COP	2014/07/29	20	IPC + 4.5%	15.43%	250,000	2,010	252,010	17.98%	250,000	2,584	252,584	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
International bonus	COP	2015/03/20	20	IPC + 4.43%	15.13%	260,000	(409)	259,591	17.71%	260,000	(1,125)	258,875	260,000	260,000	260,000	260,000	260,000	260,000	260,000	-
International bonus	COP	2014/09/10	10	7.625%	7.73%	965,745	21,328	987,073	7.73%	965,745	20,425	986,170	965,745	965,745	965,745	965,745	965,745	965,745	965,745	965,745
International bonus	COP	2017/11/8	10	8.375%	8.46%	4,165,519	51,394	4,216,913	8.46%	4,165,519	51,346	4,216,865	4,165,519	4,165,519	3,530,000	2,300,000	2,300,000	-	-	-
International bonus	USD	2019/07/18	10	4.25%	4.39%	3,822,050	56,098	3,878,148	4.39%	4,810,200	67,110	4,877,310	3,981,160	3,432,500	3,277,140	-	-	-	-	-
International bonus	USD	2020/07/15	11	4.375%	4.60%	2,197,678	13,520	2,211,198	4.60%	2,765,865	13,689	2,779,554	2,289,167	1,973,688	-	-	-	-	-	-
TOTAL						**12,600,982**	**150,225**	**12,751,207**		**14,383,529**	**160,329**	**14,543,858**	**13,077,791**	**12,213,652**	**9,449,085**	**4,941,945**	**4,941,945**	**2,641,945**	**2,641,945**	**2,131,945**

Figure in millions of Colombian pesos, the exchange rate used was the TRM at the end of each period

The detail of the international bonds issued by subsidiaries of the EPM Group is as follows:

ENSA:

Type of bond	Original Currency	Start Date	Term	Nominal interest rate	2023				2022				Amount awarded							
					IRR	Nominal value	Amortized cost	Total Value	IRR	Nominal value	Amortized cost	Total Value	to 2021	to 2020	to 2019	to 2018	to 2017	to 2016	to 2015	to 2014
Bonds	USD	13/12/2012	15	4.73%	3.46%	305,764	(1,126)	304,638	3.46%	384,816	(1,926)	382,890	-	-	-	-	-	-	-	-
Bonds	USD	1/07/2021	15	3.87%	4.05%	382,205	1,758	383,963	4.05%	481,020	1,826	482,846	-	-	-	-	-	-	-	-
TOTAL						**687,969**	**632**	**688,601**		**865,836**	**(100)**	**865,736**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Figure in millions of Colombian pesos, the exchange rate used was the TRM at the end of each period

WATERS OF ANTOFAGASTA:

Type of bond	Original Currency	Start Date	Term	Nominal interest rate	2023				2022				Amount awarded							
					IRR	Nominal value	Amortized cost	Total Value	IRR	Nominal value	Amortized cost	Total Value	to 2021	to 2020	to 2019	to 2018	to 2017	to 2016	to 2015	to 2014
Bonds	CLP	18/12/2020	5.00	UF + 0.995%	0.20%	105,971	2,478	108,448	0.20%	198,240	6,409	204,649	-	-	-	-	-	-	-	-
Bonds	CLP	18/12/2020	13.00	UF + 1.4396%	2.01%	317,912	23,315	341,227	2.01%	396,481	32,063	428,544	-	-	-	-	-	-	-	-
Bonds	CLP	14/05/2021	4.50	UF + 0.995%	0.63%	105,971	2,130	108,101	0.63%	198,240	5,323	203,563	-	-	-	-	-	-	-	-
Bonds	CLP	14/05/2021	12.50	UF + 1.4396%	2.51%	476,868	18,963	495,831	2.51%	594,721	25,551	620,272	-	-	-	-	-	-	-	-
TOTAL						**1,006,721**	**46,886**	**1,053,607**		**1,387,682**	**69,346**	**1,457,028**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Figure in millions of Colombian pesos, the exchange rate used was the TRM at the end of each period

In 2023, the EPM Group presented the following credit developments:

- **January**
  - Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS): BBVA Bank for $44,000.
  - Empresa de Energía del Quindío S.A. E.S.P. (EDEQ): Banco AV Villas for $15,000.
  - Afinia: Banco Davivienda for $60,000.
  - TICSA: Banco Santander MXN30 equivalent to $6,694

- **February**
  - Empresa de distribución de energía del noreste de Panamá S.A. (ENSA): Bladex for USD 12.6 million equivalent to $60,526 and Citibank for USD 18 million equivalent to $86,120.

- **March**
  - EPM Matrix: BNDES long-term loan for USD 5.7 million, equivalent to $26,868.
  - Regional Waters: BBVA Bank for $5,000.
  - Empresa de Energía del Quindío S.A. E.S.P. (EDEQ): Banco de Occidente for $21,500.
  - Empresa de distribución de energía

- **April**
  - TICSA: Banco Davivienda for $7,122.
  - Caldas Hydroelectric Power Plant (CHEC): BBVA for $30,000

- **May**
  - Empresa de distribución de energía del noreste de Panamá S.A. (ENSA): Scotiabank for USD 73 million, equivalent to $331,426.
  - TICSA: Banco Santander MXN31 equivalent to $7,841.

- **June**
  - Electrificadora de Santander (ESSA): BBVA Bank for $50,000.
  - Empresa de distribución de energía del noreste de Panamá S.A. (ENSA): Citibank for USD 25 million equivalent to $105,232.
  - TICSA: Banco Davivienda for $3,828.

- **July**
  - EPM Parent: Club Deal long-term loan for USD 120 million equivalent to $494,273
  - Regional Waters: Banco Davivienda for $7,000.
  - Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS): Banco de Occidente for $10,000.
  - TICSA: Banco Davivienda $4,938
  - Empresa de distribución de energía del noreste de Panamá S.A. (ENSA): Bladex for USD 12 million equivalent to $48,831 and Citibank for USD 29.5 million equivalent to $120,042.
  - Grupo Deca: Banco Industrial for USD 76 million, equivalent to $110,310.
- **August**
  - EPM Parent: Club Deal long-term loan for USD 100 million equivalent to $395,523
  - Regional Waters: Banco Davivienda for $13,000.
  - Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS): Banco de Occidente for $14,666 and Banco Davivienda for $20,000.
  - Caldas Hydroelectric Power Plant (CHEC): Banco Davivienda for $100,000.
  - Empresa de distribución de energía del noreste de Panamá S.A. (ENSA): Scotiabank for USD 65 million equivalent to $264,597, Citibank for USD 12.5 million equivalent to $50,884 and IDB for USD 25 million equivalent to $101,768.
- **September**
  - EPM Matrix: AFD long-term loan for USD 100 million equivalent to $392,828
  - Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS): Banco Davivienda for $35,202.

- Caldas Hydroelectric Power Plant (CHEC): Banco Davivienda for $100,000.
- Hidrosur: Banco del Estado for CLP 11,817 million, equivalent to $53,711.
- Empresa de distribución de energía del noreste de Panamá S.A. (ENSA Citibank for USD 29.5 million equivalent to $118,133.
- From the South: Banco Cuscatlán for USD 15 million, equivalent to $60,068.

October

- Empresa de Energía del Quindío S.A. E.S.P. (EDEQ): Banco Davivienda for $30,000.
- Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS): Banco Davivienda for $54,798.
- Empresa de distribución de energía del noreste de Panamá S.A. (ENSA): Scotiabank for USD 90 million equivalent to $380,019, Citibank for USD 29.5 million equivalent to $124,562, IDB for USD 25 million equivalent to $105,561 and Banesco for USD 15 million equivalent to $63,336.
- Hidrosur: Banco del Estado for CLP 36.6 equivalent to $163.
- TICSA: Banco Davivienda $8,410

November

- EPM Parent: AFD long-term loan for USD 51 million, equivalent to $210,003, BNP Treasury Credit for USD 170 million, equivalent to $673,807, Club Deal long-term loan for USD 84 million, equivalent to $334,376.
- Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS): Banco Popular for $24,667 and Banco de Bogotá for $24,667.

- Electrificadora de Santander (ESSA): Banco BBVA for $30,000.
- Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS): BBVA Bank for $40,000.
- Empresa de distribución de energía del noreste de Panamá S.A. (ENSA): Citibank for USD 29.5 million equivalent to $119,145.
- TICSA: Banco de América MXN 30 million equivalent to $6,968.

December

- EPM Matrix: BNP Treasury Loan for USD 30 million, equivalent to $118,291, Santander Treasury Credit for USD 100 million, equivalent to $392,577.
- Caldas Hydroelectric Power Plant (CHEC): INFICALDAS for $22,000 and Banco ITAU for $30,000.
- Empresa de Energía del Quindío S.A. E.S.P. (EDEQ): Banco de Occidente for $36,240.
- Electrificadora de Santander (ESSA): Banco Agrario for $80,000 and Banco BBVA for $40,000.
- Centrales Eléctricas del Norte de Santander S.A. E.S.P. (CENS): Banco ITAU for $20,000.
- Empresa de distribución de energía del noreste de Panamá S.A. (ENSA): Citibank for USD 10 million equivalent to $39,482 and Scotiabank for USD 35 million equivalent to $138,187.
- TICSA: Banco de América MXN 100 million equivalent to $22,994.

Covenant Debt / EBITDA

The EPM Group has different financial commitments (covenant), established in the loan contracts signed with the French Development Agency - AFD, Inter-American Development Bank, CAF - Development Bank of Latin

America, National Bank for Economic and Social Development - BNDES, JPMorgan and the Deal Club (BNP Pariba, BBVA, Scotiabank and Sumitomo). These contracts include some of the following covenants: Net Debt/EBITDA LTM, EBITDA/Financial Expenses, EBITDA/Net Financial Expenses, and Long-Term Debt/Equity.

At the end of December 2023, EPM was in compliance with the agreed financial covenants.

Covenants	Entity	Limit Indicator	2023	2022
EBITDA/Financial Expenses	BNDES - AFD	>3	3.61	4.71
EBITDA/Net Financial Expenses	CAF - JPMorgan - UMB Bank - AFD	>3	3.97	5.35
Long Term Debt/EBITDA LTM	JBIC	<3.5	2.62	2.95
Long-term net debt/EBITDA LTM	AFD - CAF - JPMorgan - BID - UMB Bank	<4	2.31	2.45
Long Term Debt/Equity	JBIC - BNDES - BID - AFD	<1.5	0.79	0.85

Non-compliance

During the accounting period, the company has paid the principal and interest on its loans.

Note 22.

Creditors and others accounts payable

Trade and other payables are measured at amortized cost and consist of:

Trade and other payables	2023	2022
Non-current		
Accounts payable	85,052	130,343
Acquisition of goods and services	113,617	76,380
Deposits received in guarantee [1]	393,665	469,814

Total accounts payable and other non-current accounts payable	**592,334**	**676,537**
Total accounts payable and other non-current accounts payable		
Accounts payable [2]	1,729,254	1,278,775
Acquisition of goods and services	3,215,748	2,991,793
Subsidies allocated	83,150	58,555
Other accounts payable	8,685	8,434
Deposits received in guarantee	34,052	38,841
Commissions payable	2,110	2,111
Total current trade and other payables	**5,072,999**	**4,378,509**
Total trade and other payables	**5,665,333**	**5,055,046**

- Amount stated in millions of Colombian pesos -

[1] In Guatemala, the General Electricity Law establishes that all new users must provide the distributor with a payment guarantee. This guarantee may be provided in monetary form or by means of a bond and is calculated for each category of user as the amount equivalent to two average monthly invoices of a typical user of the same category. EEGSA collects such guarantees from its customers and records the amounts received as "Consumer Deposits". In accordance with the provisions of the General Electricity Law, Decree No. 93-96 of November 15, 1996, Article 94, from that date until March 10, 2007, deposits received from customers accrued real interest at 5 % per annum. As of March 11, 2007, deposits received must be returned by adding to the principal the monthly weighted average lending interest 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 guarantee plus the total interest accrued and capitalized each year less any outstanding debts and costs incurred by the user.

As of December 31, 2006, EEGSA records a provision for interest originated by the payment guarantees.

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 energy service provided by EEGSA. In 2022, these deposits have been classified as non-current liabilities because the Company does not expect to make significant payments in the next year, based on estimates and recurrence of customer withdrawals, in addition to the going concern assumption.

As of December 31, 2023, the amount of consumer deposits was $358,239 (2022: $425,619).

[2] Includes insurance, product of the all-risk policy for the construction and assembly of the second stage of the Ituango hydroelectric plant, as well as for the increase in the registration of estimates for the commercial operation.

The term for payment to suppliers is generally 30 calendar days, with exceptions that are documented in the processes and determined, among others, by the type of obligation and contract.

Non-compliances

During the accounting period, the Group has not defaulted in the payment of creditors and other accounts payable.

Note 23.

Other financial liabilities

Los otros pasivos financieros están compuestos por:

Other financial liabilities	2023	2022
Non-current		
Lease liabilities	749,199	742,790
Pension bonds	160,409	142,137
Derivatives for cash flow hedging purposes [2] (see note 24)	906,564	4,065
Total other non-current financial liabilities	**1,816,172**	**888,992**
Current		
Lease liabilities	146,599	131,356
Financial liabilities measured at fair value through profit or loss for the period [1]	-	49,090
Pension bonds	601,367	506,284
Derivatives for cash flow hedging purposes [2] (see note 24)	8	-
Total other current financial liabilities	**747,974**	**686,730**
Total other financial liabilities	**2,564,146**	**1,575,722**

- Amount stated in millions of Colombian pesos -

[1] It includes the valuation of the premium of the climate derivative, the objective of which is to have the coverage of the risk in income due to the occurrence of extreme weather events that affect rainfall and, therefore, the contractual commitments of energy generation. The change in financial liabilities measured at fair value is due to the fact that the last instalment of the climate derivative premium was paid in 2023.

[2] The variation is due to the revaluation of 20.54 % so far this year and to the higher interest rates, specifically the IBR, due to the fact that the right is devalued considerably, increasing the obligation in the fair value account

Conventional purchases and sales of financial liabilities are accounted for on a trading date.

23.1. Financial liabilities designated at fair value through profit or loss

Financial liability for premiums payable from the climate derivative, which has been contracted to cover dry seasons that imply a decrease in hydropower generation and the rise in energy prices on the stock market. It is measured at fair value with changes to profit or loss, in order to

achieve the asymmetry or "match" the financial asset (derivative/option, measured at fair value through profit or loss) with the financial liability (premiums payable).

Its valuation technique is the average of expected future flows, discounted at a risk-free rate plus a spread that takes into account the possibility of default (own credit risk).

23.2. Financial liabilities designated at fair value through profit or loss, with the effects of the change in the credit risk of the liability recognized in profit or loss for the period

Concept	2023	2022
Gain (loss) for the period from changes in fair value attributable to changes in credit risk recognized in profit or loss for the period	-	1,169
Difference between the carrying amount and the value payable at the time of liquidation:	-	(8,391)
Carrying amount of liability	-	49,090
Value to be paid at the time of liquidation	-	57,481
Total	-	**49,090**

- Amount stated in millions of Colombian pesos -

The Group has determined that presenting the effects of changes in the credit risk of a liability in other comprehensive income would create or increase an accounting asymmetry in the result of the period, this asymmetry is generated given that EPM's rating is BB+ and the NewRe is AA. It should be noted that this liability comes from a contract that is linked to an option-type derivative instrument, which represents an asset for EPM. The derivative instrument (asset) is valued at fair value (including credit risk) with changes in results since it is not designated in hedge accounting.

Non-compliance

During the accounting period, Grupo EPM has not defaulted on the payment of principal and interest on its loans.

Note 24.

Derivatives and hedges

The group has the following types of hedges:

- Cash flow hedges, which consist of covering the variation in future cash flows attributable to certain risks, such as interest rates and exchange rates that may impact results, their fair values at the end of the reporting period amount to:
  - Swaps: A net obligation of $906,328 See note 23 | Other financial liabilities (2022: net entitlement $459,935).

    The hedging relationship is effective taking into account that the fundamental financial conditions (such as nominal, interest rate, payment dates and maturity) of the hedging instrument and the hedged item coincide, in accordance with IFRS 9, based on a qualitative assessment of those fundamental conditions, that the hedging instrument and the hedged item have values that will generally move, in the opposite direction due to the same risk and, therefore, that there is an economic relationship between the hedged item and the hedging instrument.
  - Ticsa Swaps: Entitlement for $2,768 (2022: $2,768 Entitlement).
- Hedging of net investments in foreign operations, the purpose of which is to hedge equity against exchange rate risks that EPM may have, by the method of participation in the effect by translation of financial statements in investments in subsidiaries with functional currency dollar for more details See note 21 | 21 Credits and loans and See note 20 | Other accumulated comprehensive income. The effectiveness tests tests of these hedges are carried out with the

"lesser of" test, which consists of identifying the effectiveness as the lower cumulative value between the valuation of the hedging instrument and that of the hedged item and any difference is considered ineffective recognized in profit or loss for the period.

The risks that have been hedged in these transactions are presented below, for more details

See note 43 | Financial risk management objectives and policies

Hedging Classification	Description	Covered risk	Section	Hedged item	Carrying amount of hedged item	Carrying amount of hedging instrument	Changes in fair value of the hedging instrument during the period	Changes in the fair value of the hedged item during the period	Ineffectiveness of the hedge recognized in profit or loss for the period	Effectiveness of the hedge recognized in other comprehensive income	Reclassification from other comprehensive income to income for the period[1]
Cash flow hedging											
Swaps	Cross Currency Swap	USD/COP exchange rate and Libor/fixed interest rate of debt service	International and club bonds	Loans in U.S. Dollars	8,368,033	(906,328)	(1,366,262)	711,168	N.A	(1,366,262)	(2,205,381)
Net investment coverage abroad	The hedging instrument in USD that are not hedged and do not capitalize, in this case it would be CAF and AFD	USD/COP exchange rate	Investments in subsidiaries in HET, PDG and MaxSeguros.	Las inversiones en subsidiarias con moneda funcional USD	1,254,698	1,077,675	(568,289)	(160,017)	(26,178)	(283,752)	N.A

- Amount stated in millions of Colombian pesos -

[1] *The reclassification of other comprehensive income to profit or loss for the period, for swap instruments, affected the interest item, exchange difference, interest exchange rate difference and the principal of the right. In addition, $45,091 was capitalized as borrowing costs mainly to the Ituango project.*

Foreign exchange risk hedging operations are part of the public debt regulated in Decree 1068 of 2015, therefore, they require the general approval of the operation via resolution, as well as the official authorization of each of the confirmation letters that will be signed with the financial institutions with the potential to participate in the respective operations.

Decree 1575 of 2022, presented some modifications to Decree 1068 of 2015, in the sense of incorporating greater efficiency in the process of obtaining authorizations to manage the risks of the market of derivatives of financial liabilities in dollars, so that when it comes to public credit operations or similar subject to the approval of the Ministry of Finance and Public Credit, These operations may be authorized simultaneously in the same resolution together with the risk hedging operations. In any case, the authorized entity may only contract the risk hedging operation on the amounts effectively disbursed from the public credit operation or assimilated in whole or in part.

Cash Flow Hedging

The Group expects the cash flows that are under cash flow hedging accounting to be realized in the period between January 1, 2023 and February 15, 2031, for more details

See note 43 | Financial risk management objectives and policies, number 42.1 Market risk.

The characteristics of the main cash flow hedging instruments that fall under hedge accounting are as follows:

Current hedge

Features									
Covered underlay	Bonds 2029	Bonds 2029	Bonds 2029	Bonds 2029	Bonds 2029	Bonds 2029	Bonds 2029	Bonds 2029	Bonds 2029
Close Date	8-jun-20	7-jul-20	10-jul-20	15-jul-20	15-jul-20	9-nov-20	12-nov-20	18-may-21	2-jun-21
Derivative Type	CCS	CCS	CCS	CCS	CCS	CCS	CCS	CCS	CCS
Counterparty	BNP Paribas	JP Morgan	JP Morgan	Scotia Bank	Goldman Sachs	Goldman Sachs.	BBVA	Merrill Lynch	BANCO BILBAO VIZCAYA ARGENTARIA, S.A.
Nominal (USD)	100,000,000	50,000,000	100,000,000	100,000,000	100,000,000	125,000,000	125,000,000	100,000,000	100,000,000
Spot exchange rate	3,597	3,627	3,617	3,606	3,608	3,657	3,642	3,649	3,638
Due Date	18-jul-29	18-jul-29	18-jul-29	18-jul-29	18-jul-29	18-jul-29	18-jul-29	18-jul-29	18-jul-29

* CCS : Cross Currency Swap

Current hedge

Features								
Covered underlay	Bonds 2029	Bonds 2031	Bonds 2031	Bonds 2031	Bonds 2031	Bonds 2031	Bonds 2031	Bonds 2031
Close Date	3-jun-21	11-sep-20	16-sep-20	22-oct-20	23-oct-20	29-ene-21	11-mar-21	4-jun-21
Derivative Type	CCS	CCS	CCS	CCS	CCS	CCS	CCS	CCS
Counterparty	Merrill Lynch International	JP Morgan	JP Morgan	Sumitomo Mitsui Banking Corporation, New York Branch	JP Morgan	BNP Paribas	Goldman Sachs	CITIBANK
Nominal (USD)	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	75,000,000	75,000,000	25,000,000
Spot exchange rate	3,647	3,709	3,708	3,774	3,774	3,568	3,525	3,602
Due Date	18-jul-29	15-feb-31	15-feb-31	15-feb-31	15-feb-31	15-feb-31	15-feb-31	15-feb-31

* CCS : Cross Currency Swap

Current hedge

Features							
Covered underlay	Bonds 2031	Club Deal	Club Deal	Club Deal	Club Deal	Club Deal	Club Deal
Close Date	4-jun-21	10-jul-23	12-jul-23	13-jul-23	18-jul-23	23-oct-23	4-dec-23
Derivative Type	CCS	CCS	CCS	CCS	CCS	CCS	CCS
Counterparty	CITIBANK	Scotia Bank	Scotia Bank	JP Morgan	BNP Paribas	JP Morgan	JP Morgan
Nominal (USD)	25,000,000	100,000,000	100,000,000	100,000,000	120,000,000	100,000,000	84,000,000
Spot exchange rate	3,602	4,157	4,133	4,103	3,990	4,214	3,999
Due Date	15-feb-31	17-dec-27	17-dec-27	17-dec-27	17-dec-27	17-dec-27	17-dec-27

* CCS : Cross Currency Swap

TICSA

Characteristics	COLIMA	CELAYA
Covered underlay	Credit Santander	Credit Santander
Section No.	1	1
Close Date	31-dic-19	31-dic-19
Derivative Type	Swap	Swap
Counterparty	Santander	Santander
Nominal (MXN)	282,750,000	95,250,000
Strike	N.A	N.A
Obligation (MXN)	377,000,000	127,000,000
EPM pays	6.1259%	6.40%
EPM Receives	TIIE+Spread Variable	TIIE+Spread Variable
Maturity date	12-feb-24	10-dec-26
Initial exchange	No	No
Final exchange	No	No
Modality	Non Delivery	Non Delivery

Non-Hedging Climate Derivative

EPM currently has a risk coverage called "Climate Derivative" which is based on a put option and whose objective is to have coverage of the risk in income due to the occurrence of extreme weather events that affect rainfall and therefore the contractual commitments of power generation. It also serves to protect the exposure to risk due to purchases on the energy exchange in these periods, which consequently also increases. Under this coverage, all the impact that the company could receive due to the non-generation and non-compliance with contractual commitments is transferred to the reinsurance market.

Embedded derivatives

The company has not entered into contracts that contain embedded derivatives.

Derivatives that are not under hedge accounting

The Group has entered into contracts containing derivatives that are not under hedge accounting.

See note 13 | Other Financial Assets

Note 25.

Employee Benefits

The category of employee benefits recognized as of the cut-off date is as follows:

Employee benefits	2023	2022
Non-current		
Post-employment benefits	808,317	608,062
Long-term benefits	115,031	91,465
Termination benefits	172	181
Other benefits	-	-
Total non-current employee benefits	923,520	699,708
Current		
Short-term benefits	297,724	264,047
Post-employment benefits	139,778	126,848
Total current employee benefits	437,502	390,895
Total	1,361,022	1,090,603

- Amount stated in millions of Colombian pesos -

25.1. Post-employment benefits

Includes the defined benefit plans and defined contribution plans detailed below:

25.1.1 Defined benefit plans

Defined benefit plans	Pensions[1]		Retroactive severance[2]		Public services subsidy[3]		Educational aid plan[4]		Other defined benefit plans		Total	
	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022
Present value of defined benefit obligations												
Initial balance	747,472	889,743	127,547	135,034	31,779	36,372	1,174	856	45,353	37,633	953,325	1,099,638
Present service cost	5,415	3,168	3,273	3,750	105	189	-	-	3,727	2,968	12,520	10,075
Interest income or (expense)	78,194	60,940	13,265	9,012	4,017	2,924	126	51	37	36	95,639	72,963
New measurements	(142)	2,943	-	-	-	-	-	-	24	(169)	(118)	2,774
Experience assumptions	13,550	(3,459)	38,421	18,595	1,484	4,147	11	190	-	-	53,466	19,473
Demographic assumptions	845	(550)	(6)	3	-	-	-	1	-	-	839	(546)
Financial assumptions	158,568	(137,463)	13,743	(12,819)	9,151	(8,516)	208	(137)	-	-	181,669	(158,935)
Past service cost	6,810	7,443	11,193	381	-	(367)	12	361	-	-	18,014	7,818
Foreign currency translation effect	(15,240)	10,994	-	-	(117)	153	-	-	(9,680)	7,918	(25,036)	19,065
Contributions made to the plan	-	-	-	-	-	-	-	-	-	-	-	-
Payments made by the plan	(94,617)	(89,296)	(42,194)	(26,409)	(3,928)	(3,123)	(193)	(148)	(2,502)	(4,393)	(143,435)	(123,369)
Business combinations	-	-	-	-	-	-	-	-	-	-	-	-
Other changes	2,045	3,009	-	-	3	-	-	-	1,380	1,360	3,428	4,369
Present value of obligations at December 31	**902,900**	**747,472**	**165,241**	**127,547**	**42,494**	**31,779**	**1,338**	**1,174**	**38,338**	**45,353**	**1,150,311**	**953,325**
Fair amount of plan assets												
Initial balance	218,416	235,911	-	-	-	-	-	-	-	-	218,416	235,911
Contributions made to the plan	10,708	5,879	-	-	-	-	-	-	-	-	10,708	5,879
Payments made by the plan	(56,372)	(54,978)	-	-	-	-	-	-	-	-	(56,372)	(54,978)
Interest income	22,628	15,236	-	-	-	-	-	-	-	-	22,628	15,236
Actuarial gains or losses:	-	-										
Expected return on plan (excluding interest income).	13,105	5,900	-	-	-	-	-	-	-	-	13,105	5,900
Effect of foreign currency translation	(7,794)	5,972	-	-	-	-	-	-	-	-	(7,794)	5,972
Other changes	1,526	4,496	-	-	-	-	-	-	-	-	1,526	4,496
Fair value of plan assets December 31	**202,216**	**218,416**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**202,216**	**218,416**
Surplus or (deficit) of the defined benefit plan	**(700,684)**	**(529,056)**	**(165,241)**	**(127,547)**	**(42,494)**	**(31,779)**	**(1,338)**	**(1,174)**	**(38,338)**	**(45,353)**	**(948,095)**	**(734,909)**
Net defined benefit plan asset or (liability)	**(700,684)**	**(529,056)**	**(165,241)**	**(127,547)**	**(42,494)**	**(31,779)**	**(1,338)**	**(1,174)**	**(38,338)**	**(45,353)**	**(948,095)**	**(734,909)**
Total defined benefit plan assets	**(700,684)**	**(529,056)**	**(165,241)**	**(127,547)**	**(42,494)**	**(31,779)**	**(1,338)**	**(1,174)**	**(38,338)**	**(45,353)**	**(948,095)**	**(734,909)**

[1] *It includes the retirement pension plans run by the companies of the EPM Group in accordance with the regulations of each country. Likewise, contributions to social security and funeral aid.*

[2] *Includes retroactive severance plans, consisting of a recognition of an average monthly salary multiplied by the years of service, payable through advances and at the time of termination of the contract. The source of the plan is the "Sixth Law of 1945 which enacts certain provisions on labour agreements, professional associations, collective disputes and special labour jurisdiction" and 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 services is a plan that consists of a total or partial discount on the monthly amount to be paid for the public energy service, and in some cases on the aqueduct and telephone service, 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 length of service at the date of retirement was at least 15 years of employment. The benefit for public services is covered by the collective bargaining agreements in force in these companies.*

[4] *It correspond to the educational aid granted by law to the children of pensioners who are financially dependent on them, up to the age of 25.*

No risks have been identified for the EPM Group generated by the post-employment benefit plans, nor modifications, reductions or settlements that impact the present value of the obligation.

The weighted average duration in years of defined benefit plan obligations as of the cut-off date is presented below:

Benefit	2023		2022	
	From	To	From	To
Pension	6	16	6	8
Retroactive severance	3	5	3	5
Public services aid	-	10	6	8
Education	2	2	2	2
Other defined benefit plans	1	8	1	6

The Group has no restrictions on the current realization of the defined benefit plan surplus.

The Group did not make any defined benefit contributions during the period.

The fair value of plan assets is composed as follows:

Assets that support the plan	2023		2022	
	% Participation	Fair value	% Participation	Fair value
Cash and cash equivalents	5.20%	10,928	4.18%	9,356
Equity instruments				
Government Sector	7.43%	15,624	48.73%	116,549
Total equity instruments	7%	15,624	6%	15,218
Debt instruments				
AAA	47.98%	100,866	48.73%	116,549
AA	4.88%	10,254	6.36%	15,218
A	0.00%	-	3.69%	8,828
BB and less	0.00%	-	0.40%	964
No rating	13.67%	28,736	20.89%	49,948
Investment funds	6.12%	12,873	6.32%	15,122
Total debt instruments	72.65%	152,729	86.40%	206,629
Other assets	14.72%	30,943	3.33%	7,954
Total Assets that support the plan	100%	210,224	100%	239,157

- Amounts stated in millions of Colombian pesos -

The main actuarial assumptions used to determine the defined benefit plan obligations are as follows:

Assumptions	Colombia				Panama			
	2023		2022		2023		2022	
	From	To	From	To	From	To	From	To
Discount rate (%)	10.20%	13.60%	8.10%	13.60%			5.52%	5.52%
Annual Salary Increase Rate (%)	4.50%	6.50%	3.50%	6.50%	5.00%	5.00%	5.00%	5.00%
Actual rate of return of the assets in the plan	21.95%	21.95%	2.59%	2.59%			5.00%	5.00%
Future rate of increase in annual pension	4.50%	4.57%	4.50%	4.50%			-	-
Annual inflation rate (%)	4.50%	4.50%	4.50%	4.50%	1.92%	1.92%	0.76%	0.76%
Survival tables	Valid Rentlists Table 2008				Table of mortality of the urban population Republic of Panama 2010-2015			

Assumptions	Guatemala				Mexico			
	2023		2022		2023		2022	
	From	To	From	To	From	To	From	To
Discount rate (%)	6.00%	6.00%	4.90%	4.90%	9.30%	9.30%	9.8%	9.8%
Annual Salary Increase Rate (%)	5.00%	5.00%	4.50%	4.50%	8.00%	8.00%	8.0%	8.0%
Future rate of increase in annual pension	-	-	-	-	-	-	-	-
Annual inflation rate (%)	4.50%	4.50%	4.00%	4.00%	22.00%	22.00%	3.75%	3.75%
Survival tables	Table RP-2000							

Assumptions	El Salvador				Chile			
	2023		2022		2023		2022	
	From	To	From	To	From	To	From	To
Discount rate (%)	5.20%	5.20%	4.95%	4.95%			1.68%	1.68%
Annual Salary Increase Rate (%)	2.00%	2.00%	2.00%	2.00%	12.80%	12.80%	0.76%	0.76%
Annual inflation rate (%)	6.20%	6.20%	1.00%	1.00%	3.90%	3.90%	2.75%	0.33%
Survival tables	Table CSO-80				Table CB H 2014 and RV M 2014			

The following table shows the effect of a plus 1 % and a minus 1 % change in the salary increase, in the discount rate and in the increase in the benefit on the defined benefit post-employment benefit obligation:

Assumptions	Increase in discount rate by +1%	Decrease in discount rate by -1%	Increase in salary increase by +1%	Decrease in salary increase by -1%	Increase in profit by +1%	Decrease in profit increase by -1%
Pensions	669,955	770,389	-	-	90,747	90,747
Retroactive severance	153,855	162,403	166,202	150,131	-	-
Public services	22,461	25,987	-	-	26,219	26,219
Other post-employment benefits	4,476	4,967	-	-	4,770	4,770
Total post-employment benefits	**850,747**	**963,746**	**166,202**	**150,131**	**121,736**	**121,736**

Amounts stated in millions of Colombian pesos -

The methods and assumptions used to prepare the sensitivity analyses of the present value of the obligations (DBO) are the same as for the actuarial calculation as of December 31, 2023 and 2022: Projected Unit Credit (PUC). There are no limitations to the sensitivity. There have been no changes in the methods and assumptions used to prepare the sensitivity analysis from the previous period to the current period.

Calculation of pension liabilities in accordance with current tax requirements in Colombia

Resolution 037 of 2017 issued by the General Accounting Office of the Nation established the obligation to disclose the calculation of pension liabilities in accordance with the parameters established in Decree 1625 of 2016 and Decree 1833 for pension commutations; therefore, the figures presented below do not correspond to the requirements of IFRS.

Pension liabilities

The pension actuarial calculation was prepared with the following technical bases:

Actuarial assumptions - Pension obligation	2023	2022
Real technical interest rate	7.00%	7.73%
Salary increase rate	7.90%	4.36%
Pension increase rate	7.65%	4.11%
Mortality table	Valid rentiers table 2008	

The following table details the calculation of the pension liability with the above parameters

Concept	2023		2022	
	Number of people	Obligation Value	Number of people	Obligation Value
Staff retired entirely by EPM Group companies	922	276,327	933	240,189
Staff retired with shared pension with Colpensions	1,363	266,223	1,831	248,400
Staff Benefit shared with Colpensions	564	102,854	935	120,428
Staff retired with pension shared with other entities	425	33,602	633	64,210
Total	**3,274**	**679,006**	**4,332**	**673,227**

Amounts stated in millions of Colombian pesos -

The pension bonds related to pension obligations are detailed below:

Concept	2023		2022	
	Number of people	Reserve value	Number of people	Reserve value
Type A Pensional Bonus Modality 1	225	3,788	230	3,388
Type A penalty bond Modality 2	4,113	222,968	4,130	20,903
Type B Pensional Bond	3,125	440,796	2,993	78,110
Type T Pensional Bonus	5	503	5	390
Other - Contributions Law 549	-	-	141	11,097
Total	**7,468**	**668,055**	**7,499**	**113,888**

Amounts stated in millions of Colombian pesos -

The differences between pension liabilities calculated under IFRS as adopted in Colombia and tax pension liabilities are shown below:

Concept	2023	2022
Pension liabilities under IFRS	593,815	468,267
Fiscal pension liabilities	1,187,266	971,096
Difference	**(593,451)**	**(502,829)**

Amounts stated in millions of Colombian pesos -

Pension commutation liabilities

The actuarial calculation of pension commutation was prepared on the following technical basis:

Actuarial assumptions - Pensionary commutation	2023	2022
Real technical interest rate	4.80%	4.80%
Rate of salary increase	8.70%	3.98%
Pension increase rate	8.70%	3.98%
Mortality table	RV08 (Valid Rentlists)	

The following table shows the calculation of the pension commutation with the above parameters:

Concept	2023		2022	
	Number of people	Obligation Value	Number of people	Obligation Value
Staff retired entirely by EPM Group companies	70	19,045	74	17,728
Staff retired with shared pension with Colpensions	337	53,306	338	47,391
Staff Benefit shared with Colpensions	63	7,801	62	6,419
Staff retired with pension shared with other entities	5	373	10	1,054
Total	**475**	**80,525**	**484**	**72,592**

- Amounts stated in millions of Colombian pesos -

The pension bonds related to the pension commutation liability are detailed:

Concept	2023		2022	
	Number of people	Reserve value	Number of people	Reserve value
Type A Pensional Bonus Modality 1	11	43	11	39
Type A penalty bond Modality 2	220	13,041	232	12,654
Type B Pensional Bond	193	25,674	198	23,914
Type T Pensional Bonus	-	-	3	-
Other -Include type of pension bonus-	1	59	1	52
Total	**425**	**38,817**	**445**	**36,659**

Amounts stated in millions of Colombian pesos -

The differences between the pension commutation liability calculated under IFRS as adopted in Colombia and the fiscal pension commutation liability are shown below:

	2023	2022
Pension commutation liabilities under IFRS	74,430	72,592
Fiscal pensions commutation liability	119,345	109,252
Difference	**(44,915)**	**(36,660)**

Amounts stated in millions of Colombian pesos -

25.1.2 Defined Contribution Plans

The Group made contributions to defined contribution plans recognized in profit or loss for the period as an expense of $42,562 (2022: $35,620), as a cost of $80,439 (2022: $68,421) for a total of $123,001 (2022: $104,041).

25.2. Long-term employee benefits

Long-term benefits	Seniority Premium [1]		Total	
	2023	2022	2023	2022
Present value of obligations for other long-term benefits				
Initial Balance	91,465	98,509	91,465	98,509
Cost of the present service	8,183	9,019	8,183	9,019
Income or (expenses) by interest	11,084	7,506	11,084	7,506

Actuarial profits or losses from changes in:				
Assumptions by experience	6,456	10,108	6,456	10,108
Demographic assumptions	(650)	(282)	(650)	(282)
Financial assumptions	18,955	(12,873)	18,955	(12,873)
Past service cost	(1,215)	(2,060)	(1,215)	(2,060)
Foreign currency conversion effect	(701)	560	(701)	560
Payments made by the plan	(18,598)	(19,022)	(18,598)	(19,022)
Changes due to the limit of an assest	53	-	53	-
Present value of obligations as at 31 December	**115,031**	**91,465**	**115,031**	**91,465**
Surplus or (deficit) for long-term benefits	**(115,031)**	**(91,465)**	**(115,031)**	**(91,465)**
Long-term profit net asset or (liability)	**(115,031)**	**(91,465)**	**(115,031)**	**(91,465)**

Amounts stated in millions of Colombian pesos -

[1] *It is granted based on the employee's years of service, is recognized and paid in accordance with the terms established in the current collective bargaining agreements of each company or the labor regulations of the country.*

The Group has not identified any risks generated by the long-term benefit plans, nor modifications, reductions or liquidations that impact the present value of the obligation.

The weighted average duration in years of long-term benefit plan obligations as of the cut-off date is presented below:

Benefit	2023		2022	
	From	To	From	To
Seniority Premium	3	3.0	3.3	3.0
Other long-term benefits	6	6	6	6

The group does not expect to make any contributions to the plan for the next year.

The main actuarial assumptions used to determine liabilities for long-term employee benefit plans are as follows:

Assumptions	Colombia		Guatemala	
	2023	2022	2023	2022
Discount rate (%)	10.47%	13.50%	7.80%	5.00%
Annual Salary Increase Rate (%)	5.54%	5.17%	5.00%	4.50%
Annual inflation rate (%)	5.31%	4.50%	4.50%	4.00%
Survival tables	Valid Rentlists Table 2008		Table RP-2000	

The following table shows the effect of a plus 1 % and a minus 1 % change in the salary increase, in the discount rate and in the increase in the benefit on the long-term benefit obligation:

Assumptions	Increase in discount rate by +1%	Decrease in discount rate by -1%	Increase in salary increase by +1%	Decrease in salary increase by -1%
Seniority Premium	88,217	97,867	98,183	87,868
Other long-term benefits	5,572	6,233	6,221	5,579
Total long-term benefits	**93,789**	**104,100**	**104,404**	**93,447**

Amounts stated in millions of Colombian pesos -

The methods and assumptions used to prepare the sensitivity analysis of the present value of the obligations (DBO) were the same as for the actuarial calculation as of December 31, 2023, and 2022: Projected Unit Credit (PUC). The sensitivity does not present any limitations or changes in the methods and assumptions used to prepare the analysis for the current period.

25.3. Short-term employee benefits

The composition of short-term benefits is as follows:

Short-term benefits	2023	2022
Payroll payable	13,294	13,601
Severances	90,910	72,465
Interests on severances	10,882	8,875
Holidays	54,620	47,855
Vacation bonus	66,316	57,084
service premium	6,838	960
Holidays (Christmas) bonus	248	582
Bonuses	16,579	18,378
Other bonuses, salaries and legal benefits	38,036	44,247
Total short-term benefits	**297,724**	**264,047**

Amounts stated in millions of Colombian pesos -

Note 26.

Taxes, contributions, and fees payable

The detail of taxes, contributions and fees, other than income tax, is as follows:

Taxes, contributions, and fees	2023	2022
Withholding tax (1)	224,839	199,535
Industry and commerce tax (2)	133,231	105,835
Value Added Tax	79,196	73,247
Fees	50,381	40,923
Other national taxes	9,571	16,512
Contributions	5,189	28,262
Customs tax and surcharges	5,086	6,964
Other municipal taxes	3,224	29,635
Taxes, contributions and fees abroad	951	8,822
Unified property tax	889	766
Royalties and monetary compensation	871	752
National consumption tax	7	6
Motor vehicle tax	-	12
Penalties	-	9
Total taxes, fees and contributions	**513,435**	**511,280**

Amounts stated in millions of Colombian pesos -

[1] *The value caused in December 2022 was lower than in December 2023, due to the lower amount to be paid for the concept of self-withholdings.*

[2] *The increase in the taxable base for the Industry and Commerce Tax is due to higher revenues in the 2023 period.*

[3] *The taxable base for the tax by fees increased by the value of the payments paid to the municipalities for the concept of energy generation as established by Law 99.*

Note 27.

Provisions, contingent assets and liabilities

27.1. The reconciliation of provisions is as follows:

Concept	Dismantling or environmental restoration [1]	Litigation [2]	Contingent - business combinations	Guarantees [3]	Other provisions	Total
Initial balance	259,373	653,831	164,112	106,053	640,030	1,823,399
Additions	2,859	844,663	-	-	192,580	1,040,103
Capitalizable Additions	7,883	-	-	-	-	7,883
Uses (-)	(42,525)	(129,486)	(551)	(102,607)	(150,048)	(425,218)
Reversals, Unused amounts (-)	(5,950)	(49,420)	(1,323)	(9,566)	(17,473)	(83,732)
Reversals, Unused amounts (-) capitalizable	(388)	-	-	-	-	(388)
Adjustment for changes in estimates	6,242	33,506	3,402	-	66,572	109,722
Adjustment for changes in estimates capitalizable	227,058	-	-	-	-	227,058
Exchange rate difference	-	(1,200)	(31,260)	-	-	(32,460)
Financial update	28,156	67,920	6,764	6,120	5,430	114,389
Foreign currency conversion effect	(794)	(6,344)	-	-	(119,077)	(126,215)
Other change	-	(212)	-	-	-	(212)
Final balance	**481,915**	**1,413,258**	**141,143**	**-**	**618,014**	**2,654,330**
Non-current	285,842	1,305,754	140,987	-	463,348	2,195,931
Current	196,073	107,504	156	-	154,666	458,399
Total	**481,915**	**1,413,258**	**141,143**	**-**	**618,014**	**2,654,330**

Amounts stated in millions of Colombian pesos-

As of December 31, 2023, the Group's significant provisions were:

[1] *The increase in the provision for dismantling is an adjustment in the social provision of Ituango and in the forest compensations for the environmental effects of Hidroituango (paragraph 27.1.1.)*

[2] *The increase in the provision of litigation and lawsuits is due to the arbitration award against EPM for the penalty clauses of enforcement for non-compliance with milestones in Hidroituango. (Paragraph 27.1.2).*

[3] *The decrease in the guarantee provision is due to the payments made to XM for the guarantee of arrears in Hidroituango (Numeral 27.1.4)*

27.1.1. Decommissioning or restoration

The Group is obliged to incur costs of dismantling or restoring its facilities and assets in the following events:

- Removal of transformers containing PCBs (polychlorinated biphenyls). The Group has committed to the dismantling of these assets from 2008 to 2026, under Resolution 222 of December 15, 2011 of the Ministry of Environment and Sustainable Development and the Stockholm Convention of May 22, 2008. Applies in Colombia, Panama and El Salvador. The provision is recognized at the present value of the expected costs to pay off 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, 2023, the national subsidiaries that contribute to this item are: ESSA with $222, CENS with $397, EDEQ with $140, EPM with $113, CHEC with $80 and Afinia with $55 and the international ones that contribute are: ENSA with $537.
- In the sanitation service in Colombia, due to the disposal of solid waste in the subsidiary EMVARIAS and it is a land on which cells or vessels are built for the deposit of garbage, being necessary to restore it through a series of activities aimed at carrying out the closure, closure and post-closure of it. The obligation begins from the moment in which the landfill is in optimal conditions for the performance of the final disposal activity and goes until the regulatory environmental entity, by resolution, decrees the termination of the closure, closure and post-closure stage. This obligation is defined in the RAS 2000 (Technical Regulations for Drinking Water and Basic Sanitation), which establishes the basic criteria and minimum environmental requirements that sanitation systems must meet in order to mitigate and minimize the impacts that occur in the activities of design, construction, commissioning, operation, maintenance, decommissioning, completion and closure. As of December 31, 2023, payments of $1,640 have been generated and the balance of the provision ended at $25,102.
- Dismantling 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, which through CREG resolution 136 of 2020, published in the Official Gazette of July 15, 2020, allows the restart of operations until 2023, which led to the activation of the provision worth $9,640 million, for a ending balance as of December 31, 2023 of $943.

- Dismantling of the Hidroituango central camp:

  With the entry into operation of the two power generating units of the Hidroituango power plant, the dismantling of the Tacuí – Cuní camp, which was initially conceived and dimensioned for the construction of the Ituango Hydroelectric Project, is planned. Once the construction stage is over, the operation of the project begins and the sizing for the construction stage is much greater than that required for the operation stage. For this reason, it is estimated that the dismantling will begin in 2027, which is the probable date of the completion of the construction and delivery to operation of the 8 generation units. The estimated cost for the dismantling of the camps was assessed according to the areas that are not required for the operation of the plant and according to the plan and dimensioning of the facilities. The balance of the provision as of December 31, 2023 amounted to $18,893.

- 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 exploitation; obligations that are formalized, through the 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 project's biotic environmental offsets extends beyond the time in which the asset begins to operate technically, making it necessary to implement the figure of provision with the aim of ensuring that these expenditures remain as the greatest value of the construction in progress. The Group has committed to compensate for the loss of biodiversity, subtraction and closures from 2016 to 2019 according to the resolutions: Res. 1313/2013 ANLA, Res. 519/2014 ANLA, Res LA. 0882/04/08/2014 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 04/21/2014 CVS, among others. The provision is recognized at the present value of the expected costs to pay off 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, 2023, the main subsidiaries contributing to this concept are: EPM with $7,722, ESSA with $4,918 and CENS with $2,951.

- Environmental effects of the Hidroituango power plant: with the entry into operation of the two power generating units of the Hidroituango power plant, obligations arise for the use of the natural vegetation cover that was found in the areas where different infrastructures were implemented for the project (reservoir, camps, roads, workshops, storage areas, etc.). among others), in this sense, according to its environmental license, the project must make forest compensations in a ratio of 1 to 1 in the intervened areas of tropical humid forest and from 1 to 5 in the areas of tropical dry forest. In general, these compensation obligations are associated with the WFP programs for the biotic environment related to the management and conservation of vegetation cover, the subprogram for the restoration of forest cover, the subprogram for the management and protection of fish and fisheries resources in the lower and middle basins of the Cauca River, as well as the with the execution of these activities, attention is given to the obligations associated with requests for the exploitation of species with regional restriction by the competent authorities (Coranquia and Corpourabá). The balance of the provision as of December 31, 2023 amounted to $167,670.

- Environmental compensation and forced investment of 1 %: Law 99 of 1993 established the mandatory nature of environmental licensing for the development of any activity that may cause serious deterioration to renewable natural resources or the environment or introduce considerable or notorious modifications to the landscape and depending on the type of activity, the size and location of the project. and assigned the competencies 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 pending investments as of May 25, 2019 may benefit from the percentage increase in the value of the liquidation base of the forced investment of no less than 1 %, according to the year of commencement of activities authorized in the environmental license and defined the requirements and procedures to update the pending investments and new terms of execution subject to ANLA approval.

As of December 31, 2023, EPM Group has obligations of this type amounting to $47,274 related to the use of water taken directly from natural sources, in the projects carried out at: the Hidroituango, Porce III and Porce II

power plants. In accordance with the law, the executed values of 1 % are: Hidroituango power plant for $44,490 and Porce III for $2,785.

Additionally, as of December 31, 2023, EPM includes a provision of $38,656 for environmental contingency, established by the specific action plan for the recovery of the parties affected by the events of the plugging of the Cauca River diversion tunnel that the Hidroituango plant had on April 28, 2018; by the closure of floodgates in 2019 that decreased the flow of the river downstream of the project; and by the events that may be caused by the technical milestones, pending to be achieved typical of the contingency, as well as of the execution of the project itself. During 2023, the provision was adjusted by $10,832 for financial expense and payments amounting to $28,373 have been made. The balance of the provision as of December 31, 2023 amounted to $38,656.

The specific action plan for recovery should consider three framework programmes:

a. Recovery of affected swamps.

b. Recovery of affected fish fauna.

c. Restoration of aquatic habitats located in the affected area

These three programs correspond to the environmental component as a response to the identification of the effects caused, as well as discretionary actions. Also included are social programs, economic activities, infrastructure, risk management, among others.

The different actions are planned to be carried out between the municipalities of Valdivia and Nechí, however, if affectations are identified in the municipalities that are part of La Mojana, they will also be the object of the intervention.

In the EPM Group, with the entry into operation of the two power generating units of the Hidroituango power plant, the provisions of the following were recognized:

Monitoring: obligation originated by the monitoring and follow-up plan that is part of the activities contemplated in the project's environmental license, generally these monitorings correspond to the follow-up that the project must carry out to the different physical, biotic, and socioeconomic variables that are addressed with the environmental management measures contemplated in the project's Environmental Management Plan

(PMA). and their basic purpose is to evaluate over time the evolution of these variables in order to identify their behavior and response to the appearance of the impacts caused by the development of the project and the application of the management measures contemplated in the MAP. The balance of the provision as of December 31, 2023 amounted to $43,964.

Mandatory social commitments: obligations related to the execution of activities related to the agreements with the Nutabe indigenous community of Orobajo, improvement of living conditions, restitution of social or community infrastructure, and compensation for loss of housing or economic activities of families and communities that were impacted by the construction and/or operation of the Ituango project. These obligations are contemplated in WFP programs and projects (social component), which include, among others, the program for the comprehensive restitution of living conditions, the project for the restitution of community infrastructure, the attention to commitments associated with the agreements with the Nutabe indigenous community, and the other programs for the management of the socio-economic environment contemplated in the project's environmental license. The balance of the provision as of December 31, 2023 amounted to $67,773.

27.1.2. Litigation

This provision covers estimated probable losses related to labor, administrative, civil and tax (administrative and governmental) litigation arising from the operation of the Group's companies. The main assumptions considered in the calculation of the provision are: Average CPI to actual data in previous years and projected data in future years, discount rate calculated with reference to market yields of bonds issued by the National Government, estimated value to be paid, start date and estimated date of payment, for those lawsuits classified as probable. To date, there is no evidence of future events that could affect the calculation of the provision.

In the Group companies operating in Colombia, in order to reduce the uncertainty conditions that may arise with respect to the estimated date

of payment and the estimated value payable of a lawsuit classified as probable, there are business rules based on statistical studies with which the average duration of the processes per action was obtained and also the application of the jurisprudence to the maximum ceilings that it defines for the value of non-pecuniary or immaterial claims when these exceed their amount, as described below:

Average duration of proceedings per action

Administrative and tax

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 easement	4
Nullification of administrative acts	5
Nullification and reestablishment of rights	10
Nullification and reestablishment of labor rights	11
Ordinary	7
Ordinary of Membership	5
Accusatorial Criminal (Law 906 of 2004)	4
Division's lawsuits	4
Protection of consumer rights	6
Police Grievances	3
Right to Reclaim	7
Direct compensation	12
Oral	5

Labor proceedings

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 Health-Pension Contributions	4

Application of jurisprudence

Typology: The amounts of the claims for compensation for non-pecuniary damages shall be recorded according to the following typology:

Perjuicio moral.

- Moral prejudice.
- Damage to health (physiological or biological damage), resulting from bodily or psychophysical injury.
- Damage to relationship life.
- Damage to constitutional and conventional assets.

The amounts of other non-pecuniary claims not recognized by jurisprudence will not be recorded, unless it can be inferred from the claim that, despite being denominated otherwise, they correspond to one of the admitted typologies. Claims for non-pecuniary compensation for damage to property shall not be recorded either.

Quantification: The amount of non-pecuniary claims shall be recorded uniformly as follows, regardless of their typology:

Direct victim Compensation	100 Monthly Minimum Legal Wage Enforced (SMMLV)
Indirect victim compensation	50 Monthly Minimum Legal Wage Enforced (SMMLV)

- **For subsidiaries in Chile:** with respect to the probable date of payment of the lawsuits, the type of process, previous cases, and the progress of the procedural stages of each case are taken into

consideration, which can be very specific and varied depending on the subject matter. In this regard, labor proceedings, being oral and having only two hearings, have a maximum duration of six months, except in specific cases where there are problems in the notification of the claim, or the hearings are suspended. In civil lawsuits, given that they are long processes of long knowledge and written processing, they can last at least two years, so the estimated time in the lawsuits currently being processed by the subsidiary Aguas de Antofagasta S.A., considering its state of progress, should be until 2023.

Quantification: to determine the amount of the judgments, in principle, the amount of the plaintiff's claim is considered, since jurisprudence cannot be applied in this sense, and the amount will vary depending on the Court and the cause of action. Additionally, in civil lawsuits, the amount of the compensation will depend on the court that dictates it, since in Chile there is no precedent system. What a civil judge cannot do, and even less the appellate and supreme court, is to award higher amounts to the claims.

- **For subsidiaries in Panama:** regarding the estimated payment date, each case is evaluated individually with external legal counsel, taking into consideration the average duration of similar processes.

Quantification: The estimated amount to be paid in a lawsuit is determined based on the amount of the plaintiff's claim and an analysis of the specific condition that motivates the lawsuit in order to determine the recognition of a possible damage. For this purpose, we rely on the assessment of external legal advisors of each company and in certain cases with the support of insurance advisors in case an actuarial valuation is required.

- **For Subsidiaries in El Salvador:** the estimated date of payment for administrative or judicial processes is estimated based on the average duration of the processing of similar processes, obtained from statistical data over the 20 years of operation of the subsidiaries.

Quantification: El The estimated amount payable in litigation is determined based on the amount of the initial claim filed against the company.

The following are the recognized litigations:

Company	Third party	Pretension	Value
EPM	Hidroeléctrica Ituango S.A.	Declare that between HIDROITUANGO and EPM, there exists a Contract for the financing, construction, assembly, development, commissioning, and operation of the Pescadero Ituango Hydroelectric Project, known as BOOMT, entered into on 2011/03/30, where EPM ITUANGO assigned its contractual position in favor of EPM. In Hidroituango's opinion, EPM failed to meet milestone 7 "Closure of the diversion gates and start of the reservoir filling (...)" initially planned for 2018/07/01, milestone 8 "Commencement of commercial operation of unit 4" initially planned for 2018/11/28, and milestone 9 "Commencement of Commercial Operation of Unit 1" initially planned for 2019/08/27. As a consequence of the above, Hidroituango requested that EPM be ordered to pay the "Penalty Clauses for Failure to Meet Milestones" up to the value of the "maximum financial liability" for US$450 million, and the recognition of the remuneration agreed upon in the contract for the plant not having commenced operation on the scheduled dates.	781,978
	Maikol Arenales Chaves	To declare the defendants administratively liable, as the cause of the unlawful damage for having destroyed the fishing resource of the Ciénagas de Montecristo complex, which is due to the construction of the IHP. Note: By order of 16 November 2021, 1223 persons were accepted as members of the group	330,425
	Oscar Elias Arboleda Lopera	It includes 173 plaintiffs who worked for EADE; and, they state that in the dissolution and liquidation of said company there was an employer substitution with EPM, which obliges it to all labor debts.	46,894
	Roger Alberto Gil Barragán	To recognize, by way of compensation, for each of the members of the "ASOBAPEBEL" group, that there are one hundred and ninety-three (193) for the unlawful damage caused, the moral and material damage, and the violation of fundamental rights such as a dignified life, a minimum of life, decent housing, work, food security, and the destruction of their source of subsistence, the displacement of their territory and the unlawful psychological and physical transformation of their lives, having as an imputation the exceptional risk due to the emergency that caused the damage to the Cauca River.	22,347
	Luis Fernando Anchico Indaburo	To declare EPM administratively responsible, as the cause of the unlawful damage for 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 judgment is issued, This is referred to by the defendants as consolidated loss of profits.	22,332
	Other Labors	125 processes with an average of $110 and an amount of less than $1,100.	21,505
	Santiago Andrés Ortiz Mora	To declare EPM responsible for the damage caused, the moral and material damage and the violation of fundamental rights, caused to the members of the "SAN ROQUE" group, by the destruction of their source of subsistence, the displacement of their territory and the psychological and physical transformation of their lives due to the affectation caused by the "Hidroituango" project in April 2018. The amount for each of the 161 members of the group is 100 SMMLV, for a total of $14,132,628,300. A claim for loss of profits in the amount of $1,146,431,034 is claimed.	18,010
	Rodrigo Antonio Muñoz Arenas	To declare the State's responsibility for the deficiencies or omissions incurred by the defendants, by not measuring the danger, threat and damage that would be caused by the indiscriminate felling of trees in the area of influence of the dam, to which the communities attribute the changes in the behavior of the river and the landslides in the area. To order the plaintiffs and the members of the affected group to pay the minimum subsistence not received for the duration of the emergency, $4,307,103,200.00.	14,509
	Javier Maure Rojas	To declare EPM administratively responsible, as the cause of the unlawful damage for having destroyed the fishing resource of the Montecristo swamp complex, which is due to the construction of the PHI (Ituango Hydroelectric Project); that a minimum wage be recognized and paid for each family unit from February 2019 until the judgment is handed down and the recognition of a future loss of earnings that goes from the time of the judgment to the probable period of life of each of the plaintiffs.	14,042
	Other Administrative	29 litigations with an average of $527 and an amount of less than $1,956.	12,717

Company	Third party	Pretension	Value
EPM	Gustavo Jimenez Perez	To declare EPM E.S.P. liable for the unlawful damage caused, the moral and material damage and the violation of fundamental rights caused to the 75 members of the "ASOMIBA" group; for the destruction of their source of subsistence, the displacement of their territory and reparation of the damage; It is requested to pay to the members of the "ASOPEISLA" group, the damages of an immaterial and material nature caused since the beginning of the emergency originated in the "Hidroituango" project, of compensation for each of the members of the "ASOMIBA" group, is set at One Hundred (100 SMLV).	8,986
	Esilda Rosa Romero Aguas	They request that EPM be declared administratively liable as a result of the damage caused to the plaintiffs and that the sum of 80 SMLMV be recognized for each of the plaintiffs in the form of moral damages: 39 in total.	8,301
	Diogenes de Jesús Cossio	For environmental damage, the sum of 50 SMLMV for each of the 41 plaintiffs. It is classified as damage to constitutional and conventional property, in the absence of a category such as the one indicated by the plaintiff. For damage to the family or damage to the life of the relationship 50 SLMV for each of the plaintiffs. For moral damages, the sum of 50 SMLMV for each of the plaintiffs. For consolidated and future loss of profits, the sum of ARS 289,767,141,000, for Mr. FABIO ENRIQUE GOMEZ ATEHORTUA.	7,170
	John Walter Jaramillo	That the plaintiffs be reinstated in the same position or trade or another of the same or higher category that they had been performing, that as a consequence, by way of compensation, all the salaries and legal social benefits not received must be paid, in addition to all the contributions caused in favor of the Comprehensive Social Security System.	5,537
	Municipality of Copacabana	Declare that EPM has partially breached the 8405949 contract and that it is responsible for the economic damages suffered by the Municipality of Copacabana, as the public lighting fee for the industrial and commercial sectors was not collected during the periods of 2007, 2008, 2009, 2010 and part of 2011; Which have been liquidated in the sum of $1,034,385,066 and that must be paid when the order that resolves the present lawsuit becomes enforceable.	3,237
	Humberto Hernando Gómez Franco	To declare EPM administratively and financially liable for the injuries suffered by Mr. HUMBERTO HENANDO GÓMEZ FRANCO, when he was electrocuted by high-voltage cables owned by the defendant entity, on 10/23/2013, at the La Playa farm owned by Mr. Antonio Lopera, located in the La Virgen sector, of the Vereda Hoyorrico, jurisdiction of the Municipality of Santa Rosa de Osos.	2,353
	Francisco Javier Muñoz Usman	The plaintiffs claim to have worked at Empresa Antioqueña de Energía S.A. E.S.P., which was liquidated. That the conciliation agreement signed be declared null and void due to defect in the consent and consequently order the reinstatement of the employment contract, the reinstatement, the payment of all the salaries and benefits not received, in the same way that the social security contributions be cancelled from the moment of dismissal and until the plaintiff is effectively reinstated.	2,187
	Moraine Olave De Larios	Relatives of a former Integral worker who died in Ituango, sue for full compensation for damages, for moral damages caused. Solidarity.	2,038
	Omar Augusto Lugo Hoyos	That the conciliation agreement signed be declared null and void due to defect in the consent and consequently order the reinstatement of the employment contract, the reinstatement, the payment of all the salaries and benefits not received, in the same way that the social security contributions be cancelled from the moment of dismissal and until the plaintiff is effectively reinstated.	1,373
	Jaime De Jesus Marin Hernandez	Employer's fault.	1,141
	CORANTIOQUIA - Regional Autonomous Corporation of Central Antioquia	That as a result of the declaration of nullity of Resolution No. 130 TH1106 - 8318, of June 7, 2011, CORANTIOQUIA repays the fee for the use of water collected from the Riogrande and that was collected with invoice No. TH1195 of April 11, 2011, corresponding to the period 2010, as established by Decree 155 of 2004, and pay EPM back what it overpaid.	1,108
	Luis Bernando Mora Meneses	EAS Re-Entry	1,097

Company	Third party	Pretension	Value
EPM	Aburrá Valley Metropolitan Area	To declare the nullity of the Metropolitan Resolutions: No. S.A. 001085 of 2012/07/05 "For the collection of remuneration rate - Connected Sector"; and, the No S.A. 000189 of 2014/02/17 "That resolves an Appeal for Reconsideration" both issued by the Environmental Deputy Director of the Metropolitan Area of the Aburrá Valley; and, to declare that EPM E.S.P. are not obliged to pay the AREA a sum whose refund must be made in an indexed manner from the time of making the payment and until the date on which effective compliance with the judgment with which the controversy is put to an end is verified.	1,073
	Various Prosecutors	11 processes with an average of $196 and an amount of less than $5,253.	258
Total EPM			**1,330,618**
CHEC	Cartones y Papeles del Risaralda S.A. and Others	Reparation and payment of moral and material damages	5,207
	Jose Aníbal Acevedo, Julián Andrés Galvez Henao, Germán Alberto Morales Flórez, Juan Pablo Orozco and Others	Reinstatement to office, repayment of social benefits and moratorium penalties.	2,690
	Leidy Marcela Jimenez Jaramillo	Loss of profits / Material-moral damage	2,565
	Deibi Bibiana Siagama Arce	Moral and pecuniary damages are claimed for the electrical accident that caused death.	2,515
	Héctor Giraldo Mesa and other	Employer's fault for accidents at work/solidarity	2,513
	Salomón Galvis Giraldo and Others	Conventional Retirement	1,550
	Hernando de Jesús Ocampo Jiménez and Others	Reality Contract / Pension Contribution	1,340
	José Hernando Anturi Noriega and others	Permanent travel expenses - social security contributions	805
	Nestor Hernández Morales and others	Pension substitution	518
	Luis Alberto Merchan Gómez	Compensation for Consequential Damages	456
	Maria Eugenia Motato Gañan	That they be paid compensation for damages for the death by electrocution of their family member/that they be compensated for the fatal damages received	412
	Carlos Alberto Montoya Gonzalez and Others	Pension resettlement	288
	Frank Estivar Escudero Aristizábal and Others	Payment of severance pay and social benefits	139
	Germán Neira Marín	Resettlement - Readjustment of salaries and social benefits	98
	José Alberto Bedoya Uribe and Others	Recognition 100% allowance 14	39
	Colpensiones	Nullity of administrative act	37
	Rodolfo Gonzalez Pineda and Others	Partial Energy Exemption	16

Company	Third party	Pretension	Value
	Payments made without finishing processes	Payments made without completing processes in different periods	(8)
Total CHEC			**21,180**
CENS	Elsa Reyes de Buitrago and others	Indexation of the first pension allowance, in their capacity as pensioners and/or pension substitute to all the claimants and cancellation of interest to the legal maximum contemplated in Law 100 of 1993 in its article 141.	4,486
	Carlos Omar Rincón Carrillo and other	Recognition and payment of the transport allowance deducted by the contractor, expenses incurred for the maintenance of work tools, social benefits, holidays and moratorium compensation for the payment of the severance payment at the end of the employment contract, in addition to the costs of the process.	2,576
	Other labor proceedings with an amount of less than $150 million	Other labor proceedings (48) with an amount of less than $150 million	2,261
	William Alexis Ramirez	Cease the collection of public lighting to the municipality of Cúcuta, reimbursement of the balances for public lighting to the municipality, payment of contractual and non-contractual damages. Claim: $928,023,004.78 Incentive: 15% of the value recovered by the Municipality.	1,522
	Sara Franco Guerrero and other	Material damage / moral damages / damage to life in relation to	1,431
	Jesús Efraín Ibarra Ochoa	To declare the pension compatibility between the retirement pension recognised by CENS and the old-age pension recognised by the ISS pensions, now Colpensiones.	1,404
	Luis Héctor Rivero Rey	To declare the Company CENS S.A. E.S.P liable for the damages caused to the plaintiffs due to the failure in the service that generated a fire in the commercial premises and that as consequence moral damages are recognized, Consequential damages for the loss of premiums, Good Will, loss of profits.	837
	Ermelina Pérez de Rivera and other	That it is declared that CENS has the obligation to continue paying the full amount of health contributions and to continue paying 12% of the pension allowance; Likewise, to reimburse the contributions not paid since the date of the shareability of the pension, indexing them, plus default interest.	833
	Luis Alberto Peña Villamizar	Claim for compliance with the judgment issued within the ordinary labor process 200-097.	767
	Blanca Doris Pacheco Bayona and Others	Declare the defendants administratively and civilly jointly and severally liable and order the payment of subjective moral damages, compensation for pecuniary damages as well as future loss of earnings.	669
	Carmen Rosa Galvis Urbina	To declare CENS and Ingeniería y Servicios Unión Temporal liable for the damages caused to the applicant as a result of the death of Freddy Díaz. Moral damages. Consolidated and future material losses.	635
	José Herlin Velandia Rojas and others	Recognize the conventional benefits of articles 20, 21, 26, 36 in the same way as workers who joined the company as workers before February 1, 2004, the moratorium compensation of article 99 of Law 50 of 1990, costs, indexation and extra and ultra petita.	476
	Richard Arcenio Rodríguez Camargo and other	That it be declared that the time of service as a SENA apprentice in CENS of the plaintiffs will be taken into account for all purposes with the date on which they began as contract workers for an indefinite term, in accordance with the provisions of the collective bargaining agreement, and that it be declared that the company has failed to fully comply with the postulates provided for in said agreement, and that the plaintiffs be recognized and paid all corresponding labor claims.	463

Company	Third party	Pretension	Value
CENS	Other Tax Processes with Amounts Less Than $250 Million	Other tax proceedings (2) with an amount of less than $250 million.	281
	José Javier Velandia	That CENS and Acomyconta be declared administratively and non-contractually liable for the damages caused by the disqualification of Mr. José Velandia, for loss of earnings, moral damages, in the amount of 1,500,000 from the date of filing of the lawsuit.	223
	Elda Beatriz Villamizar Vivas	That CENS be ordered to cancel the health contributions consisting of 12% of the value of the pension allowance of all the plaintiffs and to repay the pension consisting of the 14 allowances per year, from the time that this 12% has been deducted to date with the inclusion of the percentage factor included in the pension, Likewise, reimburse the health contributions discounted to the plaintiffs for an amount of 12%, in addition to the values corresponding to the pension difference must be recognized and paid indexed and with recognition of interest to the legal maximum.	221
Total CENS			**19,085**
ADASA	Superintendence of Health Services	SISS Sanctioning File - 2024	4,495
	Superintendence of Health Services	SISS Sanctioning File - 2023	3,946
	Superintendence of Health Services	SISS Sanctioning File - 2022	2,674
	Superintendence of Health Services	SISS Sanction File - 2021	1,403
	LASERMED Professional Society	C-3934-2020 Claim for compensation for damages due to flooding in dermatological clinics.	1,302
	Galarce/ Aguas de Antofagasta	Compensation for damage caused to real estate	972
	Municipality of Sierra Gorda	C-2883-2020 Claim for compensation for damages, for settlement in former mayor's building.	607
	Cordero and other / ADASA	O-454/697-2023 -O-5996-2022, O-1307-2023, O-1738-2023, O-1679-2023, O-1415-2023, O-697-2023, O-1440-2023, O-1698-202,	359
	Morales and other / ADASA	7813/21-7/ M-606-2022/ T-87-2023/ Audit report 17879, 11382, 16966, 16894, 13736, 17103	330
	Gonzalez Ayala / ADASA and Others	J-11-2022 Collection of post-mortem indemnities	306
	Archbishopric of Antofagasta	2030-21 Lawsuit for flooding of AS in chapel for two events	294
	Sources/Investments Roma SPA	T-538-2023	40
	Directorate-General for Water	FO-0203-299 Inspection for unauthorized work in riverbed	28
	State Defense Council/ADASA	C-3796-2017 Application of fine for water extraction over the authorized flow of Toconce catchment	3
Total Aguas de Antofagasta S.A. (ADASA)			**16,759**

Company	Third party	Pretension	Value
ESSA	Alba Liliana Ochoa Hernández and other	Declare ESSA administratively responsible for the deaths of individuals and order the payment of moral and material damages.	2,622
	Johana Andrea Granados Olarte and others	Request for payment for moral and material damages, injuries, loss of earnings/consequential damages.	2,261
	Gabriel Antonio Villegas Murcia and others	Orders Electrificadora de Santander S.A. E.S.P. to pay compensation for the applicant's accident at work;	1,334
	Laura Constanza Acevedo Pérez and other	Declare termination of the employment contract in violation of due process	1,213
	María Eugenia Cobos Ramírez	Claim for occupational disease, obligation to pay the claimants the full and ordinary compensation for damages contemplated in Article 216 of the CST.	318
	Alicia Roa de Parra and other	Recognition of pension substitution/disability pension	298
	Payment of processes made in September and December 2023	Payment made in September 2023 for the 19019920 and 16014817 processes, which as of the cut-off date - August 2023 - are in force.	(966)
Total ESSA			**7,080**
AFINIA	SINTRAELECOL Nacional	Nullity of agreements/Payment of permanent union leave for executives	1,368
	Sabel Humberto Puerta Padilla and others	Disability Payment	1,209
	Oscar Puello Andraus and others	Reassessment of benefits	1,138
	Ana María de Jesús Sofan Sánchez and others	Compensation for damages / ATEP	623
	Darío Tordecilla Burgos and others	Death/Personal Injury Indemnity	546
	Berenice Castillo Meza and others	Indemnification of easement / restitution of property	513
	Martha Pareja Medina	Wage equalization	371
	Francisco José Ayola Méndez and Others	Retroactive severance pay/contributions	305
	Luis Ramon Delgado Gonzalez and Others	Reinstatement Action	208
	Carmen Inés Yanes Ortiz	Nullity of affiliation and transfer of pension fund	170
	David Torres Bello	Nullity of the 2003 Agreement	95
	Atenogenes Guerrero Muñoz	Contract Reality	51
Total AFINIA			**6,597**
DELSUR	Ministry of Finance	Income taxes due to audits of previous years	4,295
	SIGET	Claim for Technical Indicator Compensation Refunds	347
	Miscellaneous Clients	Claim for Error in Fare Classification	314
	Mayor's Office of San Salvador and others	Municipal Tax Claims for Pole Installation	147

Company	Third party	Pretension	Value
	Plásticos Divers S.A. de C.V. and others	Claiming Damaged Appliances	27
	San Esteban Catarina Municipal Mayor's Office	Fee for the use of poles and installation of structures	23
Total DELSUR			**5,153**
EMVARIAS	William Alexander Saldarriaga Benjumea	Recognition of non-pecuniary damage	859
	Pedro Nel Rendón Morales and others	Application/ readjustment of conventional pension/ repayment of pension/ compensation in lieu of pension	841
	Eliana de las M. Rojo Echavarría and other	Survivor's Pension / Funeral Assistance	544
	Arley Alonso Vélez Toro and others	Labor liability/ nullity and reinstatement of labor law/ employer's fault	482
	Héctor Fabio Correa and other	Direct Repair	439
	Alexis de Jesús Botero Jiménez	Labor solidarity with JAC Pradera/ Corprodec	222
	Verónica Milena Cardona Acosta and other	Contract Reality	196
Total EMVARIAS			**3,583**
ELEKTRA NORESTE S.A.	Alex Montenegro and other (Urbanización La Toscana)	Civil Procedure - Residents of Tuscany	1,128
	ASEP	Civil Proceeding for Lawsuit Against Res.12581	573
Total ELEKTRA NORESTE S.A.			**1,701**
National Waters	Alberto Guerrero Castro and others	Repayment of wages, benefits and social security and moratorium compensation.	861
	Fray Noe Betancurt Taborda and others	Reinstatement & Workers' Compensation	357
	Natalia López Montoya	Declare the existence of the employment relationship, payment of wages, social benefits, compensation, moratorium sanction of article 65 CST.	184
	Carlos Augusto Castano Roldán	The CCTV contractor caused damage to the plaintiff's taxi. The vehicle was not insured and by virtue of this, it is requested that Aguas Nacionales S.A. E.S.P. respond for the damages caused because on the date on which the events occurred, the vactor type vehicle was carrying out activities for ANEP. A lawsuit is also filed against Seguros Generales Suramericana S.A., and the individuals Edilson Gilberto Mesa Correa and Alejandro Wilson Mateo Rojas Guerrero	58
	Margarita María Arcila López	Recognition of material damage due to the wastewater that entered your home due to the interventions carried out by EPM	42
Total National Waters			**1,502**
Total Recognized Litigation			**1,413,258**

Amounts stated in millions of Colombian pesos-

27.1.3. Contingent consideration - Business combinations

Corresponds to the contingent consideration related to the acquisition of the subsidiaries Espíritu Santo Energy S. de R.L. and Empresas Varias de Medellín S.A. E.S.P. - EMVARIAS. The balance as of December 31, 2023, amounted to $126,243 and $14,900, respectively, for a total provision in the Group of $ 141,143.

The main assumptions considered in the calculation of the contingent consideration related to the acquisition of Espiritu Santo are 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) according to the risk of the liability. To date, there is no evidence of future events that could affect the calculation of the provision.

The main assumptions used on the future events of the contingent consideration related to the EMVARIAS acquisition are: litigation in progress against EMVARIAS at the date of the transaction, definition of the year of materialization of each of the litigations, definition of the value linked to each of the litigations, estimate of the future contingent disbursements linked to the litigations estimated for each year and discount rate (TES fixed rate) to discount the flows of future contingent disbursements. To date, there is no evidence of future events that could affect the calculation of the provision.

27.1.4. Guarantees

For the non-compliance from November 2021 to October 2023, to the transporter Intercolombia for the months following the entry into operation of the connection infrastructure of the Hidroituango power plant. During 2023, the provision was adjusted by $9,566 for recovery income, $6,119 between provision expense and financial expense, and payments amounting to $102,607 have been made. As of December 31, 2023, there is no balance on the guarantees.

27.1.5. Other provisions

The subsidiaries that, in the Group, contribute to the item of 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 family group, such as: employer's policy, multiplier points, Somos program, technical reserve and provision for high cost and catastrophic diseases; b) provisions related to environmental sanctioning procedures and sanctions imposed by the competent authorities; c) provisions related to the Ituango Hydroelectric Power Plant; d) union contribution.

The main assumptions considered in the calculation for each type of provision are as follows:

Employer's policy: Granted to EPM servers as an extralegal benefit. An aggregate deductible was incurred from July 1, 2023 through June 30, 2024 for $4,750. The main assumptions considered in the calculation for each type of provision are: TES discount rate, fixed rate, estimated amount payable and estimated payment date. To date, there has been no evidence of future events that could affect the calculation of the provision. The balance of the provision as of December 31, 2023 amounted to $4,082, which includes payments of $4,280.

Technical reserve: associated to the Medical and Dental Service Unit of EPM and which is stipulated in Article 7 of Decree 2702 of 2014, which has the purpose of maintaining an adequate reserve to guarantee the payment of the provision of health services of the Social Security Health System. This reserve includes both the health services already known by the entity, as well as those occurred, but not yet known, which are part of the mandatory health plan and complementary plans, as well as disabilities due to general illness. The basis for calculating the reserve is that corresponding to all service authorizations issued and which at the cut-off date on which the reserve is to be calculated have not been collected, except those corresponding to authorizations issued more than twelve months ago or those that at least four months after having been issued, there is evidence that they have not been used. The balance of the provision as of December 31, 2023, amounted to $18,047.

High-cost and catastrophic diseases: the basis for calculating this provision is the analysis of the entire population of members and beneficiaries of the EPM Adapted Health Entity (EAS) who suffer from any of the authorized pathologies. The balance of the provision as of March 31, 2023 amounted to $9,618.

For the other provisions described, the main assumptions considered in the measurement are: life expectancy is estimated, estimated payment date, estimated payment value, discount rate calculated with reference to the market yields of the bonds issued by the National Government.

Environmental sanctioning procedures:

As of December 31, 2023, the Group had a balance of $1,408 for environmental sanctions imposed by ANLA on Sociedad Hidroeléctrica Ituango S.A. E.S.P. resolution No. 00826 of April 26, 2022, for the impact on soil, flora and water resource protection assets in the affected areas around the Hidroituango power plant.

Other penalties:

- As of December 31, 2023, the Group has a balance of $82 due to penalties imposed by the Superintendence of Industry and Commerce on EPM for the result of the technical audits of the Natural Gas Vehicle service stations, due to non-conformities found for supply in the chips, in accordance with resolution 40278 issued by the Ministry of Mines and Energy.
- As of December 31, 2023, the Group has a balance of $14,389 in EPM, due to the imposition of easements for the San Lorenzo-Calizas energy project.

Hidroituango Central Contingency:

- In EPM, provision for the contingency of the Hidroituango power plant that caused the flooding of the waters of the Cauca River as a result of the blockage of the project on April 28, 2018. This provision covers the care of those affected in Puerto Valdivia for compensation for consequential damages, loss of earnings, moral damages and reparation to the community infrastructure. During 2023 Adjusted provision by $6,730 between expenditure and financial expenditure and payments amounting to $3,285 have been made. As of December 31, 2023, the balance of the provision amounted to $37,584.

REGIONAL WATERS – Urabá – Colombia: includes provision for environmental sanction issued by Corpourabá for non-compliance with the Sanitation and Discharge Management Plan (PSMV) approved by the municipality of Apartadó. The balance of the provision as of December 31, 2023 amounted to $6,036..

CENS – Norte de Santander – Colombia: includes provision corresponding to expected losses on construction contracts. The balance of the provision as of December 31, 2023 amounted to $23.

ADASA in Chile: includes the provision related to the return of the existing working capital at the end of the term of the concession of the Sanitary Concession Transfer Agreement, signed between the Company and Econssa Chile S.A. The balance of the provision as of December 31, 2023 amounted to $51,368.

ENSA in Panama: includes the provision related to compensation to customers for non-compliance with service quality standards, which are regulated by the National Authority of Public Services of Panama (ASEP). The balance of the provision as of December 31, 2023 amounted to $44,363.

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 December 31, 2023 amounted to $2,722.

DELSUR in El Salvador: includes provision related to customer claims for improper charges, voltage variations, damage to electrical appliances, among others. The balance of the provision as of December 31, 2023 amounted to $3,428.

27.1.6. Estimated payments

The estimate of the dates on which the Group considers that it will have to make payments related to the provisions included in the consolidated statement of financial position as of the cut-off date is as follows:

Estimated payments	Dismantling or environmental restoration	Litigation	Business combination	Guarantees	Other provisions	Total
To One year	201,627	1,017,869	-	-	32,891	1,252,387
To Two-year	77,318	462,937	153	-	21,289	561,696
To Three years	29,484	72,531	-	-	13,881	115,896
To Four or more years	172,727	103,094	145,143	51,771	-	472,735
Total	**481,154**	**1,656,431**	**145,295**	**51,771**	**68,061**	**2,402,713**

Amounts stated in millions of Colombian pesos-

27.2. Insurance technical reserves

The technical reserves associated with insurance contract obligations for property damage, tort liability, infidelity and financial risks, directors and officers, errors and omissions, and cyber risk programs are detailed below:

Insurance technical reserves	2023	2022
Loss reserves payable	104,982	136,500
Reserve for unreported incurred losses	182,799	201,910
Unearned premium reserve	113,518	84,381
Total	**401,299**	**422,791**

Amounts stated in millions of Colombian pesos-

The movement in insurance technical reserves is as follows:

2023	Initial balance	Adjustments in technical reserves	Final balance
Loss reserves payable	136,500	(31,518)	104,982
Reserve for unreported incurred losses	201,910	(19,111)	182,799
Unearned premium reserve	84,381	29,137	113,518
Total	**422,791**	**(21,492)**	**401,299**

Amounts stated in millions of Colombian pesos-

2022	Initial balance	Adjustments in technical reserves	Final balance
Loss reserves payable	116,235	20,265	136,500
Reserve for unreported incurred losses	149,384	52,526	201,910
Unearned premium reserve	60,917	23,464	84,381
Total	**326,536**	**96,255**	**422,791**

Amounts stated in millions of Colombian pesos-

27.3. Liabilities, contingent assets

The composition of contingent liabilities and assets that are not recognized in the financial statements are as follows:

Type of contingency	Contingent liabilities	Contingent assets
Litigation	2,607,345	82,476
Guarantees	289,078	-
Total	2,896,423	82,476

Amounts stated in millions of Colombian pesos

The Group has litigation or proceedings that are currently pending before jurisdictional, administrative and arbitration.

The main litigations pending resolution and judicial and extrajudicial disputes to which the Group is a party as of the cut-off date, as well as disputes, are indicated below:

27.3.1. Contingent liabilities

Company	Third party	Pretension	Value
EPM	Other Administrative	528 Litigations under $2,105 with an average of $537.	536,129
	ISAGEN S.A. E.S.P.	EPM is ordered to compensate ISAGEN for the damages it suffered as a result of the fire and the consequent unavailability of the Guatapé Power Plant.	390,418

Company	Third party	Pretension	Value
EPM	ELECTRICARIBE - Electrificadora del Caribe S.A. E.S.P.	To declare that EPM breached the Acquisition Agreement by refraining from making the adjustment of the Compensatory Payment for Collection foreseen, in favor of ELECTRIFICADORA DEL CARIBE S.A. in liquidation. As a consequence, ELECTRIFICADORA DEL CARIBE - IN LIQUIDATION - is entitled to receive the difference between the Compensatory Payment for Collection at the Closing Date and the Compensatory Payment for Final Collection, which amounts to (COP$43,548,032,051). Declare that EPM, due to its non-compliance, is obliged to pay default interest, between 2020/11/09 or the date determined by the Court and the date of effective payment of the capital sentences.	156,247
	Villa Esperanza Neighborhood	Non-pecuniary damage in the proportion of 100 SMLMV for each of the members of the group, that is, for one thousand two hundred and ninety-six (1296) people, which in total is equivalent to One hundred thirteen thousand seven hundred sixty-three million one hundred thirty-nine thousand two hundred pesos ($113,763,139,200). Material damage as consequential damage for the destruction of each of the homes, calculated in an individual value per dwelling of five million pesos ($5,000,000) which in total indicates 377, for a total of one thousand eight hundred and eighty-five million pesos ($1,885,000,000).	135,504
	CCC Ituango Consortium	To declare that the Claimants constructed the GAD in accordance with the detailed plans and drawings; the Technical Specifications of construction; and, the instructions and requirements of EPM and the Auditor's Office; that the contingency that occurred in the Project from 2018/04/28 is not attributable to a breach of contract by the Claimants; nor for the operation of the works delivered. Requests that EPM be ordered to pay the Consortium $70,000,000,000 as an incentive for the execution of the accelerated works program; and, to reimburse the Claimants for any sums they may be obliged to pay as a result of decisions taken in the compensation actions brought by third parties allegedly affected by the Contingency. A total of 22 claims.	85,354
	Municipality of Bello	That the nullity of Resolutions 2022- RESCRED-77 of November 24, 2022 and 2022 - RESCRED-1 of August 31, 2022 and 2022- RESCRED-100 of December 30, 2022, issued in the coercive collection process promoted by EPM for the collection of the judgment issued by the Council of State, in the process filed 05001233100020110134301 /That the by way of restoration of the right be declared that the order of payment that consists of the return of the sums paid by the Municipality of Bello to EPM on the occasion of the payment agreement conditional on the outcome of the Extraordinary Appeal for review filed against the judgment filed 05001233100020110134301.	79,231
	Aures Bajo S.A.S. E.S.P	First main claim. Declare that EMPRESAS PUBLICAS DE MEDELLIN E.S.P. seriously and repeatedly breached the energy supply contract No. CT - 2015 - 000363, signed with AURES BAJO S.A.S. E.S.P., by failing to pay the full price of the energy supply for the months of September, October, November and December 2022 and January in a timely manner, February and March 2023. That AURES BAJO S.A.S. E.S.P. has the right to have the unilateral termination of the supply contract declared with effect from September 30, 2022. That the defendants be ordered jointly and severally to pay all the damages caused constituting consequential damages and loss of profits, in a minimum value of twenty thousand eight hundred and ninety million eight hundred thirty-three thousand three hundred and thirty-three pesos M.L. ($20,890,833,333	70,201

Company	Third party	Pretension	Value
EPM	Aura De Jesús Salazar Mazo	Collective right of approximately 113 people who each claim $1,133,400 for Consolidated Loss of Profit and $78,753,854 for Future Loss of Profit, for destroying, interrupting and cutting the ancestral mule paths that lead from the Alto Chiri village of the municipality of Briceño to the Valle de Toledo township.	40,764
	Guzmán Bayona E Hijos S EN C	To declare the Mining and Energy Planning Unit (UPME) and Empresas Públicas de Medellín ESP to be held jointly and severally liable for the de facto conduct they incurred in awarding and installing electrical wiring towers in a mining concession area without prior coordination and without any administrative act or judicial resolution for the affectation of the acquired rights.	31,852
	Other Labors	220 processes under $1,298 with an average of $98.	19,398
	Obras Civiles E Inmobiliarias S.A - Oceisa	That it be declared that EPM's failure to comply with the 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 that could not be executed by third parties due to events beyond the control of the parties that prevented the normal execution of the contract.	21,300
	Edwin David Yepes García	EPM and others are declared jointly and severally and administratively liable for all patrimonial and non-patrimonial damages caused to the plaintiffs on the occasion of the overflow of the Cauca River that originated in the Ituango Hydroelectric Project.	2,970
	Dayron Alberto Mejía Zapata	Material Damages: Loss of Profits: calculated at $569,000,923, a sum that must be updated in accordance with the evidence; Moral damages: estimated at 100 s.m.m.l.v.; Damage to health: estimated at 100 s.m.m.l.v.; And, Damages to Constitutional Property: which estimate in the amount of 100 s.m.m.l.v., all of the above for each of the plaintiffs, or failing that, the maximum granted by jurisprudence for similar cases, for a total to date of 4,500 s.m.m.l.v.	14,989
	New Hope Temporary Union	To declare that EPM failed to comply with and unbalanced the contract CT-2013-000641 whose object was the execution of the construction and electromechanical assembly works of the 230KV transmission lines Guavio - Nueva Esperanza and associated reconfigurations paraíso - Nueva Esperanza - circo y paraíso- Nueva esperanza - San Mateo.	14,445
	Iván De Jesús Zapata Zapata	To declare the defendant entities administratively liable for all material and moral damages and damage to the life of the relationship, caused as a result of the execution of an administrative operation that ended with the eviction of the plaintiffs and their families from Finca La Inmaculada, carried out on 2019/10/18. Order the defendants to pay the value of the land, buildings and furnishings as well as the agroforestry valuation of the property; the damages and affliction derived from the suffering caused by the eviction, the violation of human dignity, and seeing how their homes and crops were destroyed. He claims 100 SML for each of the plaintiffs.	11,532
	Abraham de Jesús Barrientos	To declare HIDROELECTRICA ITUANGO and EPM liable for the damages caused; and, in solidarity with IDEA, the MAYOR'S OFFICE OF MEDELLÍN and the DEPARTMENT OF ANTIOQUIA. Loss of earnings: for the loss of income in the displacement due to the emergency caused, damage due to the impossibility of exercising the ancestral economic activity of barequeo, from which the plaintiffs are supported, calculated at 2 SML, for 27 months equivalent to $50,920,072 per person; for emotional affectations, for each, 100 SMLV, with estimate of $87,780,300 for a total of $10,094,734,500.	11,198

Company	Third party	Pretension	Value
EPM	Martha Cecilia Arango Usme	That it be declared that EPM occupied the property or lot of land located in the urban area of Medellín called ASOMADERA owned by the plaintiff without having exhausted any legal process or mechanism against my client; That is, by means of a de facto way, to install electric power towers and electrical conduction lines in this abusive way, leading to irreversible damage and affectations that must be repaired.	10,760
	Darío de Jesús Pérez Piedrahíta	That the defendant be held liable for the violation of the fundamental and collective rights to life, health, family privacy, the enjoyment of a healthy environment, the existence of ecological balance and the rational management and use of natural resources, which led to the causing of the unlawful damage caused to the plaintiffs by the imposition of easements in compliance with an energy generation plan which has caused significant	9,410
	INMEL Ingeniería S.A.S.	To order EPM to compensate the BGA Line Consortium for the damages suffered, in proportion to its participation in the contractor consortium (80%), after the submission of the bid, conclusion, execution and completion of the CT 2016 001695 contract, where unforeseen situations arose not attributable to the contractor that varied the conditions of execution and made compliance more onerous for the contractor; and that the contracting party failed to comply in that it refused to restore the financial or economic equilibrium of the contract.	9,616
	Radian Colombia S.A.S.	To declare that between EPM and Radian Colombia SAS there was work record CT-2015-002500-A1 whose purpose was: "Construction, replacement and maintenance of networks, connections and accessory works of the infrastructure of EPM's aqueduct networks". That EPM failed to comply with clause 1.4 Scope and location of the works, and its obligation to pay the additional administrative and locative resources required for the attention ofe northern zone that was assigned to it after the aforementioned work act.	9,355
	VELPA SOLUCIONES INTEGRALES S.A.	Declare null and void EPM's decision to reject the proposal submitted by the company VELPA SOLUCIONES INTEGRALES S.A., in the context of the procurement process PC-2009-0974 opened by EPM, on the grounds that it is allegedly disqualified from contracting with EPM and order it to pay the amount of the damages suffered as a result of the rejection of the claim in procurement process No. 2009 - 0974 and the sums that it will no longer receive as a result of the impossibility of contracting with the State for a period of 5 years, as a result of the decision adopted by EPM.	7,935
	ELECTRICARIBE - Electrificadora del Caribe S.A. E.S.P.	To declare that the term of the indemnity obligation in charge of ELECTRIFICADORA DEL CARIBE S.A. E.S.P. in liquidation, as Seller provided for in the Share Acquisition Agreement, has already expired and that no Loss has materialized for EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P., CARIBEMAR DE LA COSTA S.A.S. E.S.P., nor for any Indemnifiable Party of the Buyer that gives rise to the release of the Guarantee Resources in favor of EMPRESAS PÚBLICAS DE MEDELLÍN E.S.P. The period during which the Guarantee Resources were to remain deposited in the corresponding Sub-Account of the Trust has already expired.	5,265

Company	Third party	Pretension	Value
EPM	VELPA SOLUCIONES INTEGRALES S.A.	EPM is ordered to pay the amount of damages suffered by VELPA Soluciones as a result of the rejection of its proposal in procurement process No. 2009-0927 and the award 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, given the impossibility of contracting with the State for a period of 5 years, as a result of the decision adopted by EPM.	6,946
	German Alcides Blanco Álvarez	He requests the recognition of 100 SMLMV on the occasion of the diagnosed and firm incapacity for work, of 17.79%, causing a decrease in his work and physical activity, causing a detriment to the patrimony that will enter Mr. Germán Blanco Álvarez due to the accident of 29/04/2011, where damages were caused to the plaintiffs.	3,008
	VELPA SOLUCIONES INTEGRALES S.A.	That EPM be ordered to pay the amount of the damages suffered from Loss of Profits and Consequential Damages, as the contract CT 2009 0220 was declared suspended, and the eventual decision to terminate the contract based on grounds such as a non-existent cause and for the sums that VELPA SOLUCIONES INTEGRALES S.A. will no longer receive; given the impossibility of contracting with the State for a period of 5 years, and this, based on the contracts entered into exclusively with the State during the year 2009 and its projection for the next period of 5 years.	6,337
	AXEDE S.A.	Loss of profits due to having affected their right to free competition, given the actions and omissions carried out by EMPRESAS PÚBLICAS DE MEDELLÍN EPM and the company MVM INGENIERIA DE SOFTWARE.	5,841
	International Business Group S.A.S.	The PLAINTIFF requests a declaration of liability of the parties for the damages suffered by the events narrated and an order to pay the material damages, in the sense of: consequential damages, consolidated loss of profits and future loss of profits.	6,181
	I.A. S.A. (Associate Engineers)	To declare the breach of contract CW 10084 of 2017 and to order compensation for damages in the form of consequential damages for the concepts of payroll between May 9 and 15, 2018, transportation, tools and equipment; compensation for loss of profits due to the availability of equipment and tools between 10 May 2018 and 31 May 2021; and, compensation for damages in the form of loss of profits for financial returns not received between May 10, 2018 and May 31, 2021.	6,028
	Zandor Capital S.A. Colombia	It requests the nullity of administrative acts No. 0156SE-20170130033319 of March 14, 2017, 015ER-20170130045192 of April 8, 2017 and SSPD-20178300036125 of June 20, 2017 and as a restoration of the right an initial claim of five thousand (5,000) million pesos.	5,094
	Inversiones Gallego Tobón SAS	Material damage resulting from: construction of two synthetic courts, dismantling of the courts, assembly of the gymnasium; Lease fee for 48 months; Labor Expenses, Advertising and Marketing Expenses; Payment of public services, stationery, supplies, cleaning supplies; purchase of gym equipment; Future loss of earnings: $1,416,371,947; Moral damages, for the 5 natural persons convening: 500 SMLMV/Physiological damage, for 5 natural persons: 500 SMLMV/Loss of opportunity, for the 5 natural persons: 500 SMLMV.	5,031

Company	Third party	Pretension	Value
EPM	Yovan Antonio Quintero Gómez	Declares EPM ADMINISTRATIVELY AND CIVILLY LIABLE. and/or THE COMPANIES; directly for the material and moral damages in their different manifestations and to compensate my principals as DRAGUEROS MINERS in their MAIN ACTIVITY in which they worked from 1.995 to date, adding up to 27 consecutive years. INDEMNIFY EVERYTHING THAT BY RIGHT BELONGS TO THEM AND IS COVERED BY LAW, and the provisions of the Manuals of Unit Values for the Payment of Compensation for Economic and Productive Activities; I must deliver to them and transfer to my principals the housing compensation, according to the MVU in the place where they decide.	5,127
	Licuas S.A.	That EPM be ordered to recognize and pay the contractor the monies withheld, The nullity of the official letter 201901301521030257 of 2019 contractual act by which the unilateral termination of the contract was declared CW20106 for non-compliance. To order EPM to restore the project and to recognize and pay the cost overruns caused to LICUAS, due to the interruption of the project for reasons not attributable to the contractor.	5,028
	Albeiro de Jesús Valencia Pérez	The plaintiff requests the payment of social benefits and the moratorium penalty, from July 9, 2010, until the total amount owed by all the plaintiffs is paid, in order to obtain payment of the judgment issued by the Eighth (08) Labor Court of Decongestion of the Medellín Circuit in the labor lawsuit with file 05001-31-05-005-2011-0135-00, in which EPM was not a party to the process.	4,818
	Coonatra Copa SAS Bus Depot	PROFIT. Estimating from the entry into operation of the logistics center (January 1, 2019), until September 30, 2019, in an estimated $280,740,048 per month. CONSEQUENTIAL DAMAGE, for payment of salaries and social benefits of the staff who have provided permanent custody services of the property and its maintenance, from December 2018, until September 30, 2020, since, as the holder of the real right of ownership, in any case, he is responsible for the conservation and custody of the property.	4,804
	SMARTGROWTH S.A.S	To declare that EPM is responsible for the unlawful damage and material damages caused to the plaintiffs by actions and omissions in the constitution of the unformalized electrical easement over the rural property "La Cascajera", located in Madrid, Cundinamarca; and, the damage caused to the mining activity carried out. Condemn EPM to remove the electrical power wiring that crosses the property; and, to compensate for the damage of $1,477,586,746, which corresponds to the compensation for the occupied area and which is susceptible to the constitution of an unformalized easement since 2016.	4,821
	Humberto de Jesús Jiménez Zapata	That the process be carried out as a class action in accordance with Law 472 of 2008, against Hidroeléctrica Ituango S.A. ESP and EPM ITUANGO S.A. ESP, so that the living conditions of the plaintiffs, which were stable, are respected, and the values that are relative to each of the families and persons registered are given, declaring that EPM Hidroituango project did not duly pay the values and compensation to each of the families and individuals who were registered, in accordance with the manual of unit values.	3,647

Company	Third party	Pretension	Value
EPM	Katerine Miranda Miranda	To declare the CONSORCIO HIDROELECTRICA HIDROITUANGO S.A. E.S.P, EPM, the MAYOR'S OFFICE OF MEDELLÍN and others, jointly and severally and administratively liable for all patrimonial and extrapatrimonial damages caused to the plaintiffs, as a result of the emergency generated by the overflow of the Cauca River and until July 26, 2019, an event that originated in the Ituango Hydroelectric Project. Moral damages: 100 SMLMV; loss of earnings $12,844,891; and, Damage to constitutional and conventional property: 100 SMLMV for each of the plaintiffs.	2,894
	Hilos Hebratex S.A.S	Claims the benefit for: The five months of 2012, $474,987,000; for the twelve months of 2013, $1,271,857,300; for the six months of 2014, $1,170,634,000. For the paralysis during the 25 days it took to repair the engines and fix and deliver the machines, $82,125,000; for the repair of the machines, $2,400,000; for payroll during the 25 days of the company's paralysis, $4,172,646; for the production materials that were damaged, $2,312,000; and, for rent payment during the twenty-five days of paralysis of the company, $2,348,000.	4,226
	OPTIMA S.A.	That CORANTIOQUIA AND EPM are jointly and severally and administratively liable for all damages, patrimonial and extra patrimonial, caused to OPTIMA S.A. CONSTRUCCIÓN Y VIVIENDA Y PROMOTROA ESCODIA S.A., as a result of the breach of the duty of care, prevention, protection, maintenance, recovery and other actions, which guaranteed the balance and sustainable development of the environment in the Las Brujas basin, Loma de las Brujas and Cuenca del Ayura in the Municipality of Envigado.	4,190
	Miguel de Jesús Gómez Ramírez	To declare EPM responsible for including the plaintiffs as persons affected by the Ituango Hydroelectric Project, as miners and to cancel the compensation to which they are entitled for loss of economic activity, granting them Type 3 compensation for the population and to compensate the plaintiffs as miners for 28 years, and therefore, to pay them for their improvements, crops, possession, construction and maintenance of roads, legal premiums, relocation, consequential damages, loss of profits and moral damages.	4,170
	INCIVILES S.A.	Declare null and void EPM's Resolutions 0041 of January 21, 2005 and 00283 of April 21, 2005, which declared the risk of breach of the contract No 020113590 entered into between EPM and INCIVILES.	3,645
	Gustavo Vélez Correa	That it be declared that EPM is administratively responsible for the economic damages caused to the plaintiff by the fact that the plaintiff is the holder of a mining concession contract over the area that EPM required for the imposition of easements and expropriation, related to the Valle de San Nicolás project, in the jurisdiction of the municipality of El Retiro.	3,689
	Carlos Augusto Jiménez Vargas	Declare that the defendants are jointly and severally liable for all damages suffered by the plaintiffs due to the sewerage works of CENTRO PARRILLA.	3,799

Company	Third party	Pretension	Value
EPM	Horacio de Jesús Gómez Ramírez	To declare EPM administratively, civilly and financially liable for not including HORACIO DE JESÚS GÓMEZ RAMÍREZ, IMELDA RODRÍGUEZ HENAO, MIGUEL DE JESÚS GÓMEZ RAMÍREZ, MARÍA CAROLINA SÁNCHEZ DE GÓMEZ as affected by the Hidroituango project, as Chorreros miners since 1994; to compensate them for the loss of economic activity for 28 years; pay them improvements for possession, cultivation, construction and maintenance of a road, legal premiums, relocation, consequential damages, loss of profits, and moral damages caused; and, to pay them $2,675,664,000.	3,802
	Ingeniería Total Servicios Públicos S.A. E.S.P.	That it be declared that EPM breached Contract CT-2010-0499, the purpose of which was the "Construction and replacement of aqueduct and sewer networks in the Moravia neighborhood of the municipality of Medellín and paving of the roads affected by these works... ". That, as a result of such breach, the economic equilibrium of the Contract was broken and is responsible for the restoration of that equilibrium.	3,300
	Darío Sepúlveda Hernández	The convener requests that the damages generated with the construction of the PH PORCE III be covered, due to the abandonment that he had to make of his ranch and his activity as a barequero at the height of the LAS BRISAS and REMOLINO landscapes, due to the non-compliance with the agreements reached with EPM.	3,260
	Horacio de Jesús Gómez Ramírez	To declare EPM responsible for including Mr. Horacio and Mr. Miguel de Jesús Gómez Ramírez; María Carolina Sánchez de Gómez and Imelda Rodríguez Henao, as affected by the Hidroituango Project; as MINEROS CHORREROS since 1994 and, therefore, to pay the compensation to which they are entitled, for the payment of compensation for loss of economic activity and to INDEMNIFY the children for 27 years; and to pay for their improvements, cultivation, possession, construction, and maintenance of the road; legal premiums, refusal, consequential damages, loss of profits and moral damages since 2018/05/26.	3,414
	Oscar Jaime Restrepo Molina	For the frustrated profits, due to the decrease in the contracts that he may have had with EPM and his inability to contract with it, as a result of the presentation of the complaint that was made with the company the suspension of the contracts that were in execution.	3,307
	María Isabel Lora López	That EPM be declared administratively liable for all the pecuniary and non-pecuniary damages suffered by the plaintiffs as a result of the death of the minor named MONICA ANDREA LORA LOPEZ and the injuries suffered and suffered by MARIA ISABEL LORA LOPEZ; for the events that occurred on 02/02/2000 in the Causes de Oriente neighborhood of the municipality of Medellín.	3,084
	Luz Estela Arrieta Morales	To declare the entities summoned, jointly and severally and administratively responsible for all the patrimonial and extrapatrimonial damages caused to the plaintiffs, on the occasion of the overflow of the Cauca River that originated in the Ituango Hydroelectric Project; and to pay each of the plaintiffs 100 minimum wages for moral damages. Due to the impact on the constitutional rights of the plaintiffs, such as decent housing, work, health, among others; and, to the rights enshrined in international conventions and treaties on human rights, the payment of one (1) minimum wage for each month that the red alert remained.	3,289

Company	Third party	Pretension	Value
EPM	José Isaac Guerra Diaz	It is hereby declared that the MUNICIPALITY OF MEDELLÍN, the Government of Antioquia, EMPRESAS PUBLICAS DE MEDELLÍN, the Municipality of Ituango and the Municipality of Taraza, are administratively responsible for the unlawful damages caused to the plaintiffs, on the occasion of the immediate evacuation of their properties, also ceasing their commercial activities. For each of the claimants for non-material damages, the total sum of 100 SMLMV.	3,261
	RUBEN DARIO ESCOBAR VILLA	It is declared that within the employment relationship, the plaintiff performed work schedules in the standby modality, without these times having been paid.	1,661
	Cuenca Networks Consortium	To declare that EPM was unfairly or illicitly enriched by the execution of contract CT-2014-000377-A1, which was not perfected, for which reason it must compensate for the alleged impoverishment suffered by the CORSORCIO REDES CUENCAS.	3,172
	Yuneidy Mazo Gaviria	Declare EPM and others responsible for the damages caused by the overflow of the Cauca River that originated in the Hidroituango Project. Moral damages 100 SMLMV for each claimant. $12,844,891 for the impact on constitutional assets, on the rights enshrined in international conventions and treaties on human rights; and, to the other rights that the Judge finds proven. IN THE ALTERNATIVE, the judge is requested that, if he does not decree the compensation indicated, alternatives such as a study kit and tools for recreation and sports be granted for a minimum of $5,000,000.	2,970
	Alberto Arroyo Montiel	To declare Hidroituango, EPM, and others administratively liable for the damages caused to the defendants, for what they did not receive when they had to travel due to the emergency caused, due to the exceptional risk due to the impossibility of carrying out the economic activity from which the plaintiffs' livelihood was derived, calculated for 27 months, it is settled with 2 SMLV for 12 months. Due to the emotional effects of the victims, 100 SMLV is requested for each one for 2020. The estimate is $87,780,300 per person, for a total of $2,896,749,900. There are 33 plaintiffs.	2,960
	Wilfran Enrique Gonzalez Castro	That the entities be declared jointly and severally and administratively liable for all the patrimonial and extrapatrimonial damages caused to the plaintiffs, on the occasion of the overflow of the Cauca River that originated in the Ituango Hydroelectric Project.	2,954
	Adonai Vanegas Jimenez	To declare the CONSORCIO HIDROELECTRICA HIDROITUANGO S.A. E.S.P, EPM, the MAYOR'S OFFICE OF MEDELLÍN and others, jointly and severally and administratively liable for all patrimonial and extrapatrimonial damages caused to the plaintiffs, as a result of the emergency generated by the overflow of the Cauca River and until July 26, 2019, an event that originated in the Ituango Hydroelectric Project. Therefore, the defendant entities must pay $87,780,300 to each of the 19 plaintiffs.	2,894
	Diego Alberto Olaya Sánchez	That the defendant entities be declared administratively responsible for the facts complained of. As a result of the above declaration, the Court ordered to pay moral damages of 87,780,300 for each of the 19 defendants. Consolidated loss of earnings, for the months that these people were away from their homes. 100 minimum wages for each plaintiff for constitutional and conventional goods.	2,889

Company	Third party	Pretension	Value
EPM	Eurocerámica S.A.	It is intended that EPM recognize and pay the sum of THREE THOUSAND ONE HUNDRED THREE MILLION FIVE HUNDRED SEVENTY-EIGHT THOUSAND NINE HUNDRED-AND THREE-PESOS M/L ($3,103,578,903), allegedly incorrectly invoiced by EPM.	3,078
	Rafael Segundo Herrera Ruiz	It is declared that EPM and others are jointly and severally and administratively liable for all the patrimonial and extra patrimonial damages caused to the plaintiffs, due to the overflow of the Cauca River that originated in the Ituango Hydroelectric Project.	3,126
	Digna Tulia Acosta Ramos	To declare EPM and other official entities jointly and severally and administratively liable for all patrimonial and extra patrimonial damages caused to the actors, as a result of the emergency generated by the overflow of the Cauca River and until 2019/07/26, the date on which Elevation 435 was terminated and the National Disaster Risk Management System modified the state of red alert to Orange, This was the case with the Ituango Hydroelectric Project; order them to pay $87,780,300 to each of the plaintiffs.	3,086
	Sadis Marcela Estrada	To declare the plaintiffs jointly and severally and administratively liable for all the patrimonial and extra patrimonial damages caused to the plaintiffs on the occasion of the overflow of the Cauca River that originated in the Ituango Hydroelectric Project. To order the defendant entities to pay 100 SMLMV to each of the 17 plaintiffs for MORAL DAMAGES; to the payment of the Minimum Wage for each of the months that these people were away from their homes due to the declaration of red and orange alerts for the Municipality of Tarazá.	3,056
	Francy Elena Avendaño Gómez	To declare EPM and other official entities jointly and severally and administratively liable for all patrimonial and extra patrimonial damages caused to the actors, as a result of the emergency generated by the overflow of the Cauca River and until 2019/07/26, the date on which Elevation 435 was terminated and the National Disaster Risk Management System modified the state of red alert to Orange, This was the case with the Ituango Hydroelectric Project; order them to pay $87,780,300 to each of the plaintiffs.	3,055
	José Eduardo Suárez	Declare the summoned entities responsible for the patrimonial and extra patrimonial causes caused to the actors, by the overflow of the Cauca River that originated in the Hidroituango Project. The defendants are ordered to pay SML 100 to each plaintiff for moral damages. Make the payment of 1 SML for each month that the red alert remained for the Municipality of Cáceres, between 2018/05/12 and 2019/07/26. If it is presented that the red alert has been extended, they request recognition of the minimum wages that the plaintiffs stop earning, from the date of the new facts, until the end of the alerts.	2,946
	Dennis Esther Sehuanes Angulo	It is declared that the MUNICIPALITY OF MEDELLÍN, the Government of Antioquia, EMPRESAS PUBLICAS DE MEDELLÍN, the Municipality of Ituango and the municipality of Taraza, are administratively responsible for the unlawful damages caused to the plaintiffs, on the occasion of the immediate evacuation of their properties, also ceasing their commercial activities due to the overflow of the Cauca River, which has brought a great alteration to the constitutional and conventional rights of the plaintiffs.	3,004

Company	Third party	Pretension	Value
EPM	Mercantile Company TECNOLOGÍA INSTRUMENTACIÓN Y GAS, T.I. GAS S.A.S.	To declare that EPM is administratively liable for the MATERIAL damages, since it has carried out abusive conduct of the dominant position and limitation of freedom of competition, against the commercial company TECNOLOGIA INSTRUMENTACIÓN Y GAS, T.I. GAS S.A.S., for the commercialization in the Aburra Valley and a large part of the Department of Antioquia of G-1.6 diaphragm gas meters for residential use, generating with such conduct, an unlawful damage to the Company in question.	3,019
	Ruby Susana Arrieta Baldovino	That the entities be declared jointly and severally and administratively liable for all the patrimonial and extra patrimonial damages caused to the plaintiffs, due to the overflow of the Cauca River that originated in the Ituango Hydroelectric Project.	2,899
	Juliana Urrea Giraldo	It is intended to declare the employer's fault of the MISPE Consortium and jointly and severally to EPM, for the payment of patrimonial and extra patrimonial damages.	1,144
	Sebastián Garzón López	Request reimbursement from EPM for state of health and employer's fault for work accident	1,389
	Sirle Johana Villareal Henríquez	To declare the defendants liable for the pecuniary and extra patrimonial damages caused to the plaintiffs, as follows: for moral damages, $87,780,300 per plaintiff. CONSOLIDATED LOSS OF PROFITS: 12,844,891,299 each. FUTURE LOSS OF EARNINGS: If the red alert is extended, recognize the minimum wages that the plaintiffs stop earning until the alerts end. DAMAGE TO CONSTITUTIONAL AND CONVENTIONAL PROPERTY: 100 SMLV each. ALTERNATIVELY, a study kit and tools for recreation and sport for a minimum of $5,000,000 for each of the plaintiffs.	2,917
	Ciudadela Comercial Unicentro Medellín PH	To decree the nullity of the administrative act issued by EPM with file 20190130037817 of 2019-02-27. To order the restoration of the plaintiff's right by ceasing to collect the electricity tax provided for in Law 142 of 1994, Law 143 of 1994 and Law 223 of 1995; and, to make the refund of what was paid for this concept from January 1, 2017 and until the date of judicial notification that ends the process.	382
	Parcelación Estación Popalito P.H.	That by way of reinstatement of the right, the refund of the sums paid for the concept of Electric Energy Tax by the Popalito PH Parcel to EPM from December 1, 2016 to June 2021 and November 2022, for a value of $13,958,822 COP, is ORDERED. To condemn for the value of the default interest at the maximum legal rate on the sums paid for the concept of Electricity Tax, until the date on which the respective refund of these sums is made from May 20, 2022.	10
Total EPM			**1,852,525**
Aguas Nacionales	HHA Consortium	Recognition of costs related to damages, due to longer permanence on site due to the presence of unforeseeable physical conditions, claim higher socio-environmental and financial costs.	444,867
	Dayron Alberto Mejía Zapata	Recognition of material and moral damages, compensation.	13,835
	Compañía Colombiana de Consultores S.A.S.	Consequential damage and loss of profits, indexed.	714
	Other	Processes for less than $315	1,116
Total Aguas Nacionales			**460,532**

Company	Third party	Pretension	Value
ESSA	Luis Aurelio Mutis Ardila	To condemn, therefore, the Municipality of Piedecuesta - Electrificadora de Santander - Gobernación de Santander - Metrogas, as reparation for the damage caused as reparation for the damages caused by the Municipality of Piedecuesta - Electrificadora de Santander - Gobernación de Santander - Metrogas - Metrogas, as reparation for the damage caused as reparation for the damages caused by the Municipality of Piedecuesta - Electrificadora de Santander - Governacion de Santander - Metrogas, as reparation for the damage caused as reparation for the damages caused by the Municipality of Piedecuesta - Metrogas - Metro	75,225
	Tomon Ltda and Others	It is requested that the existence of a Strategic Alliance contract between ESSA and the Unión Temporal San Gil Iluminado be declared.	19,471
	Elquin de Jesús Tobón Clavijo and others	Proceedings involving less than 650,000,000.	12,809
	HMV Ingenieros Ltda	Declare that ESSA breached the contract by refraining from authorizing HMV to submit the action plan in accordance with the monthly progress of the works and order it to pay HMV the value that is proven	7,948
	Promotora Agrotropical Colombiana SAS	To declare the non-compliance with the commercial offer No.ON-013-2008, ordering ESSA to pay damages.	1,604
	Jose De La Cruz Carreño Acevedo	To declare the permanent occupation of the private property by Electrificadora de Santander S.A. E.S.P., on 10 urban lots owned by Mr. José de la Cruz Carreño Acevedo since mid-September 2016.	1,089
	Martha Leonor Rodriguez Ochoa	To order the Nation, the Attorney General's Office, ESSA and the municipality of Málga, jointly and severally, to pay the plaintiff the material damages for her loss of employment as a result of the serious injuries to her body and loss of working capacity. As well as declaring them administratively and non-contractually liable for the damages caused by the death of Mr. Manuel Rodríguez Ochoa and serious injuries caused to the minor Deisy Susana Ballesteros Rodríguez in events that occurred on January 7, 2017.	922
	Gerrsson Enmanuel Duarte Pabon	Declare the ESSA liable for the damages caused to Gerson Duarte and his family group (4 people), for the damages derived from the improper location of energy networks that caused the electrocution of the plaintiff on July 30, 2011, when he was carrying out work on the property located on Calle 10 con carrera 14 no. 10-37 barrio San Antonio de Piedecuesta. That ESSA be condemned for the material and moral damages derived from the act described, which in the opinion of the plaintiff are equivalent to the sum of $2,128,885,110.	3,662
	Blanca Sepúlveda Oviedo and Others	Moral damages, damage to life, loss of earnings	5,543
	Maria Edith Chavarro Cruz	The conveners request that those summoned recognize the joint and several non-contractual civil liability before the conveners in relation to all the compensable damages they have suffered due to the death of Carlos Uriel Piza Ariza.	1,567
	Luz Mary Herrera Bohorquez	It corresponds to the compensation for the pain caused on the occasion of the death, causing deep pain to a permanent companion, own and foster children, parents and siblings	1,379

Company	Third party	Pretension	Value
ESSA	Maria Eugenia Reyes Contreras	That an employment contract existed between Mr. Daniel Soto Palomino (R.I.P.D.) and the company Electificadora de Santander S.A E.S.P. - ESSA S.A. E.S.P., from September 15, 1997 to May 28, 2020. That the accident at work suffered by Mr. Daniel Soto Palomino (r.i.p.d.) occurred due to the fault of the employer, Electificadora de Santander S.A. E.S.P. - ESSA S.A. E.S.P.	1,337
	Martha Liliana Alarcón Castellanos	Non-material damage suffered by the applicants, the impairment suffered by a person in his or her integrity without having the obligation to bear it. Affectation that they have suffered in their relationship due to the death of Mr. Sandoval.	788
	Hermides Pineda Silva	To declare ESSA and Iluminación Yariguies S.A. administratively and non-contractually liable for the damages caused to the plaintiffs, due to the death of Robert Andrés Pineda Balaguera, in events that occurred on May 23, 2017.	825
	Briceida Oviedo De Rodriguez	To declare the company ESSA contractually liable for breach of the obligations arising from the contractual relationship for the preparation of material works and supply of electricity with Mrs. Briceida Oviedo de Rodríguez.	665
TOTAL ESSA			134,834
EMVARIAS	William Alberto Giraldo Ocampo, Eusebio De Jesus Gonzalez Barrera, Sebastian Jimenez Garcia, Orlando de Jesus Torres and Others	Reality Contract	16,881
	Alcides Martínez Díaz and others	Direct reparation / non-pecuniary damage	17,471
	JAC La Cejita and others	Declarative	0
	Gabriel Hernán Rúa Sepúlveda, Sorleny Correa Montiel and others	Profit	22,983
	José Edilberto Jaramillo Arteaga	Change of modality from public worker to official worker	1,258
	Juan Camilo Agudelo, Sandra Bibiana Agudelo Ortiz and others	Wage equalization	907
	Aleyda Patricia Chaverra Sierra	Failure of service - repair of damage caused	770
	Linda Johana Martinez H. et al.	Recognition and payment of the damages caused by the death of Mr. Marlon David Martinez Herazo when he was run over by an EMVARIAS sweeper	451
	Efraín Antonio Hernández G. et al.	Pension substitution / Pension settlement readjustment	338
	Joel Suárez Mira e Inversiones Juanfa S.A.S. and others	Nullity and reinstatement of the right/ Appeal for guarantee	278
	Edwin Yovany Cano	Recognition of the employment contract with EMVARIAS	123
	Juan Guillermo González Velásquez and others	Labor responsibility in solidarity with COOMULTREVV	143
	Nubia Estella Torres Amariles	Responsibility for solidarity with the U of A Foundation.	52
	Claudia María Henao Cifuentes	Employer's fault	48

Company	Third party	Pretension	Value
	Luis Fernando Gutiérrez Correa	Compensation for work-related injuries filed by Mr. Fernando Gutiérrez Correa, based 05001310500220170025300	275
TOTAL EMVARIAS			**61,978**
CHEC	María Marleny Montoya de García et al.	Material damage/ non-material damage/ consequential damage/ damage to health/ unlawful damage, compensation	30,265
	Héctor Castro et al.	Conventional Retirement	17,033
	Positiva Compañía de Seguros S.A.	Claim for the return of the mathematical reserve of capital constituted to cover the future pension allowances of the beneficiaries of the law/ Payment of assistance and economic benefits derived from the moral event that occurred at the La Esmeralda Plant in September 2011.	1,595
	Francisco Javier Taborda	Declare chec liable for unlawful damage and order compensation; That Mr. Julio Cesar Cardona be held responsible for failing to take security measures on the premises	972
	Flor María Sanchez Palace	Material damages are claimed on the occasion of the death of Mr. Rogelio Palacio Sanchez in events that occurred in the area of La Escombrera in the municipality of La Merced in the department of Caldas/moral damages are claimed	508
	Carlos Andrés Velásquez Marín and others	Moral and patrimonial damages are claimed as a result of an electrical accident that caused loss of work capacity	713
	Carlos Eduardo Jerónimo Arango and others	Pension allowance repayment/ Recognition of 100% allowance 14	484
	José Jair Granada and others	Permanent travel expenses-social security contributions	482
TOTAL CHEC			**52,052**
CENS	María Riquilda Poveda Murillo and others	Moral damages, material damages, loss of profits	16,573
	Paht Construcciones S.A.S.	To order the liquidation of Contract CT-2015-000070, where CENS 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 unforeseeability, as well as the sums as a complement to the payment of act No. 6 for works executed, recognized and not paid.	2,055
	Nubia Boada Dueñas	Continuity in the payment of 12% on the pension allowance, reimbursement of the contributions deducted from the moment of the shareability of the pension, duly indexed and payment of default interest of article 141 of Law 100 of 1990, plus costs of the process.	1,905
	Other administrative proceedings, with an amount of less than $250 million	Other administrative processes (7) with an amount of less than $250 million.	926
	Other labor proceedings with an amount of less than $250 million	Other labor proceedings (10), with an amount of less than $250 million.	382
	Carlos Augusto Rangel Alvarez	Recognition of conventional benefits	506
	Cesar Augusto Labastidas Arias	Enforcement process following the ordinary labor process that seeks to enforce the judicial title-judgment	459

Company	Third party	Pretension	Value
CENS	Cable Guajira Ltda.	Declare CENS SA EPS and/or UNE EPM Telecomunicaciones S.A., liable for the breach of contract by not applying the rates and the formula for use, access and payment of the shared infrastructure provided for in resolution CRC No. 5283 of 2017 and incorporate them into the infrastructure lease contracts signed with the plaintiff companies Cable Guajira Ltda, Cable Éxito S.A.S. and Cable Digital de Colombia S.A.S.	441
	Nury Leticia Rodríguez Benitez	To declare the non-existence of the residential sewer easement in charge of the alleged servient properties, in favor of the alleged dominant property, called Palujan #1.	395
	Freddy David Rojas Suarez	To condemn CENS, Colombia Telecomunicaciones and TELMEX Colombia jointly and severally for injuries caused to the personal integrity of the plaintiff in events that occurred on October 20, 2020.	378
	SYM Ingeniería Ltda.	To declare CENS liable non-contractually and administratively for declaring the plaintiffs' inability to contract with the State. That economic damages for loss of opportunity be recognized.	304
	Condominium Centro Comercial La Estrella P.H.	Declaration of non-collection of the energy tax from the plaintiff and therefore, nullity of resolutions No. 20191030011621 and 20191030015458, ordering the cessation of collection of the tax and the refund of the sums paid.	33
Total CENS			**24,357**
EDEQ	Maria Amparo Fernandez Gil	Direct reparation for the death of plaintiffs' family members	2,898
	Danielly Arcila de Gil	Declare the defendants administratively, non-contractually, jointly and severally liable for the injuries suffered by the plaintiffs in different events	3,530
	John Jairo López Pérez y Otros	EDEQ is sued for the alleged damages suffered by the plaintiffs with the death of their relatives	3,757
	Fabián Alexander Bedoya Machado y Otros	Those injured by the fall of the bridge of the park of life that occurred in 2018 during the EDEQ Christmas lighting lawsuit are suing.	642
	Campo Elía Buritica Herrera	The plaintiff seeks a declaration of the employer's fault in the accident at work he suffered, that he and his family be paid material (loss of future and consolidated earnings) and immaterial damages (moral damages and damage to health).	623
	Nelson Forero Perez	Declare termination of the employment contract without just cause and without authorization from the labor office, ordering the defendant to pay compensation.	88
	Juan de Dios Botero	Request for restitution of the part of the "Vista Hermosa" farm that was occupied with electricity networks.	16
Total EDEQ			**11,554**
Regional Waters	María Inés Osorio Montoya	To order the municipality of Apartadó and Aguas Regionales EPM, to pay material damages (current and future), moral damages and damage to health, on the occasion of the death of the young man Cesar Augusto Jiménez Osorio, determined by the injuries suffered in the events that occurred on June 1, 2016 in the city of Apartadó.	712

Company	Third party	Pretension	Value
Regional Waters	Ana Arboleda de Mosquera	They request a decree that EPM together with Aguas Regionales are administratively responsible for the damages caused to the plaintiffs, and therefore order the payment of non-patrimonial damages and patrimonial damages.	1,101
	Elsa Rubiela Henao Pérez	To order the municipality of Apartadó and Aguas Regionales EPM to pay the material and immaterial damages caused by the failure in the service derived from the completion of the paving work on 104, 106 and 107 streets in the Laureles neighborhood.	799
	Sara Cristina Ferreiro Morales	They are asking for the readjustment of wages, unpaid overtime and the recognition of all salary emoluments caused throughout working life.	419
	Antonio Blanco Hernandez	Between the plaintiff and the company RODRIGO LENIS SAS, there was a contract for wVork or labor on the date of the facts, the defendant presents a loss of work capacity of 16.91% due to an ACCIDENT at WORK.	415
	Juan Carlos Lastra Serna	Declare the existence of an indefinite-term employment contract.	279
	Rosmery Velásquez Herrera	Order Aguas Regionales EPM S.A E.S.P to return the property to the owners	172
Total Regional Waters			**3,897**
Aguas de Antofagasta (ADASA)	ROWE and Others v Aguas de Antofagasta S.A.	C-2311/ 2316 - 2022 Claim for damages	1,171
	Soto with ADASA	C-4372-2019 Claim for compensation for damages due to non-contractual liability.	868
	Bravo/ ADASA and others	C-2782-3941-2304 2023/C- 4468 2020/ C-1516 2019	195
	Contreras/ ADASA	609-2022	434
	Límari v Ezentis Chile S.A. and Others	O-5919 2020/ 515-945-1244 2023	195
	Continental P&C Insurance Company	Compensation for damages due to flooding of the Bicentennial building	44
	Audit reports	13736 PTAS Sierra Gorda	50
	Other processes		296
Total Aguas de Antofagasta (ADASA)			**3,253**
ELEKTRA NORESTE S.A.	Alex Montenegro and others (Urbanización La Toscana)	Civil Procedure - Residents of Tuscany	1,128
	ASEP	Civil Procedure for Lawsuit Against Res.12581	573
Total ELEKTRA NORESTE S.A.			**1,701**
EPM Investments	DIAN - Directorate of National Taxes and Customs	To declare the nullity of the administrative acts: Resolution No.112412020000026 of 2020 and Resolution No.900006 of 2021, issued by the DIAN; as well as Sanction Resolution number 2021011060000347 of September 23, 2021 File: 202082350100015897 also issued by the DIAN, notified to EPM Inversiones S.A. on September 29, 2021.	370
Total EPM Investments			**370**
Aguas de Malambo	Nelson Mercado Luna	Payment of invoice No. 0095 by virtue of alleged works carried out to address emergency in Cra 22 with Calle 22 in the Municipality of Malambo.	234

Company	Third party	Pretension	Value
Aguas de Malambo	Emer Enrique Conrado Anguilla	Declare liability for material damages, damages, damages, damages to health, other goods and/or rights conventionally and constitutionally protected and, in general, of any other type that is demonstrated, caused as a result of the failure to provide the service.	25
	Fabian Bacca Jimenez	Recognition of the employment relationship acquired in 2015 and 2016, and consequently, the payment of vacations, bonuses, severance pay, bonus for signing the agreement and compensation for dismissal without just cause.	22
	Indeterminate Persons	Fraudulent Connection Process 2022	11
Total Aguas de Malambo			**292**
Total contingent liabilities			**2,607,345**

Amounts stated in millions of Colombian pesos-

27.3.2. Contingent liabilities Guarantees

Company	Third party	Pretension	Value
ELEKTRA NORESTE S.A.	Generating Companies	Performance guarantee to provide credit security and compliance with obligations under power purchase agreements.	153,702
	Empresa de Transmisión Eléctrica, S. A.	Bank guarantee to guarantee the payment of one month's billing of the Transmission System. And letter of credit as a guarantee of the payment of the costs of purchasing energy in the occasional market.	75,602
	National Public Services Authority	Performance bond to guarantee compliance with the obligations contracted in the Concession Agreement.	57,331
	Regulatory Operator of El Salvador	Letter of credit as a guarantee of payment of the costs of purchasing energy in the occasional market.	1,320
	Chugani & Other Investments	Civil Lawsuit for Damages of Contract Cancellations	1,051
	Osman Moreno and Others	Employment Lawsuits	72
Total ELEKTRA NORESTE S.A.			**289,078**
Total Contingent liabilities Guarantees			**289,078**

Amounts stated in millions of Colombian pesos-

With respect to the uncertainty in the estimated date of payment and the estimated value to be paid, for contingent liabilities the same business rules indicated in note 27.1.2.

In the Group, EPM also has as contingent liabilities, Environmental Sanction Proceedings, with the following information:

Third	Pretension	Value
Metropolitan Area of the Valley of Aburra	Discharge of wastewater from the San Fernando WWTP in violation of the minimum 80% removal level for parameters DBO5_Biochemical Oxygen Demand_, SST_Total Suspended Solids_, fats and oils established in Article 72, new user, Decree 1594 of 1984._ Metropolitan Resolution No. S.A. 000415 of April 28, 2014. A plea for conclusion was presented.	It is not possible to know the sanction to be imposed.
National Environmental Licensing Authority "ANLA"	Construction of a mini-center without authorization and use the ecological flow to generate energy without being authorized in environmental license (Porce III hydroelectric plant)_Auto 4335 of December 17, 2013.	It is not possible to know the sanction to be imposed
Metropolitan Area of the Valley of Aburra	Discharge of domestic wastewater to the ravine La Paulita as a result of the rupture of the collector. St. Peter's building	It is not possible to know the sanction to be imposed.
National Environmental Licensing Authority "ANLA"	Termosierra 1. To carry out the air quality samples reported in ICA 13, 14 and 15, without the periodicity established by the Industrial Air Quality Monitoring System, authorized in the environmental instrument corresponding to this project. 2. For conducting environmental noise monitoring reported in ICA 13, 14 and 15, with an Environmental Laboratory not accredited by IDEAM._Auto 350 of February 5, 2018. SAN0142-00-2017.	No charges have been made, and it is not possible to know the sanction to be imposed.
National Environmental Licensing Authority "ANLA"	Use of explosives in construction of Nueva Esperanza tower. The environmental license granted by this resolution does not cover any kind of work or activity other than those described in the Environmental Impact Study, the Environmental Management Plan, and in this administrative act. _ Auto 02574 of June 27, 2017 ANLA_	It is not possible to know the sanction to be imposed; disclaimers were filed
Metropolitan Area of the Valley of Aburra	Dumping of domestic wastewater from the rupture of the sewage pipe that leads to these waters, on a potrero and later on the gorge Dona Maria, a property called Torremolino. Allegations of conclusion were submitted on 2 September 2022.	It is not possible to know the sanction to be imposed; no charges have been made.
Metropolitan Area of the Valley of Aburra	In an authorized channel occupation over the La Malpaso gorge, a bed covering was observed and the walls of it in particular cyclopeo, work was not approved by the environmental authority. Metropolitan Resolution N° S.A. 1002 of June 4, 2020 aburra "by means of which an administrative procedure of an environmental sanction is initiated".	It is not possible to know the sanction to be imposed; no charges have been made.
National Environmental Licensing Authority "ANLA"	Do not submit the Definitive Biodiversity Loss Compensation Plan, in accordance with the established guidelines and Environmental License, in accordance with the provisions of the Handbook for the Allocation of Biodiversity Loss Compensation issued by the Ministry of Environment and Sustainable Development. New Hope. ORDER INICIO No. 08029 (24 August 2020), file: SAN0175-00-2020	It is not possible to know the sanction to be imposed; it has only begun.

Third	Pretension	Value
National Environmental Licensing Authority "ANLA"	1. To have carried out the dumping of the waste water generated in the Nueva Esperanza substation, by means of infiltration fields, without the corresponding modification of the Environmental License. 2. Not to have presented the results obtained during the measurements made at the concentrations of particulate matter, SOx and NOx, which were carried out during the construction stage of the New Hope substation. 3. Have not carried out the animal monitoring for the groups of mammals, amphibians and reptiles, for the year 2018." New Hope. Auto 01479 March 17, 2021 -SAN030-00-2021	Disclaimers were filed on July 19, 2023 POSSIBLE
Ministry of Environment and Sustainable Development_MAD_	Do not allow documentation of the Banker's property, on its acquisition and participation of the Environmental Authority in its selection, processing of forest reserve area, Project Nueva Esperanza at 500 kv. A cessation of procedure 28/11/2022 was requested	It is not possible to know the sanction to be imposed; it has only begun.
Metropolitan Area of the Valley of Aburra	To verify the facts or omissions constituting a violation of the environmental standards in force with regard to the flora resource. Irregular pruning intervention of one (1) tree individuals of the species Chiminango. Metropolitan Resolution N° S.A. 001 of January 2, 2023 "through which an environmental sanction procedure is initiated"	Disclaimers were filed on September 5, 2023. Possible discards.
Metropolitan Area of the Valley of Aburra	Sludge discharge to the outlet channel of the lagoon toward the river aburra-Medellin, then the dilution with water of the Manantiales Potabilization Plant, with a flow of approximately 26 liters/second (diluted sludge) on September 9, 2021. Metropolitan Resolution No. S.A. 2357 of September 21, 2022. "Through which an environmental sanction procedure is initiated"	There were discards. POSSIBLE.
Metropolitan Area of the Valley of Aburra	To verify the facts or omissions constituting a breach of the existing environmental rules concerning the natural water resource, basically by the non Presentation-timely sharing of information. Metropolitan Resolution N° S.A. 0027 of January 3, 2023 "through which an environmental sanction procedure is initiated"	Possible
Regional Autonomous Body of the Black and Nare River Basins	Alleged intervention without authorization to the channel of the unnamed water source in the sector El Tranvia of the municipality of Rionegro and the capture of a flow of water in a hydraulic work, directed entirely by a canal, without permission from the competent environmental authority. Resolution RE-00012-2023 "through which a preventive measure is imposed"	Possible
National Environmental Licensing Authority "ANLA"	1. Do not submit certificates, records, and information in Environmental Compliance Reports 2. For not restoring the whole of eroded areas and without vegetation. 3.Inadequately dispose of excess building materials. 4.To make a forest harvest greater than the one approved in the Environmental License, on the coverage of "Gallery Forest or Ryparium" 5.Construction and installation of 2 new towers. "MEDIUM MUFFIN AT 230 KV". By means of Auto 4577 of 17 June 2022, it provides that the requested procedure should not be terminated and makes a statement of five objections. On July 15, discards were filed against the Auto 4577 of June 17, 2022. CAR No. 03458 _ (June 27, 2018)-SAN-140-00-2017. Auto 4577 of June 17, 2022.	Possible
CORANTIOQUIA _ South aburra	Occupation of the channel in the La Honda Gorge without authorization	Possible
CORANTIOQUIA _ South aburra	Alteration of the water and landscape resource. Presence of blue coloring in the gorge The dirty one that conflows to the right bank of the Medellin River at the level of the channels of the ravines The Dirty and the Mine in the bridge of the Metro Station of Envigado.	Disclaimers were filed on December 27, 2023. Possible
CORANTIOQUIA _ South aburra	Alleged damage to wastewater to La Hondita Gorge	Possible
CORANTIOQUIA _ South aburra	Damage to local networks and associated collectors of the sewage system at the Refugio del Esmeraldal Park. Administrative Act 130AS-1208-9159 of August 2, 2012.	Possible
CORANTIOQUIA _ South aburra	Dumping of domestic wastewater in the margin of the Peladeros gorge in the Los Gomez vereda of the Manzanillo district of the municipality of Itagui. Administrative Act 130AS-1601-12557 of January 26, 2016.	Possible
CORPOGUAJIRA	For failing to comply with Article 2,2,6,1,3,1(f) of Decree 1076 of 2015 as regards the obligations of the generator of hazardous waste or waste at the Jepirachi wind farm (register with the competent environmental authority for one time and keep the registration information updated annually). Auto 976 of October 2, 2017; Resolution 1373 of September 29, 2020.	It is not possible to know the sanction to be imposed; no charges have been made.
National Environmental Licensing Authority "ANLA"	Having carried out inadequate practices with respect to surface water sources in the project's area of influence; having carried out the collection of the water resources from the Quebradas "El Roble", "Burunda" "Bolivia" and "Guacimal", at flows higher than the concessionaires and/or authorized for the development of the project; not having implemented in each of the concessioned water bodies, the infrastructure that would allow monitoring of the remaining flows, for the purpose of being presented in the environmental compliance reports; Not having carried out and delivered water quality monitoring and hydrobiological communities in the "Cauca River", under the conditions set out in the environmental license. For not having carried out the reformation and recovery of the channel of the "San Andrés River" and of its flood zone to its natural conditions, within the time granted; having carried out the exploitation of stone materials coming from "San Andrés River", without the updated environmental permits; For not having delivered the results of the sediment monitoring of "Rio Cauca", in order to establish the baseline of comparison at the time of the start of the project's operation phase. Having exceeded the maximum permissible levels of PST (particulate matter) and atmospheric pollutants in the asphalt plant located in the "El Valle" Industrial Zone; for not having built the necessary facilities and infrastructures in the asphalt plant chimney for monitoring emissions from fixed sources; For failing to comply with the management measures of the "Management and Disposal Plan of Materials and Botadero Areas" disposition of plant material mixed with inert material within the deposits and lack of signaling of the material disposal zones that remain active. All this in the area of influence of the project "construction, filling and operation of the Pescadero - Ituango Hydroelectric Project... (SAN0033-00-2019_Auto 2920 of 2015).	It is not possible to know the sanction to be imposed. Decadergo tare registered with 2018041852-1-000 of 10 April 2018 Presentation

Third	Pretension	Value
National Environmental Licensing Authority "ANLA"	Auto 00009 of January 8, 2021 La ANLA initiates the environmental sanction procedure for the contingency associated with the auxiliary deviation system, to verify the following facts: 1. Not to have reported within the term provided for in the law (24 hours) the contingent event that occurred on April 28, 2018. 2. To have continued the construction of the SAD and its infrastructure, without having sufficient technical information related to the environmental characterization of the area operated for the geology and geotechnical components. 3. For allegedly generating negative impacts on renewable natural resources. 4. Not having guaranteed for the first days of the month of May of the year 2018 and before the evacuation of the water dam of the Cauca River by the project's machine house, the ecological flow of that source downstream of the dam site, to ensure the integrity of ecosystem services and environmental protection goods that are part of the water source. By the contingency associated with the Auxiliary Deviation System. *No charges are available; however, a request was made for a cessation of the sanctioning procedure by Communiqué No. 2018064395-1-000 of 24 May 2018 (SAN0097-00-2018_Auto 02021 of 2018)	Without any charges, the lawyer considers it possible. The opinion of the expert expert expert expert (Poyry) for the lifting of the preventive measure was submitted on 30 December 2021. By means of Auto No. 4076 of June 07, 2023, notified on June 16, THE ANLA ordered a series of administrative proceedings in the course of the environmental sanction procedure. To date, no charges have been made.
National Environmental Licensing Authority "ANLA"	HYDROELECTRIC ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. *Initiation of sanction procedure for not guaranteeing downstream water of the dam of the project "Construction and operation of the Pescadero - Ituango hydroelectric project" The ecological flow to ensure the integrity of the ecosystem services and the environmental protection goods that are part of the water source "Rio Cauca". By Car 4915 of 29 June 2022, charges were made. Written disclaimers were filed on August 5, 2022. Auto No. 8016 of September 29, 2023 - ANLA opens a probationary period and orders the practice of tests requested by the Society and those considered by it. *No charge formulation available. (SAN0001-2019_Auto 0060 of 2019/01/21)	Without any charges, the lawyer considers it possible.
Third	Pretension	Value
National Environmental Licensing Authority "ANLA"	HYDROELECTRIC ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. 1. Dumping on intermittent dry channel X=1157241 and Y=1281506 coordinates 2. Discharge to the rain water channel from the mixer wash system located in the industrial zone of main works THE ANLA opened a sanctioning file but it has not been formally initiated. By Resolution No. 1222 of December 03, 2013, THE ANLA imposed preventive measures to suspend dumping. By Resolution No. 1363 of October 31, 2017, the ANLA lifted the preventive measure mentioned above. Auto 1282 On March 22, 2019, an environmental sanction file was opened Auto 03429 of April 24, 2020, ANLA initiates Environmental Sanctioning Procedure Auto No. 1821 of 21 March 2023, ANLA formulates statement of objections. With Vital Communiqué No. 3500081101479823041 of April 14, 2023, written disclaimers are presented. Office No. 20231420526581 of October 20, 2023 by which THE ANNA cites witness proceedings. On October 26, the witness test is practiced. License file LAM2233 for the same to work in file SAN0031-2019.	Without any charges, the lawyer considers it possible.
National Aquaculture and Fisheries Authority_"AUNAP"	HYDROELECTRIC ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. *Start preliminary investigation for affects to fishing activity during the closing of the machinery house gates. *No charge formulation available. (No file AUNAP_Auto 002 of February 14, 2019).	Without any charges, the lawyer considers it possible.
National Environmental Licensing Authority "ANLA"	HYDROELECTRIC ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. Repeated non-compliance with imposed obligations. La ANLA charged with Auto No. 8082 of october 03, 2023. By writing with Vital Communiqué No. 3500081101479823141 on october 30, 2023, a written statement of disclaimers was filed. The sanction procedure is being processed by Auto 11359 of December 19, 2019. SAN0284-00-2018 _December 19, 2019_.	Situation not resolved. To date, they have not made any charges.

Third	Pretension	Value
National Environmental Licensing Authority "ANLA"	HYDROELECTRIC ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. Non-compliance Contingency Obligations: - Not having permanently carried out the proper management of non-domestic wastewater and filtration in the left margin of the Gallery 380 MI. - Not having presented the hydrogeological model of the right margin of the project. - Not to have presented the cartographic information related to water quality and hydrobiological monitoring to be carried out at different points downstream of the project dam site. - Not having presented the results of the monitoring of offensive odors, water quality and physiochemical sludge quality during the pumping activity of the machine house. Auto No. 2423 of March 30, 2020, by which environmental sanction procedure is initiated. With vital registered N°3500081101479823014, a replacement appeal is filed against Auto N°00101 of 2023, which denied the practice of tests. Auto N°3541 of May 19, 2023, by which the ANLA confirms the Auton°00101 of January 11, 2023, which denies the practice of tests. Trade no. 20236600141911 of June 09, 2023, by which the ANLA gives a response to an authorization submitted by the company Hidroelectrica Ituango S.A. E.S.P. for the electronic notification of Auto No. 3541 of 19 May 2023, in which the entity denies a replacement appeal filed against Auto No. 00101 of january 11, 2023 (which denies evidence), with that decision being signed. SAN0030-00-2020_ March 30, 2020_ To date no charges have been filed.	Situation not resolved. Charges were filed by Auto 9812 of 18 November 2021 and charges were filed on 13 December 2021.
National Environmental Licensing Authority "ANLA"	HYDROELECTRIC ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. Repeated non-compliance with the obligations imposed under the contingency. Initiation of the environmental sanction procedure by means of Auto No. 06576 of July 13, 2020. The ANLA made statements of objections by means of Auto No. 7190 of 06 September 2023. On September 29, 2023, written disclaimers were filed with Vital Vital No. 3500081101479823123 SAN1285-00-2019 _ July 13, 2020_	Situation not resolved. To date, they have not made any charges.
National Environmental Licensing Authority "ANLA"	HYDROELECTRIC ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. _ Pass air quality and odor monitoring without meeting protocols established by the Minambiente. _Perform sample analysis for air quality and odor sampling by laboratories not accredited to IDEAM. Initiation of the environmental sanction procedure by means of Auto No. 07774 of August 14, 2010. Charges were filed by Auto 9931 of 22 November 2021 and charges were filed on 13 December 2021. By means of Vital Nº 3500081101479823015, a replacement remedy is presented against Auto Nº 00104 of 2023 by which THE ANLA denies the practice of tests. Auto N°3418 of May 15, 2023, by which THE ANLA resolves the appeal of replacement filed against the second article of Auto N°00104 of January 11, 2023, confirming it in its entirety. SAN1258-00-2019 _ August 14, 2020_ To date no charges have been filed.	Situation not resolved. To date, they have not made any charges.
National Environmental Licensing Authority "ANLA"	HYDROELECTRIC ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. _ Verifications and uptake of water at unauthorized points Exceilling of catchment flow with respect to the authorized lack of monitoring in specific periods Overcoming of discharge flow with respect to the authorized. Initiation of the environmental sanction procedure by means of Auto No. 4173 of June 2, 2022. By Resolution No. 00617 of March 29, 2023, the ANLA imposes a preventive measure consisting of the suspension of the discharges of domestic wastewater that are discharged into the water sources "Rio San Andrés" and "Quebrada Tacui", Coming from the domestic wastewater treatment systems of Camp Tacui Cuni, "TACUI CASINO PORTERIA". SAN0067-00-2022 _ June 2, 2022_ To date no charges have been filed.	Without any charges, the lawyer considers it possible.
National Environmental Licensing Authority "ANLA"	HYDROELECTRIC ITUANGO S.A. E.S.P. - HIDROITUANGO S.A. E.S.P. _ 1. Failure to implement measures to control erosion and degradation of conditions on the slopes and on the upper and lower slopes in the area known as "La Honda", Between the abscissa of km 17+800 - km 18+221 - Bridge 32 in the La Honda Gorge of the way Puerto Valdivia - Presa. 2. To have carried out the occupation of the channel of the body of waters "Quebrada Tacui", without having previously obtained the modification of the Environmental License granted for the development of the project (Res. no. 0155 of 2009). Auto N°5345 of July 17, 2023 by which THE ANLA provides to initiate environmental sanction procedure SAN0076-00-2023 _ 17 July 2023_ To date no charges have been filed.	Without any charges, the lawyer considers it possible.
Metropolitan Area of the Valley of Aburra	Alleged environmental affectation to the flora resource due to the severe pruning of one (1) individual tree of the species Cheflera (Schefflera actinophylla). Metropolitan Resolution No. S.A. 1050 of June 8, 2020 "through which an environmental sanction procedure is initiated".	It is not possible to know the sanction to be imposed; no charges have been made.
Corantioquia - South aburra Territorial Office	Non-compliance with the permit for forest harvesting and harvesting of species in good condition and in closed conditions without permission. Administrative Act 160AS-1506-12031 of June 17, 2015.	It is not possible to know the sanction to be imposed; disclaimers were filed
Corantioquia - Tahamies Territorial Office	To make charges against PUBLIC COMPANIES IN MEDELLIN, identified with NIT 890.904.996-7, for the alleged commission of environmental offenses on the basis of guilt and for the effects caused to the flora resource, derived from the events consisting of the burning of a sector of approximately 10 hectares, being 2,5 hectares of natural forest and stubble. Resolution 160TH-ADM1903-1901 of March 29 and 2019- TH4-2013-8	It is not possible to know the sanction to be imposed.

Works for tax purposes

The Group also has as contingent liabilities, works for taxes, with the following information:

In exercise of the provisions of Article 238 of Law 1819 of 2016, Empresas Públicas de Medellín E.S.P. -EPM- as a taxpayer of income tax and complementary taxes was linked to the mechanism of works for taxes, among others, with the project "Improvement of tertiary roads in Cocorná" prior concept of technical feasibility of the Ministry of Transport, as a form of payment of a portion of the income tax for the 2017 taxable period in the amount of $33,701 million, with a 10 % stake by Empresa de Energía del Quindío S.A. E.S.P. -EDEQ-. Subsequently, the Ministry of Transport objected to the scope of the project, resulting in the disappearance of the factual and legal basis of the administrative act linking to the mechanism, so that it lost its enforceability and consequently the project became unenforceable for EPM.

By virtue of the above and considering the decay of the administrative act, it is expected that the Directorate of National Taxes and Customs DIAN will issue the administrative act with which the extinction of the tax obligation would be obtained once the judicial discussion is concluded, in that order, the company is exploring alternatives and taking steps to achieve the closure of this issue. This situation could imply an accounting recognition of interest for arrears pending determination and assumption of the costs executed in the work, which to date amount to $1,011 million, once the procedure to which this matter is subject under the terms of Decree 1625 of 2016 is concluded.

In line with the exploration of alternatives that has been carried out, with the purpose of mitigating the risk of interest being caused by future arrears in the income tax of the taxable year 2017 of EPM and EDEQ, in the event of a possible declaration of non-compliance by means of a final administrative act by the competent national authority or a ruling by a judicial authority, An advance deposit was made on September 16, 2022, in favor of the DIAN for $77,985, which is reflected in the financial obligation of the companies as a surplus, which in legal and tax terms is equivalent to an overpayment or of what is not due and can be returned to taxpayers once this matter is definitively resolved in their favor. The deposit of these resources in no way obeys an express or tacit conduct of acceptance of any type of responsibility on the part of EPM and EDEQ and does not imply acceptance or manifestation of non-compliance with their obligations

derived from the link to the mechanism of works for taxes. Nor do they waive any claims they may make in relation to this matter to show that there is no breach and therefore no interest or penalties should be paid.

Once it is determined that there was no non-compliance with the works for taxes mechanism by taxpayers, the DIAN must return any sum that results in favor of EPM and EDEQ.

In addition to the above, and as a mechanism to protect the interests of the companies, EPM filed a lawsuit before the Administrative Court of Antioquia in the exercise of the means of control of nullity and restoration of the right against: the Agency for the Renewal of the Territory (ART), the Ministry of Transport, the National Institute of Roads (INVIAS), the Directorate of National Customs Taxes (DIAN), and the National Planning Department (DNP). In order that, among others: the nullity of the administrative act issued by the Agency for the Renewal of the Territory on May 13, 2022, by virtue of which it refuses to recognize the exception of the loss of enforceability and/or request for a study of direct revocation of Resolution 175 of 2018 "by which a request for linking the payment of income tax and complementary taxes to an investment project in the areas most affected by the armed conflict – ZOMAC"; recognize the exception of "loss of enforceability" and, consequently, refrain from requiring EPM and EDEQ to comply with the obligations contained in Resolution 175 of 2018 issued by the ART, due to the lapse of the act within the framework of their competences within the works for taxes mechanism; it is declared that EPM and EDEQ made the timely and full payment of the resources destined for the cancellation of the income tax for the 2017 annuity. An appeal filed by EPM against the order rejecting the claim on the Lands that the act issued by the ART is not subject to judicial review is currently pending, pending the decision on the appeal by the Fourth Section of the Council of State.

It is important to note that since May 24, 2018, the resources for the payment of income tax by EPM and EDEQ taxpayers were deposited in the trust provided for the works-for-taxes mechanism whose income is recognized in favor of the competent national authority and therefore there is no reason to understand that there is a delay in the fulfillment of the tax obligation by the taxpayers. As of December 2023, yields amount to $11,508 million, of which $448 million have already been transferred to the General Directorate of Public Credit and National Treasury.

27.3.3. Contingent Assets

Company	Third party	Pretension	Value
EPM	The Nation Ministry of Health and Social Protection	The Ministry of Health has the legal and constitutional obligation to recognize and cancel the value of the services provided to affiliates in relation to medicines and/or procedures, interventions or elements not included in the Mandatory Health Plan (POS).	21,697
	Miscellaneous Administrative	97 Litigations under $922 with an average of $59.	8,334
	Interamericana de Productos Quimicos S.A. (Interquim S.A.)	That by means of a judgment, the expropriation in favor of EPM of the right of ownership of the property called "Finca Torremolino" located in the village of San Diego, in the municipality of Girardota, owned by Interamericana de Productos Químicos SAS, which will be used for the execution of the project of the Girardota Wastewater Treatment Plant Project, be decreed by judicial means.	9,705
	Constructora Monserrate de Colombia SAS	That the expropriation be decreed by judicial means in favor of Empresas Públicas de Medellín E.S.P. for the Project "Expansion of the Capacity of the Prijunia Distribution in the Western Sector of Medellín-Cadena Occidente Tanque Calazans" property called Lot 7, located in the Altos de Calazans sector, of the Municipality of Medellín owned by the Sociedad Constructora Monserrate de Colombia SAS.	7,656
	Poblado Club Campestre Ejecutivo S.A.	To 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 wastewater from the sanitary basin of the La Honda creek in the Municipality of Envigado, and to compensate EPM for the value of all patrimonial damages that are proven by the damage to the collector that collects and transports the wastewater of the sanitary basin.	4,533
	Notary Office 25 of Medellín	Reimbursement of the amount paid by EPM Ituango S.A. E.S.P., on December 1, 2011, duly indexed, is requested.	3,646
	Municipality of Envigado	Declare the inapplicability by means of which urban sanctions are established for being contrary to the Political Constitution, the Law and the Regime of Residential Public Services. Order that EPM be reimbursed $655,460,000 for the penalty imposed in the administrative acts whose nullity is requested.	1,307
	Corantioquia - Corporación Autónoma Regional del Centro de Antioquia	That the nullity of Article Five of Resolution No. 130 TH - 1302 - 9864 issued by the Tahamies Territorial Director of "Corantioquia" be declared null and void for the fee for the use of surface water for the period 2011, from the Rio Grande source, at a flow of 19.5 m3/sec. To reimburse Empresas Públicas de Medellín E.S.P., the higher amount paid for the fee for the use of Surface Water Dec. 155 - 4742, Hydrological Unit: Magdalena River - Cauca, between January 1, 2011 and December 31, 2011 made by invoice TH - 1927 of April 30, 2012. That Corantioquia be ordered to recognize and pay EPM the legal, current and default interest that has been legally caused; to the payment of the costs and agencies in law to which they may be entitled in accordance with the provisions of Article 188 of Law 1437 of 2011 and other concordant regulations.	834
	SSPD - Superintendence of Residential Public Services	That the official settlement of the Special Contribution for the Year 2022 by the aqueduct service and official settlement of the special contribution be declared partially null and void and that, as a result of the nullity, the right of EPM be restored, the refund of the sum of money corresponding to the highest value cancelled for the aforementioned concept and the interest caused on the sums claimed from the time of payment of the the contribution.	778
	Other	Process for an amount less than $702.	592
Total EPM			59,082
CENS	Corporación Minuto de Dios y Otros	To impose in favor of CENS S.A. E.S.P. the public easement for the transmission of electric energy over the properties; building electrical infrastructure; allow transit through the area; removing crops and other obstacles; construct temporary roads and/or use existing ones; prohibit the planting of trees that may hinder the exercise of the easement and registration of the easement sentence.	2,512
	Consorcio CDE Ltda.	Obtain cancellation of the resources owed in favor of CENS	1,254
	Superintendency of Residential Public Services	Declare the nullity and order the return of the net amount of money, which was paid by CENS S.A. E.S.P. for the sanction in the form of a fine imposed by the SSPD.	1,119
	Other civil, labor, criminal, and administrative proceedings with an amount of less than $20 million	Other processes with an amount of less than $20 million.	250
	Municipality of Medellín	Declare null and void so that any sum that it may pay for the Special Public Works Contribution may be reimbursed to the CENS.	589
	Ministry of Environment and Sustainable Development - MINAMBIENTE	Declare the nullity and order the ANLA to reimburse CENS of any sum that it may pay as sales tax for the acquisition of BT multiplex braided cable for the Rural Electrification project.	317
	Ladrillera Colcucuta Gres SAS	That it declares itself non-contractually liable for the unlawful damage caused to CENS, as a result of the destabilization of the land where a medium-voltage concrete pole is supported, for which it is requested that the defendant be ordered to make payment for the stabilization of the land that supports the 34.5 kV structure.	233
	Nelson Osvaldo Cubides Herrera	It is required to impose an easement strip of 8,681.11 square meters in favor of CENS, on a lot of land called "Lot A alligator island", located in the municipality of San José de Cúcuta and identified with the real estate registration No, 260-101376 of the ORIP of Cúcuta. Property of Mr. Nelson Osvaldo Cubides Herrera.	39
Total CENS			6,313

Company	Third party	Pretension	Value
Waters of Malambo	Municipality of Malambo	A payment order is issued against the Municipality of Malambo - Atlántico and in favor of Aguas de Malambo S.A. ESP. for interest on arrears on the previous principal from December 31, 2012 until the obligation is cancelled.	3,800
	Municipality of Malambo - Subsidies	I request that a Payment Order be issued against the Municipality of Malambo - Atlántico, for the concept of capital and for the value of the default commercial interest from the date on which the default was incurred until the payment of the obligation is made in full at the maximum legal rate allowed.	1,216
Total Waters of Malambo			5,016
AGUNAL	Buenos Aires Consortium and Others	The purpose of the lawsuit is to obtain a declaration of contractual civil liability of the Buenos Aires Consortium and the Sanitation 17 Consortium with respect to the Audit Contract, causing the damages that are the subject of the compensation claim specified in the lawsuit.	4,109
Total AGUNAL			4,109
Regional Waters	Municipality of Chigorodó and Others	Please issue an order for payment in favor of Aguas de Urabá S.A. E.S.P and against the Municipality of Chigorodó, legally represented by Dr. Daniel Segundo Álvarez, in his capacity as mayor, or by whoever takes his place at the time of service of the lawsuit.	2,299
	CORANTIOQUIA	Demand for imposition of easement of sewer utilities.	199
	Jesús Aguirre and Others	To impose in favor of Aguas Regionales S.A. E.S.P. the real right of easement of public sewerage services, over the property in the rural and urban area of the Municipality of San Jerónimo.	250
	Miscellaneous Prosecutors and Administrative Officers	Miscellaneous Prosecutors and Administrative Officers	956
	SSPD - Superintendence of Residential Public Services	Refund of the sum of money corresponding to the highest amount cancelled for the Special Contribution of the year 2018.	70
Total Regional Waters			3,774
Emvarias	DIAN Directorate of National Taxes and Customs	That the official letters issued by the Internal Working Group for the Control of Obligations of the Sectional Tax Directorate of Medellín, by which the requests for correction of the income tax returns were denied, be declared null and void.	1,769
	Superintendency of Residential Public Services	Declare null and void the official notices issued denying the requests for correction of the income tax returns, taxable years 2016, 2017 and 2018.	206
Total Emvarias			1,975
ESSA	SSPD - Superintendence of Residential Public Services	The nullity of the administrative acts issued by the Superintendence of Residential Public Services (SSPD) on the Special Contribution for the year 2016 is declared.	1,735
	Ministry of Labour	Administrative acts issued by the Ministry of Labour are declared null and void. That the defendant be ordered to comply with the judgment in the terms established in Article 192 of the Code of Administrative Procedure and Administrative Litigation.	400
Total ESSA			2,135
CHEC	Jose Alonso Arias Reyes	Imposition of easement	43
	SSPD - Superintendence of Residential Public Services	Declare the nullity and reinstatement of the right	14
	Paula Andrea Botero Diaz	Damages for forgery of a document	9
	Bertha Elena Romero García and Others	Indemnity	6
Total CHEC			72
Total contingent assets - Litigation			82,476

Amounts stated in millions of Colombian pesos-

Estimated payments and receipts

The estimate of the dates on which the Group believes it will be required to make payments related to the contingent liabilities or receive collections on the contingent assets included in this note to the consolidated statement of financial position at the balance sheet date is as follows:

Years	Contingent liabilities	Contingent assets
To one year	1,380,094	32,120
To two years	351,743	15,707
To three years	225,420	9,416
To four years and beyond	3,350,528	44,139
Total	**5,307,785**	**101,382**

Amounts stated in millions of Colombian pesos

Note 28.

Other liabilities

The composition of other liabilities is as follows:

Other liabilities	2023	2022
Non-current		
Amounts received in advance	71,613	76,093
Resources received in administration	17,956	20,230
Collection received for third parties [1]	10	10
Revenue received in advance [2]	9,250	5,617
Government grants	393,549	518,083
Assets received from customers or third parties	19,048	26,066
Other deferred loans	20,810	20,881
Transfer of assets and financial guarantees	29,886	40,874
Total other non-current liabilities	**562,122**	**707,853**
Current		
Amount received in advance	92,078	107,571
Resources received in administration	7,262	17,022
Collection received for third parties [1]	324,364	518,689
Revenue received in advance [2]	1,154,849	645,286
Government grants	119,349	119,505
Assets received from customers or third parties	22	23
Transfer of assets and financial guarantees	8,179	10,248
Total Other Current Liabilities	**1,706,103**	**1,418,344**
Total Other Liabilities	**2,268,225**	**2,126,198**

Amounts stated in millions of Colombian pesos-

[1] *It corresponds to the collections received for contributions of public works and UdeA stamp, from the employees' fund, from the Sanitation fee to Emvarias, Public lighting to the different municipalities of Antioquia, the commercial representation contract that EPM has with ESSA and CHEC and the collections to be classified according to IAS 32.*

[2] *It corresponds to the collections received for leasing, sales of energy service, public lighting, reliability charge, registration of the POIR for aqueduct and sewerage, sales of gas service, agreements made with different entities and compensations from the biller.*

28.1. Deferred reinsurance commissions

The detail of deferred reinsurance commissions, which is included in prepaid income, is as follows:

Deferred income for reinsurance commissions	2023	2022
Initial Balance	14,658	10,466
Additions	35,049	42,622
Amortization	(33,656)	(38,430)
Final Balance	**16,051**	**14,658**

Amounts stated in millions of Colombian pesos -

Corresponds to reinsurance commissions of the subsidiary Maxseguros and is included in other deferred income

See note 28.3

28.2. Government grants

The movement in government grants as of the cut-off date is as follows:

Government grants	2023	2022
Initial Balance	637,589	753,346
Granted during the period	150	317
Recognized in the period result [1]	(119,938)	(119,985)
Foreign currency conversion effect	(4,716)	4,131
Other changes	(186)	(221)
Final Balance	**512,898**	**637,588**
Non-current	393,549	518,083
Current	119,349	119,505
Carrying amount as of December 31	**512,898**	**637,588**

Amounts stated in millions of Colombian pesos -

[1] *Corresponds to the subsidies of Caribemar de la Costa S.A.S E.S.P., received from the Government as compensatory payments for the variations in the collection indicators and energy losses, in accordance with the share purchase agreement signed by Electrificadora del Caribe S.A. E.S.P. - in liquidation (the Seller) and Empresas Públicas de Medellín E.S.P. (the Purchaser) on March 30, 2020.*

The Group has received grants from the Inter-American Development Bank (IDB) for the micro and small business financing program; from Financiera del Desarrollo (FINDETER) as a favorable rate loan for the construction of water and sewage infrastructure; from Fondo para la Reconstrucción del Eje Cafetero (FOREC) for the reconstruction of energy networks as a result of the earthquake in that region of the country.

The Group has not failed to comply with any of the conditions related to the grants.

28.3. Deferred income

The detail of deferred income as of the cut-off date was as follows:

Deferred income	2023	2022
Non-current		
Leases	862	30
Construction contracts	5,382	2,186
Sales	-	264
Sale of energy service	2,941	3,109
Other income received in advance	65	28
Total non-current deferred income	**9,250**	**5,617**
Current		
Leases	118	1,110
Construction contracts	118,320	83,423
Sales [1]	613,219	271,732
Sale of energy service [2]	107,279	99,420
Sale of aqueduct service [3]	137,048	85,648
Sale of sewerage service [3]	81,817	45,826
Sale of cleaning services	-	677
Sale of gas fuel service	3,499	3,511
Other income received in advance [4]	93,549	53,939
Total current deferred income	**1,154,849**	**645,286**
Total deferred income	**1,164,099**	**650,903**

Amounts stated in millions of Colombian pesos -

[1] *The increase is explained by higher amounts received in advance for all services provided, mainly in long-term energy, electricity and regulated market energy contracts.*

[2] *The higher value was in the revenue received in advance under the reliability charge due to a higher value received in the sale of the energy service.*

[3] *This value is recorded annually for the Water Tariff Structure, which applies to the measurement and recognition of the revenue received in advance from the execution. of the "Regulated Works and Investment Plan (POIR)", which is approved by the CRA and generates the obligation to execute the investments, the component of the tariff that corresponds to this obligation should not be recognized until it is executed, IFRS 15 states that an entity shall only recognize revenue when it has satisfied the required or contracted performance obligations.*

[4] *Includes $16,051 (2022: $14,658) for deferred reinsurance commissions of the subsidiary Maxseguros.*

Note 29.

Changes in liabilities for financing activities

The reconciliation of liabilities arising from financing activities is as follows:

Reconciliation of liabilities arising from financing activities 2023	Initial Balance	Statement of cash flows	Changes other than cash		Other changes [1]	Total
			Foreign currency movement	Fair value changes		
Loans and borrowings (see note 21)	29,490,269	2,100,963	(2,103,780)	-	(1,610,512)	27,876,940
Lease liabilities (see note 23)	874,146	(109,816)	-	-	131,468	895,798
Pensional Bonds (see note 23)	648,421	(47,735)	-	-	161,090	761,776
Hedge instruments	(462,667)	-	-	2,089,356	(9,965)	1,616,724
Dividends or surpluses paid	68,799	(1,844,117)	-	-	1,832,462	57,144
Capital subsidies	637,589	150	-	-	(124,842)	512,897
Other funding flows	-	3,696	-	-	(3,696)	-
Total liabilities for financing activities	**31,256,557**	**103,141**	**(2,103,780)**	**2,089,356**	**376,005**	**31,721,279**

Amounts stated in millions of Colombian pesos -

Reconciliation of liabilities arising from financing activities 2022	Initial Balance	Statement of cash flows	Changes other than cash		Other changes[1]	Total
			Foreign currency movement	Fair value changes		
Loans and borrowings (see note 21)	25,765,792	255,296	1,757,858	-	1,711,323	29,490,269
Lease liabilities (see note 23)	726,236	(63,672)	-	-	211,582	874,146
Pensional Bonds (see note 23)	659,443	(61,475)	-	-	50,453	648,421
Hedge instruments	27,970	37,233	-	(328,087)	(199,783)	(462,667)
Dividends or surpluses paid	55,358	(2,023,436)	-	-	2,036,877	68,799
Capital subsidies	753,346	317	-	-	(116,074)	637,589
Other funding flows	-	(3,130)	-	-	3,130	-
Total liabilities for financing activities	**27,988,145**	**(1,858,867)**	**1,757,858**	**(328,087)**	**3,697,508**	**31,256,557**

Amounts stated in millions of Colombian pesos -

[1] *It includes interest paid during the year by $2,223,197 (2022: $1,885,286), which by company policy are classified as operating activities in the statement of cash flows; Interest Caused $2,454,856 (2022: $2,467,617); conversion effect $-1,451,711 (2022 $1,153,055); dividend and surplus ratios $1,832,462 (2022 $2,036,877) and Other $-236,406 (2022 $-73,563).*

Note 30.

Deferred Regulatory Accounts

The balance of the deferred regulatory accounts as of the date of presentation of the consolidated financial statements corresponds to the local regulatory framework applicable to the subsidiary Elektra Noreste

S.A. – ENSA, established by the National Authority of Public Services of Panama (ASEP). This entity is in charge of regulating and establishing the fees that the Company bills its customers. The Company maintains its accounting records in accordance with the uniform system of accounts established by ASEP for electric utilities.

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 deferred regulatory account credit balance in the Group's consolidated statement of financial position and entails a reduction in the next tariff review to be applied to customers. In the same way, any deficit in the cost of energy charged to customers is accumulated as a debit balance in a 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 debit balance represent likely future revenues associated with certain costs that are expected to be recovered from customers through the fee process. Deferred regulatory accounts with credit balances represent likely reductions in future revenue associated with amounts that are expected to be credited to customers through the fee process.

The movement of the regulatory accounts is as follows:

Deferred regulatory accounts	Asset	
	2023	2022
Initial Balance	56,115	136,282
Result for the period	105,156	(97,743)
Foreign currency conversion effect	(23,388)	17,576
Final Balance	137,883	56,115

Amounts stated in millions of Colombian pesos -

Balances associated with regulatory accounts deferred in accordance with the regulation must be recovered or repaid within the following two semesters.

The movement in deferred taxes associated with regulatory accounts is as follows:

Deferred regulatory accounts	Liability	
	2023	2022
Initial Balance	(16,834)	(40,884)
Additions	-	-
Other changes	-	(1,048)
Result for the period	(29,408)	30,625
Foreign currency conversion effect	4,877	(5,527)
Final Balance	**(41,365)**	**(16,834)**

Amounts stated in millions of Colombian pesos -

Cash flows used/generated by regulatory accounts amounted to $(75,748) (2022: $67,117), which, by Group policy, are classified as operating activities in the statement of cash flows.

Note 31.

Income from ordinary activities

For presentation purposes, the Group disaggregates its income from the services it provides, according to the lines of business in which it participates and the way in which management analyzes them. The breakdown of income from ordinary activities is as follows:

Ordinary activities revenue	2023	2022
Rendering of services		
Energy distribution service [1]	24,622,746	22,153,223
Energy generation service [2]	7,692,013	6,368,408
Energy transmission service	508,934	469,994
Energy intersegment eliminations	(1,901,776)	(2,007,900)
Gas fuel service [3]	1,505,667	1,219,000
Sanitation service	1,047,564	923,597
Aqueduct service [4]	1,952,762	1,709,254
Cleaning service	319,086	279,605
Insurance and reinsurance services	58,466	51,274

Financing services	79,732	73,821
Computer services	315	1,204
Contracts with customers for the construction of assets 5	402,209	199,132
Fees	19,582	10,653
Commissions	24,450	22,735
Billing and collection services	48,880	41,600
Financing component 6	669,799	395,055
Other service 7	500,704	378,808
Returns	(653,380)	(764,909)
Total rendering of service	36,897,753	31,524,554
Sale of goods	83,399	55,457
Leases	157,935	148,397
Total	37,139,087	31,728,408

Amounts stated in millions of Colombian pesos

[1] *The increase in the energy distribution and commercialization service is mainly due to: i) the recognition of the tariff option in the national energy subsidiaries in accordance with CREG resolutions 102 and 058 of 2020 for a value of $281,430, as follows: AFINIA $167,563, EPM $52,190, CHEC $42,859, ESSA $9,198, EDEQ 15,080 and CENS -$5,460; in addition, due to an increase in the energy tariff due to the fact that its components have an impact of macroeconomic factors (PPI and CPI), together with a greater amount of energy sold; ii) in the international subsidiaries: mainly by the subsidiary EEGSA due to the net effect of an increase in customers, higher units sold and a decrease in the average selling price; in ENSA, an increase due to greater demand for energy from the commercial sector and government and an increase in the sale price; in DELSUR the increase is due to a combined effect of higher sales to the industrial sector, decrease in the price of the tariff and lower energy losses, and in COMEGSA due to a greater amount of energy sold and an increase in the average sale price.*

[2] *Power generation service increased year-over-year, mainly in EPM, CHEC and ESSA due to higher stock market and long-term power sales, along with higher prices given the increases in the IPP and TRM that impact the reliability charge.*

[3] *The increase in the fuel gas distribution and marketing service is caused by higher rates due to an increase in the TRM and macroeconomic factors (CPI and IPP), in addition, by growth in demand from the regulated market, increase in sales to thermal power generation plants and other marketers.*

[4] *The increase in the aqueduct service is basically explained by EPM due to the greater users and increase in indexation fees; in ADASA due to higher users, consumption and tariffs in both the regulated and non-regulated market and due to the growth of inflation; and in Hidrosur due to the higher rates for the sale of water in Catán, impacted by the UF (development unit), which in turn was affected by inflation.*

[5] *The increase compared to the previous year corresponds mainly to TICSA's subsidiaries by $132,895 due to the fact that there is a greater number of projects in execution that are being completed, among which the construction of a wastewater treatment plant for Diageo México Comercializadora, S.A. stands out. (tequila don Julio) in Jalisco, Mexico. Likewise, the projects entered into with Gilbane Alberici Construcciones México S. de R. L. de C.V., Brown Forman and Seltzer Nava (entered into with Compañía Cervecera de Coahuila S. de R.L. de C.V.), which have had greater execution during the year 2023 and in ADASA for $82,817 for the performance of sanitary constructions to the company Copec and the construction of sections of track to the company Ferrovial for works on the Route of the Loa River.*

[6] *The increase is explained by a combined effect of the subsequent valuation at amortized cost of the financing of public services, due to the increase in the reference rate for the collection of interest and additionally, by the financing component of the tariff option, in the national energy subsidiaries, as follows: AFINIA $263,043, EPM $108,750, CENS $34,839, CHEC $16,575, ESSA $19,036, and EDEQ $9,580.*

[7] *The variation is mainly due to EPM in the Shared Services Center, for greater technical support services specialized in hardware and software and in others for billing and collection to third parties; in the subsidiary ADASA for $72,733 corresponding to other services related to the ADASA Quinchamale-Radomiro Tomic Codelco interconnection, which is part of the sanitary concession and the construction of infrastructure to third parties*

In the Group, performance commitments are met and measured on a cyclical basis, as the Group is mainly engaged in the provision of public services (regulated and non-regulated market, long-term contracts and secondary market) and the provision of services related to public services to other agents in the sector (reliability charge, firm energy, AGC). These public services are delivered to the user on a permanent basis, but consumption is measured, and income is recognized on a periodic, typically monthly basis.

The Group recognized the following values in the period, for contracts in force at the cut-off date:

Construction Contracts

The method used to determine the degree of progress of construction contracts is the of the resource.

The Group recognized the following values in the period, for the contracts in force at the cut-off date described in the preceding paragraph:

2023	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	Income recognized during the period corresponding to the prior period liability	Outstanding value of performance obligations that are not met prior year
Contract 1 - FAER Contract GGC-105	-	-	1	1	-	1
Contract 3 - Ecopetrol Agreement	-	-	1,848	1,734	162	1,734
Contract 4 - Government Contract	-	-	134	134	-	134
Contract 6 - FAER Administration Fee GGC 105 and 313 - Construction contracts	-	1,867	4	4	-	4
Contract 7 - FAER Contracts 2019 Third Party Resources	-	1,584	8,052	2,815	8,052	-
Contract 8 - FAZNI Contract 2020	96	96	48	23	48	-
Contract 9 - OHL Arrangement	50	50	-	-	-	-
Contract 10 -FAER 2019- Administration	1,613	-	-	-	-	-
Construction contracts - TICSA	-	-	66,386	136,716	-	66,386
Construction contracts - agreements	476	235	281	3,336	-	281
Contract- Line construction contracts	2,869	1,227	8,211	12,760	-	8,211
Construction contracts - ADASA	163,342	119,672	36,664	6,628	22,399	14,265
Total	**168,446**	**124,731**	**121,629**	**164,151**	**30,661**	**91,016**

Amounts stated in millions of Colombian pesos

2022	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	Income recognized during the period corresponding to the prior period liability	Outstanding value of performance obligations that are not met prior year
Contract 1 - FAER Contract GGC-105	-	-	1	1	1	1
Contract 3 - Ecopetrol Agreement	-	-	1,895	1,848	29	1,848
Contract 4 - Government Contract	-	-	134	134	23	134
Contract 6 - FAER Administration Fee GGC 105 and 313 - Construction contracts	-	-	4	4	-	4
Contract 7 - FAER Contracts 2019 Third Party Resources	614	-	30,041	8,052	333	8,052
Contract 8 - FAZNI Contract 2020	-	96	2,296	48	764	48
Contract 9 - OHL Arrangement	52	50	-	-	47	-
Contract 10 -FAER 2019-Administration	782	1,613	-	-	782	-
Construction contracts - TICSA	-	-	32,644	66,386	-	-
Construction contracts - agreements	879	476	940	281	-	-
Contract- Line construction contracts	-	2,869	-	8,211	5,582	-
Construction contracts - ADASA	-	163,341	-	36,665	-	-
Total	**2,327**	**168,446**	**67,954**	**121,629**	**7,560**	**10,087**

Amounts stated in millions of Colombian pesos

Other contracts with customers clients

2023	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	Income recognized during the period corresponding to the liability of the prior period.
Uniform terms contract for regulated services(1)	3,057,619	3,034,498	135,544	229,164	474
Unregulated market -MNR or large customers(2)	143,709	20,133	95,275	102,517	94,599
XM representation contract (3)	59,068	12,050	-	-	-
Other contracts with customers	-	-	11,419	5,800	281
Total	**3,260,397**	**3,066,681**	**242,239**	**337,481**	**95,354**

Amounts stated in millions of Colombian pesos -

2022	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	Income recognized during the period corresponding to the liability of the prior period.
Uniform terms contract for regulated services(1)	1,815,300	3,057,619	51,945	135,544	1,474
Unregulated market -MNR or large customers(2)	206,245	143,709	22,357	95,275	7,241
XM representation contract (3)	8,011	59,068	-	-	-
Other contracts with customers	-	-	166	11,419	402
Total	**2,029,556**	**3,260,397**	**74,468**	**242,239**	**9,117**

Amounts stated in millions of Colombian pesos -

[1] *The purpose of this contract is to define the uniform conditions under which the companies of the EPM Group provide public home services in exchange for a price in money, which will be set according to the current tariffs and in accordance with the use given to the service by users, subscribers or property owners. Hereinafter, the User, who, by benefiting from the services provided by the companies, accepts and accepts all the provisions defined herein.*

The asset variation in the uniform terms contracts for energy service was explained in the distribution segment, which includes the recognition of the tariff option in the amount of $281,430 in EPM and in the national energy subsidiaries.

The liabilities in the contracts of uniform conditions mainly include the provision of the Regulated Works and Investment Plan (POIR) for the Water Provision and Solid Waste Management services, in accordance with the provisions of the Commission for the Regulation of Drinking Water and Basic Sanitation in resolution CRA 688 of 2014, for which, an advance receipt of income contributed by EPM and its subsidiaries: Aguas Regionales and Aguas de Malambo was recognized.

[2] *Resolution 131 of December 23, 1998 of the Energy and Gas Regulatory Commission (CREG) establishes the conditions for the supply of energy and power for large consumers and indicates in Article 2 the power or energy limits for a user to contract the supply of energy in the competitive market; The aforementioned resolution allows the conclusion of contracts with large consumers to establish by mutual agreement the prices of energy and power supply; The purpose of the contract is to supply energy and electrical power to the consumer, as an unregulated user, to meet their own demand.*

[3] *It corresponds to the representation contract with XM, which manages the Colombian Wholesale Energy Market, attending to the commercial transactions of market agents.*

The Group expects to recognize the income for performance obligations that are not met during the next accounting period, as most of it corresponds to standard terms contracts for residential utilities, which have a duration of less than one year.

Note 32.

Other Income

The detail of other income is as follows:

Other income	2023	2022
Recoveries [1]	190,970	200,792
Government grants	119,939	119,985
Indemnities [2]	16,453	61,587
Other ordinary income [3]	33,248	57,883
Valuation of investment properties	11,116	20,753

Utilization [3]	14,581	20,498
Excesses [3]	3,393	5,626
sheet sales [3]	1,292	694
Past service cost of defined benefit plan	1,708	473
Reversal of impairment loss on right-of-use assets [4]	34	117
Photocopies	1	1
Total	**392,735**	**488,409**

Amounts stated in millions of Colombian pesos

[1] *The decrease is mainly due to lower recoveries of the contingent consideration provisions of Espíritu Santo, environmental and social and costs and expenses.*

The value of effective recoveries in the Group amounted to $122,400 (2022: $83,150) and non-effective recoveries to $68,570 (2022: $117,643), disclosed in the statement of cash flows.

[2] *The variation is mainly due to EPM because the previous year compensation was received for the generation segment for loss of profits from Termosierra for $24,122 and compensation for damage arising from the incident at the Playas plant for $26,592; while in 2023 the compensation for consequential damages was $10,829, and for loss of profits $364.*

[3] *Values disclosed in the statement of cash flows as actual income corresponding to money inflows.*

[4] *Loss of impairment of property, plant and equipment, right-of-use assets and intangible assets is disclosed under the reversal item.*

Note 33.

Profit on sale of assets

The detail of the profit on sale of assets is as follows:

Income from sale of assets	2023	2022
Profit on disposal of properties, plant, and equipment [1]	2,314	5,515
Profit on derecognition of rights-of-use [2]	2,580	67
Profit on disposal of investment properties [1]	-	70
Total	**4,894**	**5,652**

-Amounts stated in millions of Colombian pesos-

[1] *Non-cash items that are disclosed as part of the item, result from disposition of property, plant and equipment, rights of use, intangibles and investment properties of the statement of cash flows.*

[2] *Non-cash item and is disclosed as part of the item, income from withdrawal of property, plant and equipment, right-of-use assets, intangible assets and investment property of the statement of cash flows.*

Note 34.

Costs for the provision of services

The detail of the costs for the provision of services is as follows:

Costs for services rendered	2023	2022
Bulk purchases [1]	7,071,262	5,645,044
Stock exchange purchases [2]	6,702,473	5,333,171
Use of lines, networks, and duct	2,609,284	2,433,359
Personal services [3]	1,466,868	1,197,373
Orders and contracts for other services [4]	1,414,118	1,127,718
Depreciation [11]	1,331,544	1,057,828
Maintenance and repair orders and contracts [5]	811,241	649,746
Cost of distribution and/or commercialization of natural gas	682,195	767,620
Consumption of direct inputs [6]	500,841	190,490
Licenses, contributions, and royalties [7]	324,513	270,915
Materials and other operating costs	288,848	258,038
Insurance [8]	256,958	159,408
Amortization [11]	236,388	220,854
Commercial and financial management of the service [9]	212,226	321,373
Generals	210,537	218,110
Fees	171,035	174,734
Taxes and fees	136,798	115,515
Other [10]	119,070	138,361
Impairment of Property, Plant and Equipment [11] [12]	115,995	41,349
Connection cost	99,037	93,357
Amortization of rights-of-use [11]	82,362	62,979
Public services	55,722	40,703
Commercialized goods	37,642	31,101
Leases	34,827	35,274
Impairment of intangible assets [11] [12]	28,495	47,298
Costs associated with transactions in the wholesale market	19,858	18,085

Depletion [11]	17,713	16,679
Liquefied natural gas	15,785	15,506
Impairment of rights-of-use [11] [12]	4,755	-
cost of losses in the provision of the aqueduct service	4,628	3,929
Write-down of inventory [11] [13]	2,762	895
Gas compression	682	649
Total cost for services rendered	**25,066,462**	**20,687,461**

Amounts stated in millions of Colombian pesos

[1] *Variation explained by the increase in: Afinia $596,037, DECA $320,495, EPM $176,157, CHEC $77,437, CENS $30,893, ESSA $14,413 and EDEQ $11,428 due to higher units acquired at a higher average purchase rate, mainly in the energy distribution and marketing segment.*

[2] *This increase was explained by higher purchases of energy on the stock exchange at higher prices in the subsidiaries: EPM $612,740, ESSA $277,091, ENSA $262,887, CENS $172,149, CHEC $67,779, EDEQ $40,495 and Afinia $26,156.*

[3] *The increase was explained by the salary increase which is impacted by the CPI, and temporary vacancies hired, the subsidiaries that contributed the most were: EPM with $153,466, Afinia $21,796, EPM Mexico $21,535, ESSA $19,838, ADASA $14,538, CHEC $10,460, CENS $5,599, EDEQ $4,152, DECA $3,902 and ENSA $3,199.*

[4] *This increase was mainly explained by the international subsidiaries TICSA $101,669 and ADASA $95,697 due to higher construction services to third parties, installation and uninstallation services in EPM $26,097 and TICSA $13,763, and cleaning services in Emvarias for $17,046.*

[5] *Increase mainly explained in EPM $84,906, ADASA $28,020, DECA $14,837, Afinia $12,195 and ESSA $10,525 due to higher maintenance and repair costs mainly in lines, networks and ducts, land and constructions and buildings.*

[6] *This increase was explained by higher chemical inputs, energy and fuels in EPM $262,412, ADASA $32,478, and National Waters $6,672.*

[7] *Increase explained mainly in EPM for $39,375 due to the contributions of the environmental law associated with the power generation service, and Fazni; Afinia $8,102 and CHEC $3,610.*

[8] *This item increased mainly in EPM, mainly the costs related to comprehensive insurance.*

[9] *This decrease is explained in Afinia by $133,567.*

[10] *This increase was mainly explained by EPM $8,013, Delsur $7,558 and Emvarias $3,059, especially property taxes, stamps and other taxes.*

[11] *It corresponds to non-effective costs.*

[12] *It is disclosed as part of the impairment of value of property, plant and equipment, right-of-use and intangible assets of the statement of cash flows.*

[13] *It is revealed under the heading Write-down of Net Inventories in the Cash Flow Statement.*

Note 35.

Administrative costs

The detail of the administration costs is as follows:

Administration costs	2023	2022
Staff costs		
Wages and salaries [1]	760,998	646,486
Social security expenditure [2]	180,942	156,061
Pension expenses [9 10]	63,423	54,395
Other long-term benefits	19,472	7,516
Employee interest rate benefits	13,776	11,625
Other post-employment benefit plans other than pensions [9]	7,657	5,811
Termination benefits [8]	4,092	3,429
Total personnel costs	**1,050,360**	**885,323**
General Expenses		
Provision for contingencies [3 9 10]	873,906	115,934
Taxes, contributions and fees [4]	406,202	327,243
Commissions, fees and services [5]	226,136	164,427
Intangible [6]	110,884	88,260
Maintenance	103,572	93,890
Intangibles Amortization [9]	97,165	64,069
Depreciation of property, plant and equipment [9]	78,809	72,831
General insurance	63,390	51,235
Other general expenses	54,931	54,206
Surveillance and security	43,921	35,556
Other Miscellaneous Provisions [7 9 10]	33,022	44,642
Advertising and propaganda	32,110	23,549
Christmas lighting	31,227	27,980
Using rights Amortization [9]	30,196	29,643
Provision insurance and reinsurance [9]	23,126	511
Promotion and dissemination	22,431	18,414
Licenses and voiseways	19,988	13,889
Fuels and lubricants	17,473	8,369
Guest toilet, coffee shop, restaurant and laundry	16,631	14,163
Public services	17,291	17,077
Communication and transport	11,101	10,530
Leases	9,832	7,355
Procedural costs	9,710	4,555
Materials and supplies	8,249	6,071
Print, publications, subscriptions and affiliations	8,238	6,963
Learning contracts	7,959	6,501
Legal expenses	7,731	7,857
Studies and projects	7,724	13,338
Repairs	6,807	1,994
Provision Dismantling, withdrawal and rehabilitation [8 9 1]	6,329	750
Travel expenses and viatics	5,333	4,049
Information processing	5,081	4,822
Cultural events	3,917	2,424
Organization of events	3,019	3,149
Management contracts	2,450	2,488
Photocopies	2,357	2,271
Industrial safety	1,870	1,134
EAS technical reserve [9 10]	1,510	752
Provision of guarantees [9 10]	-	91,859
Total Overhead	**2,411,628**	**1,444,750**
Total	**3,461,988**	**2,330,073**

- Amounts stated in millions of Colombian pesos -

[1] *The increase was explained by the salary increase which was impacted by the CPI, with the subsidiaries contributing the most: EPM $59,640, Deca $14,151, ADASA $11,518, CHEC $10,845, Afinia $6,132 and ESSA $5,750.*

[2] *The variation was the result of the salary increase mainly in EPM and DECA.*

[3] *Increase associated with the arbitration award against EPM for the penalty clauses of enforcement for non-compliance with milestones in Hidroituango.*

[4] Increase mainly explained by EPM $44,949, Afinia $8,459, ESSA 8,451, Gesa $4,584 and CHEC $4,068 due to higher industry and commerce tax, tax on financial movements and control and auditing fee.

[5] Increase mainly in EPM $44,599, National Waters $6,618, CHEC $4,656 and Afinia $3,431.

[6] Increase explained in EPM by greater implementation of projects compared to the previous year.

[7] This decrease was mainly explained in EPM by the environmental penalty procedure, the provision for the Ituango contingency and other miscellaneous provisions.

[8] Increase explained in EPM by the recognition of the provision for asset dismantling associated with the entry into operation of the Ituango hydroelectric plant, and by the forced investment of the La Sierra, Porce II and Porce III power plants.

[9] Corresponds to non-actual expenditure

[10] It is disclosed under provisions, post-employment and long-term defined benefit plans in the statement of cash flows.

Note 36.

Other Expenses

The detail of other expenses is as follows:

Other expenses	2023	2022
Loss on disposals of property, plant and equipment [1 6 7]	57,530	51,537
Contributions in non-corporate entities [2]	21,437	15,679
Other ordinary expenses [3]	17,671	34,174
Effective interest financing services [4]	17,643	29,705
Arbitral awards and extrajudicial conciliations	4,618	3,562
Sentencing	1,766	483
Loss on derecognition of rights-of-use [5 7]	1,140	80
Loss due to changes in fair value of investment properties [4]	1,104	370
Donations	915	808
Loss on disposal of inventories [5 6]	885	1,128
Taxes assumed	416	168
Loss on sale of property, plant and equipment [5]	307	501
Loss on disposal of intangible assets [5 7]	3	316
Total	**125,435**	**138,511**

Amounts stated in millions of Colombian pesos

[1] This increase was mainly explained by EPM $12,657 due to higher losses due to asset obsolescence in the power generation and marketing segments.

[2] It corresponds to the contributions made to the EPM Foundation.

[3] The decrease is explained by the subsidiary Afinia $11,971 and Adasa $2,357.

[4] The decrease is explained by Afinia and corresponds to the valuation of the amortized cost of the financing already billed for energy utilities.

[5] Corresponds to non-actual expenditures.

[6] It is revealed under the item Write-down of Net Inventory Value of the Statement of Cash Flows.

[7] It is disclosed in the income from retirement of property, plant and equipment, right-of-use assets, intangible assets and investment properties of the statement of cash flows.

Note 37.

Ingresos y gastos financieros

37.1. Finance Income

The detail of finance income is as follows:

Financial income	2023	2022
Interest Income:		
Bank deposits [1] [3]	195,003	121,835
Interest on trade receivables and default interest [3]	53,527	71,617
Financial assets at amortized cost [3]	7,997	13,706
Gain from valuation of financial instruments at fair value [2] [5]	396,216	86,315
Other finance income [3]	61,051	48,541
Restricted funds [3]	9,605	37,122
Gain on trust rights [4] [5]	77,670	16,690
Gain from valuation of financial instruments at amortized cost [5]	1,200	1,282
Resources received in administration [3]	853	403
Finance Lease [3]	1,143	337
Gain on monetary readjustment [3]	409	55
Total financial income	**804,674**	**397,903**

Amounts stated in millions of Colombian pesos

[1] *The variation originates mainly from: i) EPM for $31,934, due to a higher available balance in the deposits of financial institutions, in addition to the increase in bank rates, ii) Maxseguros for $11,448, iii) ADASA for $6,082, and iv) ESSA for $4,270.*

[2] *Increase caused by the fair value measurement of investments classified in financial instruments, which was mainly due to the allocations of fixed-income securities and market behavior that has presented significant valuations, mainly in i) EPM for $290,978, ii) Aguas Nacionales for $6,890, iii) national energy subsidiaries for $9,642 and iv) EPM Inversiones for $2,427.*

[3] *It is disclosed under the interest income and income item of the statement of cash flows.*

[4] *The increase in the income on trust rights corresponds mainly to EPM for $47,350 and is due to the behavior of the market, which has presented significant valuations and is thus reflected in the temporary investments of the portfolio.*

[5] *It is disclosed in the statement of cash flows under the heading of valuation of financial instruments and hedge accounting.*

37.2. Finance expenses

The detail of finance expenses is as follows:

Finance expense	2023	2022
Interest expense:		
Interest on lease obligations [2]	74,097	63,280
Other interest expense [2]	49,292	26,584
Total interest	**123,389**	**89,864**
Long-term external financing operations [1 2]	1,152,143	854,249
Long-term internal financing operations [1 2]	669,338	639,523
Financial instruments for hedging purposes [1 2]	768,530	327,762
Short-term internal financing operations [1 2]	188,697	105,572
Short-term external financing operations [1 2]	31,495	41,445
Total interest expense on other financial liabilities that are not measured at fair value through profit or loss [2]	5,653	1,166
Other financial expenses:		
Interest on financial liabilities and valuation losses on investments and other assets [3]	319,782	215,351
Commissions different of amounts included in determining the effective interest rate [2]	8,055	9,950
Total finance expenses	3,267,082	2,284,882

- Amounts in millions of Colombian pesos -

[1] *The variation in financing operations originates mainly from EPM, AFINIA, ESSA, ENSA and CENS due to higher indebtedness and increase in interest rates. In EPM due to financial expenses that ceased to be capitalized after the entry into operation of the Ituango hydroelectric project in November 2022, to new disbursements in dollar currency, to the variable interest rate present in some credit agreements, such as the Term SOFR rate, which presented upward variations during 2023, starting at levels of 4.80 %, reaching a yearly high of 5.50 % and closing in December at 5.16 %. Additionally, due to the reduction of exchange rate risk through contracted financial hedges, going from interest rates in dollars to Colombian pesos.*

[2] *It is disclosed under interest expense and fees in the statement of cash flows.*

[3] *For presentation purposes in the statement of cash flows: $205,393 (2022: $129,647) are disclosed under the heading of profit or loss from valuation of financial instruments and hedge accounting and $114,389 (2022: $85,712) are disclosed under provisions for tax obligations, insurance and reinsurance and financial update.*

Note 38.

Net foreign exchange difference

The effect on foreign currency transactions is as follows:

Net foreign exchange difference	2023	2022
Income from exchange difference		
Own position		
For goods and services and others	63,850	24,110
For liquidity	22,423	334,775
Trade receivables	22,208	293,527
Provisions	32,460	-
Other adjustments from exchange difference	141	12,098
Financing operation		
Gross income	2,511,368	10,498
Hedge debt	-	1,311,409
Total Income from exchange difference	**2,652,450**	**1,986,417**
Expenses by exchange difference		
Own position		
For goods and services and others	(17,942)	(76,529)
For liquidity	(102,879)	(158,048)
Trade receivable	(217,300)	(62,872)
Provisions	-	(28,399)
Other adjustments from exchange difference	(13,557)	(262)
Financing operation		
Gross expense	(406,350)	(1,763,393)
Hedge debt	(1,723,234)	-
Total expenses from exchange difference	**(2,481,262)**	**(2,089,503)**
Net foreign exchange difference	**171,188**	**(103,086)**

Amounts stated in millions of Colombian pesos -

The accumulated net income due to the difference in exchange amounts to $171,188, the main income corresponds to the difference in exchange of the debt in dollars for $2,511,368 and the expense for restatement of the debt $1,723,234, associated with the accumulated revaluation of the period of the Colombian peso, which to date amounts to 20.54 % (2022: devaluation of 20.82 %)

The rates used for currency translation in the consolidated financial statements are:

Currency	Currency Code	Direct conversion to USD as of December 31		Closing exchange rate as of December 31		Average exchange rate	
		2023	2022	2023	2022	2023	2022
United States Dollar	USD	-	-	3,822.05	4,810.20	3,948.21	4,788.49
Quetzal	GTQ	7.83	7.84	488.31	577.92	504.62	568.58
Mexican Peso	MXP	16.92	20.11	225.90	225.39	229.94	221.06
Chilean Peso	CLP	884.59	957.93	4.32	4.73	4.52	4.81

Note 39.

Gain on equity investments

The effect of the share in equity investments is as follows:

Share of result of equity investments	2023	2022
Dividends and participations [1]	178,223	77,059
Result on a business combination	(86)	-
Result on sale of equity investments, net	(19)	83
Impairment of investments in subsidiaries, associates and joint ventures - (See note 8)	-	(6,420)
Total share of result of equity investments	**178,118**	**70,722**

Amounts stated in millions of Colombian pesos -

[1] *Includes dividends from investments classified as financial instruments (see note 13. Other financial assets).*

Note 40.

Income tax

40.1. Fiscal provisions

The applicable and current tax provisions establish the following:

- The general income tax rate applicable to domestic companies is 35 % for the 2023 taxable year, the same for the 2022 tax year. Taxable income from occasional income tax is taxed at the rate of 15 %.
- For subsidiaries in Guatemala, the tax is determined by the Regime on Profits from Lucrative Activities, which consists of applying the taxable income tax rate determined from the accounting profit. From the period 2020 onwards, the income tax rate is 25 %. The tax is paid through quarterly payments due with a settlement by December 31; or by the Optional Simplified Regime on Income from Gainful Activities, consisting of applying the tax rate on monthly taxable income. From 2014 onwards, the tax rate is 5 % on the first Q.30,000 (in unrounded amounts) and 7 % on the surplus. The tax is paid by withholdings or, failing that, by direct payment to the Superintendence of Tax Administration, with the due authorization of the Treasury; In addition, the Income Tax rules establish a 5 % tax on the distribution of dividends and profits to both resident and non-resident shareholders.

Likewise, the tax legislation provides for a Regime on Capital Income, Capital Gains and Losses, which establishes a rate of 10 % for income from movable and real estate capital, as well as for net capital gains.

- For subsidiaries in El Salvador, 30 % for companies with taxable income greater than US$150,000 and 25 % for those that do not exceed this limit; for subsidiaries in Mexico a tax rate of 30 % and for subsidiaries in Chile the nominal rate is 27 % for 2018 and subsequent periods. Panamanian subsidiaries have a general rate of 25 % and for companies in which the State has a shareholding of more than 40 %, a rate of 30 %.
- On June 11, 2008, EPM and the Nation (through the Ministry of Mines and Energy) signed a legal stability contract for the Power Generation activity for a period of 20 years. Among the stabilized tax rules are: ordinary income tax rate (33 %), wealth tax, presumptive income, tax cost of fixed assets, depreciation deduction, special deduction of 40 % for investments in productive real fixed assets.
- Special treatments are considered to be those granted by the Colombian Holding Companies Regime (CHC), a special tax regime for national companies that have as one of their activities the holding of securities, investment or holding of shares or participations in Colombian or foreign companies or entities.

40.2. Reconciliation of the effective rate

The reconciliation between the applicable tax rate and the effective rate and composition of income tax expense for the periods 2023 and 2022 is as follows:

Income and complementary taxes	2023	%	2022	%
Profit before taxes	5,002,351		5,803,410	
Nominal income rate		35%		35%
Income tax nominal rate	1,750,823		2,031,194	
Effects of changes in tax rates	-	0%	91,729	2%
Elimination in consolidated results	106,453	2%	(271,034)	(4%)
Tax effect of tax rate changes in foreign subsidiaries	(166,223)	(3%)	(47,770)	(1%)

Effect of permanent tax differences:		**(4%)**	**(82,177)**	**(2%)**
Dividend income	(188,321)	3%	196,813	3%
Fiscal income	156,171	0%	28,982	0%
Non-deductible provisions	17,811	6%	24,402	0%
Loss on derecognition of assets	291,080	0%	5,177	0%
Equity method	9,305	0%	0	0%
Impairment of investments in subsidiaries	-	0%	371,339	6%
Non-taxed dividends	(198,476)	(4%)	(138,352)	(2%)
Compensation for consequential damages	(619)	0%	(8,516)	0%
Exempt income	(31,879)	(1%)	(99,322)	(2%)
Special deduction of real productive fixed assets	(199,041)	(4%)	(310,639)	(5%)
Net result of other permanent differences	(19,803)	0%	(39,224)	(1%)
Adjustment of tax rate difference (current/deferred tax)	(212,869)	(4%)	(112,837)	(2%)
Tax deductions	6,006	0%	49,258	1%
Occasional gains	136	0%	105	0%
Adjustments of income from prior years	19,423	0%	46,795	1%
Tax Offsets	-132	0%	(108,794)	(2%)
Income tax at effective rate	**1,513,076**	**30%**	**1,610,791**	**28%**
Detail of current and deferred expenses				
Current tax	1,705,722	34%	1,763,460	30%
Deferred tax	(189,569)	(4%)	(152,669)	(2%)
Income tax	**1,516,153**	**30%**	**1,610,791**	**28%**

- Amounts in millions of Colombian pesos -

Among the most important items in the reconciliation of the effective rate during the years 2023 and 2022 and which contributed to it being 5 and 7 points, respectively, below the nominal rate, was the special deduction of productive real fixed assets in the parent company by virtue of the application of the Legal Stability contract. Another important point in this purification was the treatment of exempt income granted to dividends received by EPM, parent company of foreign subsidiaries, an exemption allowed under the Colombian Holding Companies Regime (CHC).

Likewise, it can be observed in the purging, other items that affected the tax calculated at the nominal rate and that cause said theoretical

tax to be modified as a result of the application of the tax provisions; These include the recognition of accounting provisions and impairment of investments, without tax effects.

Relevant events that implied an increase in the effective rate for 2023 compared to 2022 were: a decrease in investments in productive real fixed assets, lower tax discounts, lower offsets of tax losses, an increase in accounting provisions that are not deductible for tax purposes and a decrease in the impairment of investments recognized in 2022.

40.3. Income tax recognized in profit or loss

The most significant components of income tax expense at the cut-off date are:

Income tax	2023	2022
Current income tax expense	1,686,431	1,825,459
Adjustments recognized in the current period related to income tax of prior periods	19,423	46,795
Tax benefits from tax loss, tax credits or temporary differences used in the period	(132)	(108,794)
Current income tax expense, PPUA, Reserves and rectifications		
Total current income tax	**1,705,722**	**1,763,460**
Deferred tax		
Net deferred tax income related to the origination and reversal of temporary differences	(189,569)	(244,399)
Net deferred tax income related to changes in tax rates or laws	-	91,730
Total deferred taxes	**(189,569)**	**(152,669)**
Income tax	**1,516,153**	**1,610,791**

- Amounts in millions of Colombian pesos -

The rates used for the determination of deferred tax for subsidiaries in Colombia are:

Year	2023	2024	2025
Income tax	31%	35%	35%
Occasional gain	15%	15%	15%

The rates used for the determination of the deferred tax are:

35 % for the year 2023 and subsequent periods. EPM's Power Generation segment has an income tax rate and supplementary taxes of 33 %, stabilized for 20 years by virtue of the legal stability contract EJ-04 of March 31, 2008, modified by ANOTHER YES EJ-01 of June 4, 2010. This rate is only used in cases where, by law, the rental rate in Colombia is increased above 33 %.

In the case of assets whose profit is expected to be realized as an occasional gain, a rate of 15 % is used.

27 % for temporary differences generated in the subsidiaries in Chile, 30 % and 25 % for the subsidiaries in Panama and Mexico and 25 % for the other subsidiaries in Central America.

40.4. Temporary differences that do not affect deferred taxes

Deductible temporary differences and unused tax losses and credits, for which the Group has not recognized deferred tax assets, are detailed below:

Concept	2023	2022
More than one year and up to five years	14,746	21,813
More than five years	1,739	1,737
Without time limit	4,432	4,432
Unused tax losses	**20,917**	**27,982**
Without time limit	568,742	558,206
Unused tax credits	**568,742**	**558,206**
More than five years	6	565
Excess of presumptive income over ordinary net income	**6**	**565**
Total	**589,665**	**586,753**

The deductible temporary differences and the unused losses, tax credits and excesses of presumptive income over ordinary net income, correspond to unused tax losses by Aguas de Malambo S.A. E.S.P. of $3,726 million (2022 $4,796), EPM Inversiones S.A. for $1,374 (2022 $1,374), Hidroecológica del Teribe S.A. for $14,746 (2022 $21,813); unused tax credits by Empresas Públicas de Medellín E.S.P. of $568,742 million (2022 $558,147), Aguas de Malambo S.A. E.S.P. for $59 million (2022 $59) and excesses of presumptive income over ordinary net income not used by EPM Inversiones S.A. of $6 million (2022 $565).

The amount of the current income tax asset or liability is as follows

	2023	2022
Current income tax asset or liability		
Total non-current income tax liabilities		
Income tax [1]	(33,351)	(33,351)
Total income tax liability	**(33,351)**	**(33,351)**
Total current income tax liability		
Income tax	(368,646)	(500,396)
Total income tax assets	**894,782**	**697,964**
Balances in favor of income tax	894,782	697,964
Total income tax assets	**492,785**	**164,218**

- Amounts in millions of Colombian pesos -

[1] *Corresponds to the works for taxes liability of EPM and EDEQ, which represents the possibility for companies to partially pay income tax and complementary taxes by financing and executing public works of social transcendence in the areas most affected by the conflict - ZOMAC - instead of transferring the resources to the DIAN. This possibility arose with Law 1819 of 2016, was mainly added by Laws 1955 and 2010 of 2019 and was regulated by Decrees 1915 of 2017 and 1147 of 2020.*

This liability is backed by a mercantile trust contract, which is being executed as the works under this program are being built.

40.5. Income tax recognized 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	2023			2022		
	Gross	Tax effect	Net	Gross	Tax effect	Net
Reclassification of property, plant and equipment to investment property	13,439	(1,107)	12,332	13,439	(1,107)	12,332
Re-measurement of defined benefit plans	(103,206)	33,314	(69,892)	96,942	(32,408)	64,534
Equity investments measured at fair value through equity	2,399,948	(199,716)	2,200,232	2,939,381	(309,124)	2,630,257
Share in other comprehensive income of associates and joint ventures	184,696	-	184,696	17,422	-	17,422
Cash flow hedges	(681,565)	229,617	(451,948)	(1,128,472)	478,445	(650,027)
Hedges of net investments in foreign operations	6,098	(2,064)	4,034	(277,654)	-	(277,654)
Translation of financial statements of foreign operations	841,492	-	841,492	1,969,017	-	1,969,017
Total	**2,660,902**	**60,044**	**2,720,946**	**3,630,075**	**135,806**	**3,765,881**

- Amount stated in millions of Colombian pesos -

40.6. Deferred tax

The detail of deferred tax is as follows:

Tax Deferred	2023	2022
Active Deferred Tax	1,519,458	1,218,248
Passive deferred tax	(2,572,738)	(2,378,569)

- Amounts in millions of Colombian pesos -

40.6.1. Active Deferred Tax

Deferred tax assets	Initial balance	Changes included in the OCI	Net changes included in profit or loss	Effect by conversion adjustments	Other	Foreign currency conversion effect	Final Balance
Assets	**3,896,506**	**1,539**	**839,049**	**(38)**	**(1,073)**	**(136,208)**	**4,599,775**
Property, plant and equipment	1,213,512	(275)	37,911	(38)	10,775	(12,722)	1,249,164
Intangible assets	4,886	-	19,165	-	(104)	(1,150)	22,797
Investments and derivative instruments	-	-	-	-	-	-	-
Trade receivables	-	-	-	-	-	-	-
Investments and derivative instruments	212,534	1,632	111,465	-	(528)	(1,326)	323,777
Accounts Receivable	1,784,120	(3)	434,263	-	(10,190)	(12,435)	2,195,754
Cash and cash equivalents	1,651	-	505	-	-	-	2,156
Inventories	7,946	-	(370)	-	(0)	(252)	7,324
Other assets	360,613	184	182,264	-	(809)	(108,105)	434,147
Rights-of-use - Deferred tax assets	311,245	-	53,847	-	(217)	(217)	364,657
Liabilities	**(2,679,152)**	**(291,524)**	**37,247**	**(384)**	**(216,583)**	**70,080**	**(3,080,317)**
Loans and borrowings	1,063,845	(12)	1,753	(384)	163	(1,786)	1,063,579
Trade payables	16,589	-	285	-	196	(296)	16,774
Employee benefits	281,307	33,055	(25,770)	-	6,550	(9,323)	285,819
Derivatives	1,411	(311,623)	621,080	-	-	-	310,867
Provisions	316,130	67	49,895	-	(960)	(7,737)	357,396
Other liabilities	200,657	(33)	73,253	-	5	(19,058)	254,823
Elimination effect against assets	(4,559,090)	(12,977)	(683,250)	-	(222,537)	108,280	(5,369,574)
Total deferred tax assets	**1,217,353**	**(289,985)**	**876,296**	**(422)**	**(217,656)**	**(66,128)**	**1,519,458**

- Amounts in millions of Colombian pesos -

40.6.2. Deferred tax liabilities

Deferred tax liabilities	Initial balance	Changes included in the OCI	Net changes included in profit or loss	Effect by conversion adjustments	Other	Foreign currency conversion effect	Final Balance
Assets	**6,572,861**	**(265,360)**	**519,814**	**14,318**	**(661)**	**(148,970)**	**6,688,926**
Property, plant and equipment	4,306,281	(31)	193,701	-	(294)	(41,421)	4,458,235
Intangible assets	299,852	129	8,141	-	171	(51,973)	256,320
Investments and derivative instruments	26,774	-	2,029	-	-	-	28,803
Investments and derivative instruments	499,728	(265,391)	124,413	14,318	(326)	(23,212)	349,529
Accounts Receivable	1,066,606	(32)	121,450	-	7	(14,543)	1,173,488
Cash and cash equivalents	1,651	-	-	-	-	-	1,651
Inventories	19,019	5	68	-	(21)	(3,831)	15,240
Other assets	48,354	(40)	21,863	-	5	(13,990)	56,192
Rights-of-use - Deferred tax assets	304,597	-	48,149	-	(202)	-	352,544
Liabilities	**(4,204,470)**	**46,313**	**166,907**	**-**	**(224,613)**	**96,600**	**(4,119,264)**
Loans and borrowings	35,680	97,328	740,411	-	(6)	(1,692)	871,722
Trade payables	5,605	0	7,404	-	(3)	(1)	13,005
Employee benefits	254,937	(37,585)	32,738	-	(859)	(5,980)	243,251
Derivatives	820	(430)	3,175	-	-	(40)	3,525
Provisions	31,348	(79)	38,014	-	(1,184)	(9)	68,089
Other liabilities	26,229	56	28,415	-	(18)	(3,963)	50,719
Elimination effect against assets	(4,559,090)	(12,977)	(683,250)	-	(222,543)	108,286	(5,369,574)
Total deferred tax liabilities	**2,368,390**	**(219,047)**	**686,721**	**14,318**	**(225,274)**	**(52,370)**	**2,572,738**

- Amounts in millions of Colombian pesos -

40.6.3. Temporary Differences

The most significant concepts on which there were temporary differences are the following:

In assets, the greatest impact arises from the temporary differences in property, plant and equipment, due to the difference between the accounting and tax bases, generated, among others, by the recognition of the attributed cost, the adjustments for tax inflation and by the application of different useful lives and methods of depreciation. transactions involving the purchase and sale of assets between companies of the EPM Group that involved the recognition of unrealized accounting profits, on which the companies individually considered had to pay tax. In accounts receivable from the commercial portfolio, it corresponds to the impairment of the portfolio due to the difference in the purging of the portfolio impairment under the tax standard and the portfolio impairment under the accounting standard under the expected loss method, in addition, there were temporary differences due to the effect of the valuation at amortized cost of short-term loans between economic related parties.

Recognized deferred tax liability for tax losses at Aguas de Antofagasta of $358,389 (2022 $424,819).

Regarding liabilities, the items that impacted the calculation of the deferred tax were, for the most part, the settlement of the provision corresponding to pension bond installments, the actuarial calculation in pensions and in the pension commutation of EADE, and credits and loans for the valuation at amortized cost of bonds, securities issued, Short-term loans and credits.

The revaluation effect experienced by the Colombian currency during the last taxable period close to 20.54 %, generated a decrease in the deferred tax associated with the difference in unrealized exchange of the debt in foreign currency, which has no tax effects and will only be evidenced at the time of settlement or partial payment of the obligations. based on the difference in exchange actually made, in accordance with the provisions of Articles 269 and 288 of the Tax Code.

In the case of items that do not have future tax consequences, such as tax liabilities and financial returns generated in the plan assets of EPM, CHEC and Emvarias, no deferred tax was generated.

In addition, in the operating contract of the Aguas Claras wastewater treatment plant, the valuation of the account receivable recorded by Aguas Nacionales compared to the valuation made by EPM to the financial lease under accounting standards, is asymmetrical to the extent that different financial assumptions and different accounting bases are used.

Temporary differences on which no deferred tax was generated were, inter alia, investments in subsidiaries, associates and joint ventures, in accordance with paragraph 39 of IAS 12; likewise, in the items that do not have future tax consequences, as is the case of the assets of the plan, of EPM, CHEC and Emvarias because they are exempt income in accordance with the provisions of numeral 7 of article 235-2 of the Tax Statute.

In Aguas de Malambo, no deferred tax was recognized for the years reported, taking into account that in the current period tax losses increased and that, according to the projections analyzed, it is foreseen that its recovery would be postponed beyond 2024, therefore, there is no certainty of its recovery.

The approval of dividends in the EPM Group after the filing date and before the financial statements were authorized for publication, does not generate income tax consequences as it is the policy for national subsidiaries that only untaxed profits and reserves are distributed. The income tax effects that could be generated by dividends decreed by foreign subsidiaries are eliminated with the entry into force of Article 77 of Law 2010 of 2019, since these distributions are considered exempt income from capital in application of the Colombian Holding Companies (CHC) regime.

New regulations for subsidiaries in Colombia

Main amendments incorporated by Law 2277 of December 13, 2022, which adopts a tax reform for equality and social justice and dictates other provisions:

- With the entry into force of Law 2277 of 2022, for legal entities, the general Income Tax rate remained at 35 % as of the taxable year 2023 and subsequent years.

  For taxpayers whose main economic activity is the generation of electricity through water resources, a surcharge of 3 % was established for taxable years 2023 to 2026, applicable to legal entities that obtain an income equal to or greater than 30,000 UVT in the taxable year, a threshold that will be calculated in aggregate for activities carried out by related persons according to the criteria provided for in article 260-1 of the Tax Code. The rule also establishes that the surcharge is subject to an advance of 100 % of its value.

  The Constitutional Court, through Judgment C-389 of 04/10/2023, declared the enforceability of the surcharge, conditioning it to be applied exclusively to the activity of generating energy from water resources.

  On the other hand, the same Law created a minimum income tax rate for tax residents in Colombia, which in the case of taxpayers whose financial statements are subject to consolidation, is called the Group Cleaned Tax Rate (TTDG), which cannot be less than 15 % and if it is, The tax must be adjusted, following the formula enshrined in the law.

  EPM's Power Generation activity, having a legal stability contract in force until June 11, 2028, will be able to continue with the application of the stabilized rules in the terms in which they were in 2008, the year in which the contract was signed, as long as the changes that have occurred after the signing of the contract are unfavorable to the interests of the aforementioned activity of the company. generation. If, on the other hand, the amendments to the stabilized rules are favourable, the new rules may be applied. The concept of whether a change is favourable or unfavourable should be reviewed on a case-by-case basis in accordance with other rules.

- Article 259-1 of the Tax Statute establishes a limit to the tax benefits and incentives listed therein and determines that they may not exceed 3 % per year of the ordinary net income before deducting the special deductions contemplated in the regulation, and the value resulting from applying the formula indicated in the same article must be added to the value to be paid for income tax.
- Profits from the sale of shares registered on a Colombian Stock Exchange, held by the same beneficial owner, do not constitute income or occasional gain when such sale does not exceed 3 % of the outstanding shares of the respective company during the same taxable year.
- 100 % of the industry and commerce tax, notices and boards paid, can be taken as deductible in the income tax.
- Article 12-1 of the Tax Statute, on effective place of administration, determines that foreign companies must comply with tax obligations in Colombia, if the necessary commercial and management decisions are made in the country to carry out the day-to-day activities of the company or entity.
- Article 256 of the Tax Statute determines that the discount on income tax for investments made in research, technological development or innovation is 30 % of the value of the investment. At the same time, it establishes that the costs and expenses that give rise to the discount may not be capitalized or taken as a cost or deduction again by the same taxpayer.
- Regarding the presumptive income rate, Article 90 of Law 2010 of 2019 amended Article 188 of the Tax Statute to provide for a rate of zero percent (0 %) as of the 2021 taxable year. On the other hand, article 191 of the same Statute includes within the exclusions of presumptive income the companies of residential public services.
- Article 689-3 of the Tax Statute establishes the benefit of audit for the taxable periods 2022 to 2026, to determine that the private settlement of taxpayers of income tax and complementary taxes will be final, if the increase in net income tax in relation to that of the immediately preceding year is 35 % or 25 % and that within six (6) or twelve (12) months following the filing of The tax return,

respectively at the above percentages, has not been notified of a summons to correct or special requirement or special summons or provisional assessment.

This audit benefit does not extend to VAT and Withholding Tax returns that coincide with the period of the Income Tax Return.

Other tax aspects

- In the Single Registry of Final Beneficiaries RUB, which is part of the Single Tax Registry, RUT, contemplated in articles 631-5 and 631-6 of the Tax Statute and in DIAN Resolutions 000164 of 2021, 00037 and 001240 of 2022, natural persons who finally own or control, directly or indirectly, a legal person or other structure without legal personality must be reported.

  The regulation provides that decentralized entities in which the capital is 100 % public, as is the case of EPM, are not obliged to identify, obtain, preserve, supply and update in the RUB the information dealt with in the associated regulations and that this exception does not extend to mixed economy companies.

- The general sales tax rate is 19 %.

- The provision of domestic public services of energy, gas, water and sewerage are excluded from sales tax.

  The meters associated with the provision of these services are subject to sales tax, since they are not expressly excluded and this has been stated by the tax authority in its doctrine.

  For electric vehicles and their components, parts and accessories, as well as for components and spare parts of the gas vehicle plan, the fee is 5 %.

  Article 192 of Law 1819 of 2016 provided that the VAT rate in contracts in which a public entity is a contracting party will be the one corresponding to the date of the resolution or award act, or signing of the respective contract, and will vary whenever the contract is modified or added with economic content.

In accordance with the provisions of Article 258-1 of the Tax Code, VAT paid on the acquisition, import, construction and formation of productive real fixed assets, including the services necessary to put the asset in a condition of use, and assets acquired through leasing, may be taken as a deduction from income tax.

The Fourth Chamber of the Council of State, in Judgment 27421 of September 2023, clarified that the taxpayer may split this discount into several periods, to the extent that the regulation did not provide for any prohibition in this regard.

- Dividends received by domestic companies that are income that do not constitute income or occasional gain are subject to a 10 % withholding tax on income, which will be transferable and attributable to the resident natural person or investor resident abroad.

  Through the Issuance of Law 1943 of 2018, the Colombian Holding Companies (CHC) regime was incorporated into the legal system, which can be used under certain requirements, national companies that have as one of their main activities the holding of securities, the investment or holding of shares or participations in Colombian and/or foreign companies or entities, and/or the management of such investments. The regulation provides, among other aspects, that dividends or participations distributed by entities not resident in Colombia to a CHC will be exempt from income tax and will be declared exempt from capital income.

  Dividends distributed by CHCs to a resident natural person or to a resident legal entity paying income tax shall be taxed at the dividend income tax rate, in accordance with Articles 242 and 242-1 of the tax code.

  Dividends distributed by a CHC to a natural or legal person not resident in Colombia shall be understood as income from a foreign source in accordance with paragraph e) of article 25 of the same law.

  Companies under the CHC income tax regime, including decentralized public entities, are not subject to withholding tax on dividends distributed by Colombian companies.

The undercapitalization rule of Article 118-1 of the Tax Statute limits the deductibility of interest paid when there is over-indebtedness, specifying that such limitations only apply with respect to debts contracted between economic related parties. For the purposes of deducting interest, the taxpayer must be able to demonstrate to the DIAN, by means of certification from the resident or non-resident entity acting as creditor, that the credit or credits do not correspond to debt transactions with related entities through a guarantee, back-to-back, or any other transaction in which substantially such act as creditors. It should be noted that this provision shall not apply to cases of financing of transport infrastructure or public service projects, provided that such projects are carried out by special purpose companies, entities or vehicles.

- In relation to the transfer pricing regime, our tax system establishes that all taxpayers of income tax and complementary taxes, who carry out transactions with foreign economic affiliates or located in free zones, must comply with the arm's length principle at the time of making such transactions; This implies that trades must be made at market prices. The same treatment must be given to any transaction with persons or entities located in Non-Cooperating Jurisdictions of Low or No Taxation and with entities subject to Preferential Tax Regimes, whether or not they are economically related.
- As of the 2015 taxable year, taxpayers of Income Tax and Supplementary Taxes, subject to this tax with respect to their income from domestic and foreign sources, and their assets owned inside and outside the country, who have assets abroad of any nature, will be required to file the annual declaration of assets abroad. when the equity value of the foreign assets held on January 1 of each year is greater than two thousand (2,000) UVT.
- As for the Industry and Commerce tax, it is generated by the direct or indirect performance of an industrial, commercial or service activity in a municipal jurisdiction, either permanently or occasionally. The Framework Law that governs it is Law 14 of 1983, Law 56 of 1981 and

Law 1819 of 2016. As it is a land tax, it is up to the municipal councils to issue agreements for its application. Its taxable base is determined on income and the tax is settled according to the rates established for each activity by the municipalities.

The transportation of Natural Gas is exempt from the Industry and Commerce Tax.

The taxable base of the industry and commerce tax in the distribution of natural gas is the gross margin of commercialization of the fuel, understood as the difference between the revenues from fixed charges, consumption and use of networks, and the costs of purchasing and transporting gas.

The activity of power generation is regulated by Law 56 of 1981 and is taxed in those municipalities where the generation plant is located. The rate corresponds to a few pesos for each kilowatt installed.

With regard to the contribution of public works contracts, it was established by Legislative Decrees of 1992 and 1993, and has been extended and amended by Laws and Regulatory Decrees. The last amendment was introduced by Law 1738 of December 18, 2014, which in Article 8 granted it permanent status. All natural or legal persons and public-private partnerships that sign public works contracts with public law entities or enter into contracts to add to the value of existing ones are liable to pay the aforementioned contribution in favor of the Nation, department or municipality, depending on the level to which the contracting public entity belongs.

The current regulations have established the withholding mechanism by the contracting public entities, including EPM, deducting the value of the contribution from each account that it cancels to the contractors, including advances.

Through Agreement No. 093 of 2023 issued by the Council of the Science, Technology and Innovation District of Medellín, the rate for public works contracts or their additions was kept in force at 5 %.

- A relevant aspect for the operations carried out by the companies of the EPM Group is related to stamps, which have been proliferating in recent years. Article 32 of Law 2155 of 2021 amended Article 14 of Law 2052 of 2020 and provided that for a maximum of two years from January 1, 2022, the national government must promote before the Congress of the Republic modifications in the field of stamps that impose limits on the requirement of this tax.

  In terms of invoicing, EPM is an electronic biller for sales concepts other than residential public services, since the equivalent document is issued for them; likewise, and as part of the billing system, the electronic payroll is issued, the support document for purchases to non-billed and the POS document for sales of natural gas vehicles. The most recent changes are found in DIAN Resolution 1092 of July 2022, which enshrines the limit of 5 UVT to issue POS documents as of February 1, 2023 and Decree 442 of March 2023 that amended Chapter 4 of Decree 1625 of 2016 Single Regulatory in Tax Matters, Highlighting the change for the support document for purchases to non-obligated to invoice, which must contain "the date of operation" and the "date of generation".

  The Organization is advancing the implementations required by Article 23 of Resolution 165 of 2023 issued by the DIAN, which adopts, among others, Version 1.9 of the technical annex of Electronic Invoicing, for the generation and transmission of the electronic equivalent document and adjustment notes, bearing in mind the deadlines set by the tax authority to be met between February and May 2024 according to the established calendar for each type of taxpayer.

  The new subjects who choose to issue the electronic equivalent document and its adjustment notes after the established schedule must do so once they have completed the authorization procedure that is developed in the electronic computer service of Electronic Invoicing of the Special Administrative Unit of the Directorate of National Taxes and Customs -DIAN.

Note 41.

Related party disclosures

EPM, parent company of the EPM Group, is an industrial and commercial company of the State, decentralized of the municipal order, whose sole owner is the Municipality of Medellín. Its capital is not divided into shares.

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 are considered related parties of the Group.

The balances and transactions between the companies of the EPM Group have been eliminated in the consolidation process and are not disclosed in this note. The total amount of the transactions carried out by the Group with its related parties during the corresponding period is presented below:

Transactions and balances with related parties	Income [1]	Costs/ Expenses [2]	Amounts receivable [3]	Amounts payable [4]	Guarantees and collateral received [5]
Associates:					
2023	74,721	45,797	11,769	8,341	-
2022	62,838	43,277	13,105	8,947	-
Key management personnel of the company or its controlling company:					
2023	2	32,109	1,368	3,632	903
2022	5	50,941	875	4,137	903
Other related parties:					
2023	189,909	109,863	124,510	11,968	-
2022	207,939	100,406	94,440	14,474	-

- Amounts stated in millions of Colombian pesos -

[1] *Revenues generated from transactions with associated companies correspond to the sale of services related to information and communication technologies, information services and complementary activities related and/or related to them. Revenues generated with other related parties correspond mainly to the sale of energy, rendering of public services and financial services. The detail of the income obtained by the Group from its related parties is as follows:*

	Revenues	2023	2022
Associates	Sale of goods and services	60,424	53,057
	Interest	5	54
	Other	14,292	9,728
Key management personnel of the company or its controlling company	Sale of goods and services	2	5
Other related parties	Sale of goods and services	128,971	46,375
	Interest	331	67
	Fees	16	703
	Other	60,591	160,793
Total income from related parties		**264,632**	**270,782**

- Amounts stated in millions of Colombian pesos -

[2] *It corresponds to costs and expenses arising from transactions involving the purchase of energy, acquisition of goods and services, including services related to communications and complementary activities, with associates and other related parties. The detail of the costs and expenses incurred by the Group with its related parties is as follow:*

	Costs and Expenses	2023	2022
Associates	Purchase of goods and services	43,310	41,160
	Fees	2,270	2,105
	Other	217	12
Key management personnel of the company or its controlling company	Purchase of goods and services	6,193	16,902
	Fees	19,814	11,595
	Other	6,102	22,444
Other related parties	Purchase of goods and services	29,608	36,558
	Interest	-	2
	Fees	9,626	3,759
	Other	70,629	60,087
Total costs and expenses incurred with related parties		**187,769**	**194,624**

- Amounts stated in millions of Colombian pesos -

[3] *The Group maintains accounts receivable with its related parties arising from the sale of energy, provision of public services, sale of services associated with information and communications technologies, information services, among others. The Group carries out the portfolio rating under criteria that allow prioritizing the management of its recovery through the dependencies in charge of the portfolio or collection entities. Collection applies based on the billing cycle with respect to household utilities.*

[4] *The payment policy, for the most part, is 30 days from the date of filing the invoice.*

[5] *The guarantees and guarantees received correspond to mortgage guarantees 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 subject matter and conditions.

Transactions and Balances with Related Government Entities

Surpluses paid during the year were $1,748,005 (2022: $1,850,776), ordinary were $910,787 (2022: $1,009,514) and extraordinary were $837,218 (2022: $841,262).

Remuneration to the Board of Directors and key staff of the Group:

The remuneration of the members of the Board of Directors and key personnel of the Group's management is as follows:

Concept	2023	2022
Wages and other short-term employee benefits	48,396	48,522
Pensions and other post-employment benefits	1,234	978
Other long-term employee benefits	1,583	1,193
Remuneration to key management personnel	**51,213**	**50,693**

- Amounts stated in millions of Colombian pesos -

The amounts disclosed are those recognized as a cost or expense during the reporting period for compensation of key management personnel

Note 42.

Capital management

The Group's capital includes indebtedness through the capital market, commercial banking, development banking, development agency, and multilateral banking, at a national and international level.

The Group manages its capital with the objective of planning, managing, and evaluating the attainment of financial resources in the national and international financial markets, for strategic investments and investment projects, through different options that optimize the cost, that guarantee the maintenance of adequate financial indicators and adequate risk rating and minimizes financial risk. For the above, it has defined the following capital management policies and processes:

Financing management: financing management includes the performance of all long-term credit operations, to guarantee the timely availability of the resources required for the normal operation of the company and to materialize investment and growth decisions, trying to optimize financing costs.

The Group is not subject to external capital requirements.

The Group has not made any changes to its capital management objectives, policies, and processes during the period ended as of the cut-off date, nor has it been subject to external capital requirements.

In order to deal with changes in economic conditions, the Group implements proactive mechanisms for managing its financing, enabling different financing alternatives to the extent feasible, so that, when it is required to execute any long-term credit operation, it has access to the source that is available at each market moment in competitive conditions and with the necessary opportunity.

The values that the Group manages as capital are presented below:

Capital management	2023	2022
Bonds and loans		
Commercial bank loans	10,344,517	9,053,293
Multilateral bank loans	776,947	1,163,243
Development bank loans	2,262,090	2,292,111
Bonds and securities issued	14,493,386	16,866,622
Other loans	-	115,000
Total debt	**27,876,940**	**29,490,269**
Total capital	**27,876,940**	**29,490,269**

- Amounts stated in millions of Colombian pesos -

Note 43.

Financial risk management objectives and policies

The Group is exposed to financial risk, which is defined as the possibility of an event occurring that negatively affects financial results, including market risk, liquidity risk, credit risk, and operating risk.

Market 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 can impact, for example, financial statements, cash flow, financial indicators, contracts, the viability of projects, and investments.

Credit risk refers to the possible breach of payment obligations by third parties arising from contracts or financial transactions entered into.

Liquidity risk is the scarcity of funds and the inability to obtain the resources at the time they are required to meet contractual obligations and execute investment strategies. The scarcity of funds leads to the need to sell assets or contract financing operations in unfavorable market conditions.

Lastly, operational risk, from a financial point of view, is defined as deficiencies or failures in processes, technology, infrastructure, human resources, or the occurrence of unforeseen external events.

The Comprehensive Risk Management Department aims to lead the definition and implementation of the strategy for comprehensive risk management, in order to achieve adequate protection and assurance of the assets, resources, and interests of EPM Group.

The Group's policy is to manage the risks that affect its activity and its environment, adopting the best practices and international standards of Comprehensive Risk Management (GIR), as a way of facilitating the fulfillment of the purpose, strategy, business objectives, and purposes, both of statutory and legal origin. It has an information system that facilitates comprehensive risk management, guarantees the confidentiality, availability, and reliability of the information, and allows analysis and monitoring of risks and improvement plans. It has implemented a comprehensive risk management system and has a methodology for the identification, analysis, evaluation, control and monitoring of risks, among which are those associated with money laundering and financing of terrorism, which allows reducing vulnerability, proposing, and implementing effective mechanisms for the proper development of business, processes, projects, and contracts. As assessment criteria, there are assessment tables for the consequences of the materialization of risks and probability tables, which are applicable at the different levels of management defined in the methodological guide for comprehensive risk management.

The comprehensive risk management monitoring and review activity is aligned with the management follow-up process established in the Group, in order to propose and implement improvement actions. The established monitoring and review scheme evaluates, among others, the following aspects:

- The comprehensive risk management implementation strategy.
- Changes in the internal and external context that imply making adjustments in the treatment of identified risks or that generate new risks.
- The variation of risks in terms of frequency, probability and consequence.
- The evaluation criteria of the probability and consequence of the risks.
- The implementation and effectiveness of treatment plans.

The Group manages the financial risks associated with the different management levels, for which it identifies the risks within the market, liquidity and credit groups that are classified in the category of financial risks, quantifies their impact and implements mitigation strategies.

Reform of the reference interest rate on financial instruments

The Company carried out the evaluation of the concepts that would be affected by the change in the reference rate, resulting in currently having instruments indexed at the libor rate in dollars, such as: credit liabilities and contracts with suppliers.

Risks

The group is negotiating with financial entities the transition scheme to alternative reference rates. This process will require the updating of the contractual clauses of the credits indexed to LIBOR, a process that for the company will require the authorization of the Ministry of Finance and Public Credit.

43.1. Market risk

43.1.1. Price risk

Market risk is the risk that the fair value of the future cash flows of a financial instrument may fluctuate due to changes in market prices. The Group has identified that the financial instruments affected by market risk include:

- Cash and cash equivalents
- Fiduciary Assignment

Other Financial Assets:

- Fixed income securities
- Investments pledged or pledged as collateral
- Swaps

The methods and assumptions used in the development of the sensitivity analysis consist of:

For cash and cash equivalents, fixed income securities and investments pledged or pledged as collateral, the methodology used to measure market risk is the Value at Risk, which indicates the value of the maximum loss that an investment portfolio could present due to changes in market variables, this is presented with a confidence level of 99 % and with a time horizon of one day. To quantify the VaR, the volatility of the risk factors must be calculated, for which three methodologies are considered: historical volatility, EWMA volatility (exponential weighting) and Garch volatility. Subsequently, exposure and risk by risk factor are calculated and finally the consolidated maximum expected loss is obtained.

Market price sensitivity is detailed below:

Exposed Value	Daily VaR COP
471,639	575
Values in millions of COPs	

43.1.2. 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 EPM Group has identified that the financial instruments affected by interest rate risk include:

- Cash and cash equivalents
  - Fiduciary Assignment
- Other Financial Assets:
  - Fixed income securities
  - Investments pledged or pledged as collateral
  - Swaps
- Credits & Loans
- Trade receivables and other accounts receivable

Concentration of interest rate risk arises when there are large individual exposures and when significant exposures are presented to counterparties whose probability of default is determined by factors such as economic sector, currency and credit ratings. Interest rate risk management seeks to conserve capital and maintain or increase profitability. The EPM Group has defined policies in terms of risks and interest rates, through the identification of risks, the determination of the position of the rates

and the simulation of possible hedging strategies. This supports decision-making, which is aimed at maintaining the position or covering it, and then an analysis of the results of the executed strategies is carried out.

Interest Rate Sensitivity Analysis

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. Holding all other variables constant, pre-tax profit/loss and Grupo EPM's equity would be affected by changes in variable interest rates, as follows:

	Increase/decrease in basis points	Exposed Value	Financial effect	
			In profit before taxes	In equity
2023				
Financial assets measured at fair value with changes in profit or loss				
Investments at fair value through profit or loss	100			
	(100)			
Financial liabilities measured at amortized cost				
Loans and borrowings	100	12,035,382	(120,354)	(96,283)
	(100)	12,035,382	120,354	96,283
Financial liabilities measured at fair value through other comprehensive income				
Derivative instruments	*100*	*104,381*	*(59,153)*	*(47,323)*
	(100)	*104,381*	*59,153*	*47,323*
2022				
Financial assets measured at fair value with changes in profit or loss				
Investments at fair value through profit or loss	100	924,496	(2,921)	(2,337)
	(100)	924,496	2,921	2,337
Financial liabilities measured at amortized cost				
Loans and borrowings	100	10,356,764	(103,568)	(82,854)
	(100)	10,356,764	103,568	82,854
Financial liabilities measured at fair value through other comprehensive income				
Derivative instruments	*100*	*1,827,615*	*(57,485)*	*(45,988)*
	(100)	*1,827,615*	*57,485*	*45,988*

- Amount in millions of Colombian Pesos -

The Group considers the sensitivity analysis to be representative of interest rate risk exposure.

43.2. Exchange Rate Risk

Foreign exchange risk is the risk that the fair value or future cash flows of a financial instrument may fluctuate as a result of changes in exchange rates.

The EPM Group has identified that the financial instruments affected by foreign exchange risk include:

- Cash and cash equivalents
- Other Financial Assets:
  - Fixed income securities
  - Swaps
- Credits & Loans
- Trade receivables and other accounts receivable
- Loans to economic affiliates

Exposure to foreign exchange risk relates first of all to financing activities in a currency other than the functional currency and to the hedging transactions contracted. The Group manages its foreign exchange risk through hedging operations over a medium-term horizon. It is the policy of the EPM Group not to close speculative hedging operations, so the conditions of the hedging derivative instruments replicate the conditions of the underlying in order to maximize the effectiveness of the hedging. The EPM Group hedges its exposure to exchange rate fluctuations using different hedging instruments, including Swaps, Forwards and Options at different maturities.

On July 1, 2021, the group approved the application of hedge accounting for net investments in foreign businesses. Hedging seeks to reduce the volatility of other comprehensive income by the method of participation of the effect by translation of financial statements. Net investment hedging applies to the Group's investments in foreign currency, in this case, investments in subsidiaries with a dollar-denominated functional currency and has as a hedging instrument an equivalent amount of dollar-denominated debt. The Group designated net investments in HET, PDG and

MaxSeguros as a hedged item and an amount of debt denominated in USD equivalent to the value of the investment, with a total value of USD 342 million, as a hedging instrument.

Exchange Rate Sensitivity Analysis

The following table indicates the sensitivity to a possible reasonable change in exchange rates of $100 pesos in the currency against the U.S. dollar without considering the effect of hedge accounting. The impact originates from the change in monetary and non-monetary assets. All other variables being equal, pre-tax profit/loss and the Group's equity would be affected by changes in exchange rates, as follows:

	Increase/decrease in pesos	Exposed amount	Financial effect	
			In profit or loss before income taxes	In equity
2023				
Financial assets measured at fair value with changes in profit or loss				
Investments at fair value through profit or loss	100			
	(100)			
Financial liabilities measured at amortized cost				
Loans and borrowings	100	17,180,943	(449,522)	(359,617)
	(100)	17,180,943	449,522	359,617
Financial liabilities measured at fair value through other comprehensive income				
Derivative instruments	*100*	*8,328,247*	*217,900*	*174,320*
	(100)	*8,328,247*	*(217,900)*	*(174,320)*
2022				
Financial assets measured at fair value with changes in profit or loss				
Investments at fair value through profit or loss	100	1,527,045	31,746	25,397
	(100)	1,527,045	(31,746)	(25,397)
Financial liabilities measured at amortized cost				
Loans and borrowings	100	17,981,705	(373,824)	(299,060)
	(100)	17,981,705	373,824	299,060
Financial liabilities measured at fair value through other comprehensive income				
Derivative instruments	*100*	*7,576,065*	*157,500*	*126,000*
	(100)	*7,576,065*	*(157,500)*	*(126,000)*

- Amount in millions of Colombian Pesos -

The Group considers that the sensitivity analysis is representative of the exposure to exchange rate risk.

43.3. Credit risk

It is the risk that one of the counterparties does not comply with the obligations arising from a financial instrument or purchase contract and this results in a financial loss. The Group has identified that financial instruments affected by credit risk include

- Cash and cash equivalents
- Other Financial Assets
- Accounts receivable and other accounts receivable

Cash and cash equivalents and other financial assets

For credit risk management, the EPM Group assigns quotas per issuer, by counterparty and intermediary, considering the financial, risk and fundamental analysis of the entities, emphasizing the equity support of the shareholders. The methodology considers the characteristics of the investment portfolio and the applicable regulations. The concentration of credit risk is limited as it complies with the provisions of the business rules manual for treasury operations. The description of the factors that define the concentration of risk is detailed below:

- The quotas are updated quarterly based on the latest available financial statements of the entities analyzed.
- When the value of the consolidated portfolio of temporary investments exceeds the equivalent of 35,000 legal minimum monthly wages (SMMLV), no more than 20 % of this value should 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 to carry out transactions, but may not be considered as eligible issuers.

- Banked brokerage firms, domiciled in Colombia, that have at least the second best counterparty risk rating and that have a minimum technical equity of 35,000 SMLMV

Finally, the steps taken to avoid the concentration of risk are aimed at establishing, analyzing, monitoring and controlling the quotas, for which it controls the current quotas and their occupancy status. On the other hand, the justifications related to the need to temporarily exceed the quotas are submitted for approval.

The investments referred to are made up of banking establishments that have the following risk rating, depending on the term of the investment, as follows:

- For investments with a term equal to or less than one (1) year, the banking establishment must have a current rating corresponding to the highest category for the short term in accordance with the scales used by the rating companies that grant it and have at least the second best rating in force for the long term used by the respective companies;
- For investments with a term of more than one (1) year, the banking establishment must have the second best rating in force for the long term according to the scale used by the rating companies and the maximum rating for the short term according to the scale used for this term.
- Options, forwards and swaps: The EPM Group is exposed to the risk that a counterparty does not recognize the right and in order to mitigate it, the risk level of each of the entities with which a transaction is estimated to be carried out is previously evaluated.

Accounts receivable measured at amortized cost and other accounts receivable.

The EPM Group is exposed to the risk that users or customers who use public services may fall into arrears or non-payment of such services. Accounts receivable from utility debtors are classified into two large groups: those arising from late payment and the other group corresponds to financing

or payment agreements with customers that are carried out as a portfolio recovery strategy or to link new customers.

At the end of each period, EPM Group companies evaluate the performance and value of accounts receivable to determine whether there is objective evidence that the portfolio is impaired and to identify its potential impact on future cash flows. The criteria used to determine that there is objective evidence of an impairment loss are:

- Customers' failure to pay
- It is known or has evidence that the client enters into business restructuring processes or economic insolvency or liquidation of the company.
- There are social disturbances, public order or natural disasters, which, according to experience, are directly correlated with the non-payment of collection bills.

In order to avoid an excessive concentration of non-payment risk, the companies of the EPM Group have developed and implemented various strategies to mitigate this risk, including:

- Persuasive collection by making phone calls and sending letters to customers with the support of specialized collection agencies.
- Segmentation of customers that allow us to identify those at higher 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 exposed capital.
- Offsetting of accounts receivable against accounts payable by the EPM Group with supplier customers.
- When the above strategies do not generate satisfactory results, coercive collection actions are carried out by suspending and cutting off the service.
- If the above strategies do not yield satisfactory results, the portfolio is collected through the courts.

Likewise, we are trying to expand the portfolio of products to customers in such a way as to facilitate the payment of debt, such as prepaid energy and water.

As mentioned, the EPM Group makes payment or financing agreements, which are carried out as a portfolio recovery strategy or to attract new customers. These entitle you to fixed or determinable payments and are included in current assets, except for those with a maturity of more than 12 months from the date of generation of the balance sheet, in which case they are classified as non-current assets.

In general terms, blank promissory notes with letters of instruction are constituted to guarantee customer debts, and when the value of the financing exceeds amounts pre-established in the internal regulations, real or bank guarantees are requested, and in cases where the customer is a state entity, resources that the EPM Group proceeds to pledge. Upon agreement, it collects from the client.

For the management of the credit risk of accounts receivable in its different stages (risk cycle), methodologies, procedures, guidelines and business rules are incorporated, complying with commercial and financial policies, in order to achieve a comprehensive and sustainable vision of customers.

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:

Concept	2023	2022
Cash and cash equivalents	3,303,818	1,998,196
Investments in debt instruments	477,149	676,154
Using the * Accounts receivable	3,178,999	1,958,605
Other Accounts receivable A/s.	564,339	290,135
Maximum exposure to credit risk	**7,524,305**	**4,923,090**

- Amount in millions of Colombian Pesos -

43.4. Liquidity risk

It refers to the possibility that there may be insufficient resources for the timely payment of the entity's obligations and commitments, and that the Group may therefore be forced to obtain liquidity in the market or to liquidate investments for consideration. It is also understood as the possibility of not finding buyers for the securities in the portfolio.

The Group has identified that the financial instruments affected by liquidity risk include:

- Cash and cash equivalents
- Other Financial Assets:
  - Fixed income securities
  - Investments pledged or pledged as collateral
  - Swaps
- Trade receivables and other accounts receivable

To control liquidity risk, temporal comparisons of figures, benchmarks and liquidity levels over different time horizons are made. Based on this analysis, investment strategies are developed that do not affect the Group's liquidity, taking into account the cash budget and market risk analyses to consider the diversification of funding sources, the ability to sell assets and the creation of contingency plans.

In general, the main aspects taken into account in the analysis are:

- Liquidity of the securities: the characteristics of the issuer, the amount of the issue and the trading volume are analyzed.
- Market liquidity: The general behavior of the market is analyzed and rate forecasts are made to infer its future behavior.
- Portfolio liquidity: cash flows are coordinated in order to determine investment strategies in accordance with future liquidity requirements, and diversification is sought to avoid the concentration of securities by issuer, rates, and/or maturities.

The following table shows the remaining contractual maturity analysis for liabilities and non-derivative financial assets:

	Effective average 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
2023							
Non-derivative financial assets							
Debt financial instruments with variable interest rates	10.18%	2,198,221	745,641	3,228,215	2,393,818	3,372,666	11,938,561
Fixed interest rate debt financial instruments	5.83%	2,141,823	557,651	213,818	4,685,831	8,032,193	15,631,315
2022							
Non-derivative financial assets	10.79%	1,820,727	34,394	22,029			1,877,150
Debt financial instruments with variable interest rates	10.33%	1,454,606	974,177	795,994	2,731,937	4,668,494	10,625,207
Fixed interest rate debt financial instruments	5.47%	1,740,774	1,396,826	429,524	250,785	14,708,909	18,526,817

- Amount in millions of Colombian Pesos -

The amounts included in the above tables for non-derivative financial assets and liabilities may change in response to changes in the variable interest rate relative to the estimated interest rate at the end of the reporting period. The Group considers that cash flows may not occur earlier than indicated above.

The following table shows the remaining contractual maturity analysis for derivative financial liabilities:

	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
2023						
Swap Contracts	958,634	951,274	1,042,502	920,561	1,626,377	5,499,349
Total	958,634	951,274	1,042,502	920,561	1,626,377	5,499,349
2022						
Swap Contracts	598,093	647,106	644,870	651,619	473,684	3,015,372
Total	598,093	647,106	644,870	651,619	473,684	**3,0153,712**

- Amount in millions of Colombian Pesos -

The main method for measuring and monitoring liquidity is cash flow forecasting, which is carried out in the Group's companies and consolidated in the cash budget. As a result, its cash position is monitored on a daily basis and projections are continuously made, in order to:

- Monitor liquidity needs related to operating and investment activities associated with the acquisition and disposition of long-term assets.
- Pay, prepay, refinance or obtain new loans, in accordance with the Group's cash flow generation capacity.

These projections take into account the Group's debt financing plans, compliance with ratios, compliance with organizational objectives and applicable regulations.

Finally, and in addition to the management of investments and cash flow forecasting as part of the strategy of prudent liquidity risk management, to control the current and working capital ratio, the EPM Group seeks to guarantee adequate liquidity through the availability of long-term financing with credit alternatives.

43.5. Insurance Risk

The Group assumes insurance risk in relation to: property damage, business interruption, sabotage and terrorism, commercial crime, directors' liability exposure and building officers.

The management of the Group's insurance risk is carried out through -indicate the name of the EPM Group company-, located in -indicate the country where the EPM Group company is located-, which consolidates the risks assumed and assigns them through reinsurance operations.

The reinsurance companies with which operations were carried out as of 2023 are the following:

Reinsurer	Risk rating
Seguros Generales Suramericana S.A	AAA
Allianz Seguros S.A	AA+
La Previsora Compañía de Seguros S.A	AA+

The Group's main claims assumed are as follows:

Type of claim	Reserve amount	Amount reinsurer
Termosierra EPM	61,153	51,598
Son Son I - Hydroelectric Plant	5,763	-
Las Palmas - ESSA Hydroelectric Planr	1,643	-
Playas	3,058	-
Total	**71,617**	**51,598**

-Amounts stated in millions of Colombian pesos -

The value of the insured assets is as follows

	2023	2022
EPM	24,923,446	32,850,012
CHEC	2,181,850	2,794,141
DELSUR	393,306	419,636
ESSA	713,839	952,324
HET	781,223	962,698
AGUAS NACIONALES	943,933	1,423,289
BODEGAS ITUANGO	610,452	1,729,484
Total	**30,548,049**	**41,131,584**

-Amounts stated in millions of Colombian pesos -

Note 44.

Measuring fair value on a recurring and non-recurring basis

The methodology set out in IFRS 13 Measuring Fair Value specifies a hierarchy in valuation techniques based on whether the variables used in determining fair value are observable or unobservable. The Group determines fair value on a recurring and non-recurring basis, as well as for disclosure purposes:

- Based on prices quoted in active markets for assets or liabilities identical to those that the Group can access on the measurement date (level 1).
- Based on valuation techniques commonly used by market participants that use variables other than quoted prices that are observable for assets or liabilities directly or indirectly (level 2).
- Based on internal valuation techniques for discounting cash flows or other valuation models, using variables estimated by the Group that are not observable for the asset or liability, in the absence of variables observed in the market (level 3).

During 2023 and 2022, the Group has not made any transfers between the levels of the fair value hierarchy, both for transfers in and out of the levels

Valuation techniques and variables used by the Group to measure fair value for recognition and disclosure:

Cash and cash equivalents: include fixed income instruments and fiduciary engagements. The latter reflect the balance of the Collective Investment Funds (CIFs) 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 updated at fair value. The EPM Group uses the market approach as a valuation technique for this item, these items are classified at level 1 of the fair value hierarchy.

Fair value investments through profit or loss and equity: this corresponds to the investments made to optimize liquidity surpluses, 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, it 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 equity securities of national or foreign entities, represented in shares or parts of social 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 others (level 3).

Fiduciary rights: corresponds to the rights arising from the conclusion of commercial trust agreements. 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, mainly interest rate, exchange rate and commodity price risk. Such derivative financial instruments are initially recognized at their fair values at the date on which the derivative contract is concluded, and subsequently remeasured at fair value. The Group uses discounted cash flow as a valuation technique for swaps, in an income approach. The variables used are: Swap curve interest rate for dollar-denominated rates, to discount flows in dollars; and External Interest Rate Swap Curve for peso-denominated rates, to discount flows in pesos. These items are classified at level 2 of the fair value hierarchy. With respect to Zero Cost Collar options, the Black and Scholes model is used as a reference, which analyzes the value of options based on the price of the asset underlying the option and follows a continuous stochastic process of Gauss-Wiener evolution with constant mean and instantaneous variance. These items are classified at level 2 of the fair value hierarchy. Additionally, for the put option of the climate derivative, the Monte Carlo method is used as a valuation technique, which simulates the non-financial variable (rainfall

measured in two meteorological stations located in the basins of two of the most important rivers in EPM's area of influence: Río Abajo and Riogrande I) in a series of situations or possible scenarios for a given event. including the limits and present value of the flows defined in the contract. This item is classified at level 3 of the fair value hierarchy because it uses variables not obtained from observable data in the market.

Accounts receivable: made up of the accounts receivable originated in the business combination for the acquisition of the subsidiary Empresas Públicas de Rionegro, for its valuation the discount of payment flows is considered by applying the weekly deposit rates for CDT at 360 days published by Banco de la República; and by the account receivable associated with the firm supply contract of liquid fuel (ACPM) for the plants La Sierra and Termodorada thermoelectric plants, which are updated according to the value of the fuel unit stipulated in the contract. Both items are classified at level 3 of the fair value hierarchy.

Investment properties: these are properties (land or buildings, considered in whole or in part, or both) that are held (by the Group in its own name or by part of a financial lease) to obtain income, capital gains or both, rather than to:

- Its use in the production or supply of goods or services, or for administrative purposes; or
- Its sale in the ordinary course of business.

The Panel uses two valuation techniques for these items. Within the market approach, the comparative or market method is used, which consists of deducing the price by comparing transactions, supply and demand and appraisals 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, minus depreciation due to age and state of conservation. Both items are classified at level 3 of the fair value hierarchy.

Contingent considerations: arising from business combinations in the acquisitions of the subsidiaries Espíritu Santo Energy S. de R.L. and Empresas Varias de Medellín S.A E.S.P. – EMVARIAS, the discounting of payment flows is considered by applying the discount rates: Libor Rate and TES Rate, respectively. These items are classified at level 3 of the fair value hierarchy.

Other accounts payable: corresponds to the premium payable of a climate derivative whose valuation technique is the average of expected future flows, discounted at a risk-free rate plus a spread that contemplates the possibility of default (own credit risk). This item is classified at level 3 of the fair value hierarchy due to the use of variables not obtained from observable market data, such as own credit risk.

The following table shows, for each of the levels of the fair value hierarchy, 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 as of December 31, 2022	Carrying amount	Level 1	Level 2	Level 3	Total
Assets					
Cash and cash equivalents	639,034	639,034	-	-	639,034
Total negotiable or designated at fair value (See note 18)	**639,034**	**639,034**	**-**	**-**	**639,034**
Fixed income securities	426,252	426,252	-	-	426,252
Equity securities investments at fair value	426,300	426,300	-	-	426,300
Investments pledged or given in guarantee	808	808	-	-	808
Total other investments at fair value (See note 13)	**853,360**	**853,360**	**-**	**-**	**853,360**
Variable income securities other equity investments	1,562,842	1,555,210	-	7,632	1,562,842
Total other equity investments (See note 13)	**1,562,842**	**1,555,210**	**-**	**7,632**	**1,562,842**
Trust in administration	330,338	330,338	-	-	330,338
Total trust rights (See note 13)	**330,338**	**330,338**	**-**	**-**	**330,338**
Put Options	31,453	-	-	31,453	31,453
Futures Contracts	88		88		88
Derivative swaps	1,111	-	1,111	-	1,111
Collar Options	-	-	-	-	-
Total derivatives	**32,652**	**-**	**1,199**	**31,453**	**32,652**
Other accounts receivable	49,338	-	-	49,338	49,338
Total debtors (See note 12)	**49,338**	**-**	**-**	**49,338**	**49,338**
Investment properties Urban and rural land	155,250	-	-	155,250	155,250
Investment property Buildings and houses	39,360	-	-	39,360	39,360
Total investment properties	**194,610**	**-**	**-**	**194,610**	**194,610**
Liabilities					
Provision - business combination	141,143	-	-	141,143	141,143
Total contingent consideration (See note 27)	**141,143**	**-**	**-**	**141,143**	**141,143**
Other accounts payable	906,573	-	906,573	-	906,573
Total accounts payable	**906,573**	**-**	**906,573**	**-**	**906,573**
Total fair value on a recurring basis	**2,614,458**	**3,377,942**	**(905,374)**	**141,890**	**2,614,458**

Amounts stated in millions of Colombian pesos

Fair value on a recurring basis as of December 31, 2022	Carrying amount	Level 1	Level 2	Level 3	Total
Assets					
Cash and cash equivalents	812,232	812,232	-	-	812,232
Total negotiable or designated at fair value (See note 18)	**812,232**	**812,232**	**-**	**-**	**812,232**
Fixed income securities	560,166	560,166	-	-	560,166
Equity securities investments at fair value	128,814	128,814	-	-	128,814
Investments pledged or given in guarantee	233,004	233,004	-	-	233,004
Total other investments at fair value (See note 13)	**921,984**	**921,984**	**-**	**-**	**921,984**
Variable income securities other equity investments	2,100,071	2,092,266	-	7,805	2,100,071
Total other equity investments (See note 13)	**2,100,071**	**2,092,266**	**-**	**7,805**	**2,100,071**
Trust in administration	334,492	334,492	-	-	334,492
Total trust rights (See note 13)	**334,492**	**334,492**	**-**	**-**	**334,492**
Put Options	67,870	-	-	67,870	67,870
Derivative swaps	466,733	-	466,733	-	466,733
Collar Options	-	-	-	-	-
Total derivatives	**534,603**	**-**	**466,733**	**67,870**	**534,603**
Other accounts receivable	47,105	-	-	47,105	47,105
Total debtors (See note 12)	**47,105**	**-**	**-**	**47,105**	**47,105**
Investment properties Urban and rural land	153,781	-	-	153,781	153,781
Investment property Buildings and houses	36,793	-	-	36,793	36,793
Total investment properties	**190,574**	**-**	**-**	**190,574**	**190,574**
Liabilities					
Provision - business combination	164,112	-	-	164,112	164,112
Total contingent consideration (See note 27)	**164,112**	**-**	**-**	**164,112**	**164,112**
Other accounts payable	49,089	-	-	49,089	49,089
Total accounts payable	**49,089**	**-**	**-**	**49,089**	**49,089**
Derivative Passive Swaps	4,065	-	4,065	-	4,065
Total Derivative liabilities	**4,065**	**-**	**4,065**	**-**	**4,065**
Total fair value on a recurring basis	**4,723,795**	**4,160,974**	**462,668**	**100,153**	**4,723,795**

Amounts stated in millions of Colombian pesos

During 2023, no transfers were made between levels.

The following tables present a reconciliation of the Group's assets and liabilities measured at fair value on a recurring basis using non-observable variables (classified at level 3 of the fair value hierarchy) as of December 31, 2023 and 2022:

Changes in level 3 of the fair value hierarchy as of December 30, 2023	Initial balance	Changes recognized in profit or loss	Changes recognized in other comprehensive income	Settlements	Final balance
Assets					
Variable income securities other equity investments	7,805	-	(173)	-	7,632
Total other equity investments (See note 13)	**7,805**	**-**	**(173)**	**-**	7,632
Options	67,870	(36,417)	-	-	31,453
Total derivatives	**67,870**	**(36,417)**	**-**	**-**	31,453
Other accounts receivable	47,105	2,233	-	-	49,338
Total receivables	**47,105**	**2,233**	**-**	**-**	49,338
Investment properties Urban and rural land	153,781	-	1,469	-	155,250
Investment properties Buildings and houses	36,793	-	2,567	-	39,360
Total investment properties	**190,574**	**-**	**4,036**	**-**	194,610
Liabilities					
Provision - business combination	164,112	(22,969)	-	-	141,143
Total contingent consideration (See Note 27)	**164,112**	**(22,969)**	**-**	**-**	141,143

Amounts stated in millions of Colombian pesos

Changes in level 3 of the fair value hierarchy as of December 30, 2022	Initial balance	Changes recognized in profit or loss	Changes recognized in other comprehensive income	Purchases	Sales and transfers
Assets					
Variable income securities other equity investments	8,043	-	(238)	-	7,805
Total other equity investments (See note 13)	**8,043**	**-**	**(238)**	**-**	7,805
Options	102,210	(34,340)	-	-	67,870
Total derivatives	**102,210**	**(34,340)**	**-**	**-**	67,870
Other accounts receivable	23,187	23,918	-	-	47,105
Total receivables	**23,187**	**23,918**	**-**	**-**	47,105
Investment properties Urban and rural land	136,211	-	17,570	-	153,781
Investment properties Buildings and houses	31,119	-	5,674	-	36,793
Total investment properties	**167,330**	**-**	**23,244**	**-**	190,574
Liabilities					
Provision - business combination	165,214	(1,102)	-	-	164,112
Total contingent consideration (See Note 27)	**165,214**	**(1,102)**	**-**	**-**	164,112
Other Accounts Payable	91,317	20,844	-	(63,071)	49,090
Total Accounts Payable	**91,317**	**20,844**	**-**	(63,071)	49,090

Amounts stated in millions of Colombian pesos

The carrying amount and estimated fair value of the group's assets and liabilities that are not recognized at fair value in the consolidated statement of financial position, but require disclosure at fair value, as of December 31, 2023 and 2022 is as follows:

2023	Carrying amount	Level 2	Total
Assets			
Public services	9,562,023	9,513,743	9,513,743
Employees	242,613	223,989	223,989
Construction contracts	5,049	5,049	5,049
Other accounts receivable	1,714,811	1,524,430	1,524,430
Total Assets	**11,524,496**	**11,267,211**	**11,267,211**
Liabilities			
Development bank borrowings	2,262,090	2,164,558	2,164,558
Multilateral bank borrowings	776,947	643,828	643,828
Commercial bank borrowings	10,344,517	9,104,110	9,104,110
Bonds and securities issued	14,493,386	13,118,385	13,118,385
Total liabilities	**27,991,940**	**25,142,666**	**25,142,666**
Total	**(16,467,444)**	**(13,875,455)**	**(13,875,455)**

Amounts stated in millions of Colombian pesos

2022	Carrying amount	Level 2	Total
Assets			
Public services	7,958,729	7,940,569	7,940,569
Employees	224,225	198,662	198,662
Construction contracts	5,140	5,140	5,140
Other accounts receivable	1,757,839	1,751,547	1,751,547
Total Assets	**9,945,933**	**9,895,918**	**9,895,918**
Liabilities			
Development bank borrowings	2,292,111	2,292,111	2,292,111
Multilateral bank borrowings	1,163,243	1,163,243	1,163,243
Commercial bank borrowings	9,053,293	9,053,293	9,053,293
Bonds and securities issued	16,866,622	13,995,066	13,995,066
Other liabilities	115,000	111,786	111,786
Total liabilities	**29,490,269**	**26,615,499**	**26,615,499**
Total	**(19,544,336)**	**(16,719,581)**	**(16,719,581)**

Amounts stated in millions of Colombian pesos

As of December 31, 2023 and 2022, there were no concepts in levels 1 and 3.

Note 45.

Service concession arrangements

As of the cut-off date, the Group manages as operator several concessions that contain provisions for the construction, operation and maintenance of facilities, as well as the provision of public services such as water supply, collection and wastewater treatment, in accordance with the applicable regulations.

The remaining period of the concessions in which the Group acts as operator is detailed below:

Company/Agreement	Activity	Country	Grant Period	Initial Remaining Period
Empresas Públicas de Medellín - Municipality of Itagüí 1/DJ/-6199/10 06/09/1978	Execution of works and provision of drinking water supply and sewerage services.	Colombia	Indefinite term	
Empresas Públicas de Medellín - Municipality of Caldas 1401288 28/08/1997	The Municipality undertakes to make available and facilitate the use of networks and other infrastructure for the provision of aqueduct and sewerage services.	Colombia	30 years (extendable)	4 years
Empresas Públicas de Medellín - Municipality of Barbosa 1401287 02/10/1997	The Municipality undertakes to make available and facilitate the use of networks and other infrastructure for the provision of aqueduct and sewerage services.	Colombia	30 years (extendable)	4 years
Empresas Públicas de Medellín - Municipality of Copacabana 1/DJ-9994/9 31/10/1990	Execution of works for the supply of drinking water, sewerage and provision of such services.	Colombia	20 years (extendable)	7 years
Empresas Públicas de Medellín - Municipality of Envigado 1/DJ/-5941/30 1/DJ/-7982/5 03/08/1977 27/02/1985	Provision of the aqueduct and sewerage service and construction of works for the provision of the aqueduct and sewerage service.	Colombia	10 years (extendable)	4 years
Empresas Públicas de Medellín - Municipality of Sabaneta 1/DJ/-7885/19 03/10/1984	The Municipality undertakes to make available and facilitate the use of networks and other infrastructure for the provision of aqueduct and sewerage services.	Colombia	10 years (extendable)	1 year
Empresas Públicas de Medellín - Municipality of La Estrella 1/DJ/-7835/17 10/09/1984	Execution of works and provision of drinking water supply and sewerage services.	Colombia	10 years (extendable)	1 year

Company/Agreement	Activity	Country	Grant Period	Initial Remaining Period
Empresas Públicas de Medellín - Municipality of Bello 1/DJ/-7586/25 28/02/1984	Execution of works and provision of aqueduct and sewerage service.	Colombia	10 years (extendable)	1 year

Company/Agreement	Activity	Country	Grant Period	Initial Remaining Period
Municipality of Apartadó / Aguas Regionales EPM.	The Municipality undertakes to make available the movable and immovable assets that make up the system for the provision of aqueduct and sewerage services	Colombia	30	13
Municipality of Carepa/ EPM Regional Waters.	The Municipality undertakes to make available the movable and immovable property that makes up the system for the provision of aqueduct and sewerage services.	Colombia	30	13
Municipality of Chigorodó / EPM Regional Waters.	The Municipality undertakes to make available the movable and immovable property that makes up the system for the provision of aqueduct and sewerage services.	Colombia	30	13
Municipality of Mutatá / EPM Regional Waters	The Municipality undertakes to make available the movable and immovable property that makes up the system for the provision of aqueduct and sewerage services.	Colombia	30	13
Municipality of Turbo / Aguas Regionales EPM.	The Municipality undertakes to make available the movable and immovable property that makes up the system for the provision of aqueduct and sewerage services.	Colombia	30	13
Municipality of El Retiro / Aguas de Oriente	Operate and maintain the networks and other infrastructure received during the concept of an adequate provision of the service.	Colombia	No explicit duration period	NA
Aguas Antofagasta S.A.	Operation of public services for the production and distribution of drinking water, collection and disposal of waste water and other services related to such activities	Chile	30	10

Company/Agreement	Activity	Country	Grant Period	Initial Remaining Period
Colima Wastewater Treatment Plant.	Wastewater Treatment	Mexico	34 years	21 years
Wastewater treatment plants in Morelos and Tierra Negra, Tamaulipas.	Wastewater Treatment	Mexico	24 years	19 year
New processes contracted for the PEMEX project in Ciudad Madero, Tamaulipas.	Wastewater Treatment	Mexico	24 years	19 years
Wastewater treatment plants in Atapaneo and Itzícuaros, Morelia.	Wastewater Treatment	Mexico	24 years	15 years
Wastewater treatment plants of Tuxtla and Paso el Limón, in Tuxtla Gutiérrez.	Wastewater Treatment	Mexico	18 years	11 years
Wastewater treatment plant in Celaya, Guanajuato.	Wastewater Treatment	Mexico	18 years	9 years

Company/Agreement	Activity	Country	Grant Period	Initial Remaining Period
Ministry of Environment	Water Use	Panama	Permanent	Permanent
Public Utilities Authority (ASEP)	Hydroelectric Generation	Panama	50 years	26 years
Electric Transmission Company	Interconnected System	Panama	24 years extendable	
National Environmental Authority (ANAM)	Management of protected areas	Panama	20 years	12 years
Empresa de Distribución Eléctrica Chiriquí S.A.	Sale of energy	Panama	15 years	7 years
Empresa de Distribución Metro-Oeste S.A.	Sale of energy	Panama	15 years	7 years
Elektra Noreste S.A.	Sale of energy	Panama	15 years	7 years

Service concession agreements for the provision of aqueduct and sewerage services

In Colombia:

The concession agreements between EPM and the Municipalities establish the conditions under which the aqueduct and sewerage networks are administered, operated and maintained for the provision of drinking water and wastewater sanitation services to their inhabitants, under the terms, conditions and rates established by the Commission for the Regulation of Drinking Water and Basic Sanitation – CRA.

The user is charged via a tariff according to the replacement intervention, expansion or interventions in the networks with the execution of the projects under construction (Constructions in progress). Following the parameters and conditions established by the C.R.A. (Water Regulation Commission).

The agreements set out the following rights and obligations for EPM as an operator in the service concession agreement:

- The right to receive from the Municipality all the aqueduct and sewerage networks and to have exclusivity as the operator of the system.
- Obligation to make exclusive use of the aqueduct and sewerage networks for the purposes for which they are intended, maintain them and return them in the conditions of use in which they were received.
- Some concession agreements have the option to be automatically renewed for equal periods unless one of the parties expresses an intention not to continue with the concession.
- Concession agreements do not establish an obligation to construct property, plant and equipment elements.

At the end of the concession, EPM must return the aqueduct and sewer networks without any consideration to the Municipalities. There have been no changes to the terms of the concession agreement during the period.

For these agreements, the intangible asset model applies.

See Note 7 | Goodwill and Other Intangible Assets

In Regional Waters: As of the cut-off date, no revenues and costs incurred for construction services exchanged for a financial asset or an intangible asset have been recognized.

The concession agreement between Aguas Regionales and the Municipalities establishes that the conditions under which the aqueduct and sewerage networks are administered, operated and maintained for the provision of drinking water and wastewater sanitation services 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 Aguas Regionales as operator in the service concession agreement:

- **Description of the concession agreement:** The Municipality undertakes to make available the movable and immovable assets that make up the system for the provision of aqueduct and sewerage services.
- **Rights of the Agreement:** To receive the real estate of aqueduct and sewerage and other infrastructure that the municipality delivers, and to use it exclusively for the purposes for which it has been intended.
- **Obligations of the agreement:** Operate and maintain the networks and other infrastructure received within the concept of adequate service provision.
- **Obligations of the Operating Company at the end of the concession:** To return the networks to the current conditions of use.

There have been no changes to the terms of the concession agreement during the period

In Aguas de Oriente: The concession agreement between Aguas del Oriente and the municipality of El Retiro establishes that the municipality is obliged to hand over the aqueduct and sewerage systems of the municipality of El Retiro to the company Aguas del Oriente Antioqueño S.A E.S.P, to provide the aqueduct and sewerage services.

In the loan, the following obligations are indicated for Aguas del Oriente: To provide aqueduct and sewerage services in the municipality of El Retiro in compliance with Law 142 of 1994 and the resolutions issued for this purpose by the Commission for the Regulation of Water and Basic Sanitation.

Obligations of the municipality: To deliver the aqueduct and sewerage distribution networks to Aguas del Oriente on a loan basis.

Obligations of the agreement: The expansion of the networks will be carried out in accordance with the regulations on the matter and will be the responsibility of the parties, who may do so directly or through the municipality in projects with greater coverage. The recoveries of these investments will be made by the parties under the schemes that for this purpose they agree with the beneficiaries of the projects and in accordance with the provisions of the law on this aspect. With resources from the tariffs, Aguas del Oriente will carry out the maintenance and replacement of networks and will do so under technical and economic criteria.

Termination of the agreement: The agreement will be terminated for the following reasons: A) By mutual agreement between the parties and B) By liquidation of the company.

At the end of the concession, Aguas del Oriente must return the aqueduct and sewerage systems (aqueduct and sewer networks) to the municipality. Drinking water production systems (intake, pipelines, drinking water treatment plant, storage tanks, pumps, land where the system is located, etc.). They are and will continue to be from Aguas del Oriente.

There have been no changes in the terms of the concession agreements during the period.

In Adasa: The exploitation of the concession right implies the financing and execution of works required for the maintenance, replacement and expansion of the infrastructure and facilities necessary to meet the demand for related public services, 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 qualified by the Superintendence of Services Sanitary services under the terms of article fifty-eight of the General Law on Health Services.

As part of the contract that granted the Concession to the company, it received real estate, movable property, installations, water 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 goods received through the concession, which must be returned at the end of the Contract in the state in which it is, ensuring its proper functioning at all times. The subsequent

investments made by the company, in those parts that cannot be recovered through tariffs because their estimated use exceeds the remaining term of the Sanitary Concession, will be recovered in said 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 signed transfer contract.

As part of its obligations, the company must annually submit specific information on the assets held on loan, as well as the new investments made within the framework established in the transfer contract signed between the two companies, which includes a cadastre of each and every one of the facilities and networks of the sanitary services for the production and distribution of drinking water and for the collection and disposal of wastewater.

In Mexico: The entity considers that the concession contract in which it participates falls within the scope of the INIF 17 Concession Contracts. In addition, it has assessed that the consideration granted to it by the Agency is an account receivable, since it has the contractual and unconditional right to receive cash for construction services. During the construction period, the Company recognizes a work in progress, once the Agency grants the release of the construction, the Company recognizes an account receivable that is recorded as a short-term and long-term financial asset, depending on the estimated date of collection. The interest earned on this account receivable is recognized in the income statement under interest income.

Revenues from the operation of concession projects are recognized as concession revenues on an as-accrued basis.

En Hidrosur: As of December 31, 2023, the company manages as operator various concessions that contain provisions for the construction, operation and maintenance for hydroelectric generation, water use, energy sales, transmission system and administration of protected areas.

Note 46.

Operating Segments

46.1. Segment Information

For management purposes, the Group is organized into segments on the basis of its products and services, and has the following eight operating segments on which information is presented:

- Energy Generation and Commercialization Segment, whose activity consists of the production of energy and commercialization of large blocks of electrical energy, based on the acquisition or development of a portfolio of energy proposals for the market.
- Energy Distribution and Commercialization Segment, whose activity consists of transporting electrical energy through a set of lines and substations, with their associated equipment, operating 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 street lighting service and the provision of associated services.
- Energy Transmission Segment, whose activity consists of the transmission of energy in the National Transmission System -STN-, composed of the set of lines, with their corresponding connection equipment, which operate at voltages equal to or greater than 220 KV. The National Transmitter (TN) is the legal entity that operates and transports electrical energy in the STN or has established a company whose purpose is the development of such activity.
- Gas Distribution and Marketing Segment, whose activity consists of the conduction of gas from the city gate to the end user, through medium and low pressure pipes. It includes the sale of gas through different systems, including grid distribution, natural gas for vehicles, compressed natural gas and service stations.

- Water Supply and Marketing Segment, whose activity consists of conceptualizing, structuring, developing and operating systems to provide water. It includes carrying out the commercial management of the portfolio of services related to the supply of water for different uses, in addition to the use of the production chain, specifically in the production of energy, and the supply of raw water.
- Wastewater Management and Marketing Segment, comprises the activities of conceptualizing, structuring, developing and operating wastewater and solid waste management systems, in addition to the use of the production chain, specifically in the production of energy and gas.
- Solid Waste Management and Marketing Segment, includes carrying out the commercial management related to these services and the use of biosolids and other by-products of wastewater treatment and solid waste management.
- Other Segment, which corresponds to the other activities that are not included within the segments listed above. It includes: Adapted Health Entity (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 specialized transportation service and services associated with information and communication technologies, information services and complementary activities related or related to them.

The Group has not aggregated operating segments to make up these eight reportable segments; However, it carries out the activity of energy marketing, which consists of the purchase of electricity on the wholesale market and its sale to other market players or to regulated or non-regulated end users. Therefore, the Group includes the financial information of the company in the corresponding segments that contain this activity.

Management monitors the operating results of the operating segments separately for the purpose of making decisions on resource allocation and evaluating their performance. Segment performance is measured on the basis of pre-tax and discontinued operating gain or loss and is measured uniformly with operating gain or loss in the consolidated financial statements.

The transfer prices between the operating segments are agreed as between independent parties in a similar way to those agreed with third parties.

2023	Generation	Transmission	Distribution	Gas	Water supply	Wastewater management	Solid waste management	Other segments	Total segments	Intersegment eliminations	Consolidated
Revenues from external customers	6,456,029	374,445	24,970,973	1,546,349	2,130,208	1,451,884	325,195	281,633	37,536,716	-	**37,536,716**
Inter-segment revenues	835,324	159,682	1,054,892	58,143	55,175	62,491	1,135	150,157	2,376,999	(2,376,999)	-
Total net revenue	**7,291,353**	**534,127**	**26,025,865**	**1,604,492**	**2,185,383**	**1,514,375**	**326,330**	**431,790**	**39,913,715**	**(2,376,999)**	**37,536,716**
Costs and expenses without depreciation, amortization, provisions and impairment of PP&E and intangibles	(3,227,770)	(107,163)	(20,458,536)	(1,337,175)	(1,154,580)	(873,576)	(264,128)	(389,380)	(27,812,308)	2,247,934	(25,564,374)
Depreciation, amortization, provisions and impairment of PP&E and intangible assets	(1,270,952)	(72,109)	(1,046,424)	(23,721)	(332,707)	(138,642)	(71,418)	(57,573)	(3,013,546)	49,470	(2,964,076)
Impairment of trade receivable	(36,794)	(1,103)	(1,064,171)	(1,349)	(35,337)	(18,689)	(83)	(42,584)	(1,200,110)	454	(1,199,656)
Other expenses	(20,406)	(2,667)	(84,456)	(1,274)	(13,113)	(4,022)	(346)	(622)	(126,906)	1,471	(125,435)
Interest and yield income	104,622	13,515	237,658	23,334	75,666	128,866	11,728	112,780	708,169	(369,959)	338,210
Finance income (other than interest and yields)	24,898	4,739	75,592	44,633	20,151	24,631	2,107	269,713	466,464	-	466,464
Total finance income	129,520	18,254	313,250	67,967	95,817	153,497	13,835	382,493	1,174,633	(369,959)	804,674
Interest expense	(925,436)	(93,071)	(808,124)	(86,681)	(474,047)	(251,419)	(13,762)	(662,614)	(3,315,154)	375,910	(2,939,244)
Financie expenses (other than interest)	(156,228)	(374)	(94,970)	(2,643)	(30,966)	(13,703)	(25,558)	(4,955)	(329,397)	1,559	(327,838)
Total finance expense	(1,081,664)	(93,445)	(903,094)	(89,324)	(505,013)	(265,122)	(39,320)	(667,569)	(3,644,551)	377,469	(3,267,082)
Net foreign exchange difference	176,742	839	70,481	4,188	78,587	14,168	3	(173,766)	171,242	(54)	171,188
Equity method in the profit or loss of associates and joint ventures	-	-	-	-	-	-	-	(567,722)	(567,722)	-	(567,722)
Effect of share in equity investments	-	-	1,330	-	-	-	-	178,119	179,449	(1,331)	178,118
Profit or loss before income tax for the period	**1,960,029**	**276,733**	**2,854,245**	**223,804**	**319,037**	**381,989**	**(35,127)**	**(906,814)**	**5,073,896**	**(71,545)**	**5,002,351**
Income tax	(708,428)	(62,361)	(782,300)	(78,054)	4,732	(121,339)	438	200,943	(1,546,369)	30,216	(1,516,153)
Net movement in regulatory accounts related to profit or loss for the period	-	-	75,748	-	-	-	-	-	75,748	-	75,748
Net profit or loss for the period	**1,251,601**	**214,372**	**2,147,693**	**145,750**	**323,769**	**260,650**	**(34,689)**	**(705,871)**	**3,603,275**	**(41,329)**	**3,561,946**
Total assets without investments in associates and joint ventures and debit balances of deferred regulatory accounts	26,657,403	2,436,559	29,187,485	1,635,160	9,290,875	8,279,647	453,376	4,719,911	82,660,416	(6,636,297)	76,024,119
Investments in associates and joint ventures accounted for by the equity method	-	-	-	-	-	-	-	1,073,863	1,073,863	-	1,073,863
Deferred assets related to regulatory account balances	-	-	137,883	-	-	-	-	-	137,883	-	137,883
Total assets and debit balances of deferred regulatory accounts	**26,657,403**	**2,436,559**	**29,325,368**	**1,635,160**	**9,290,875**	**8,279,647**	**453,376**	**5,793,774**	**83,872,162**	**(6,636,297)**	**77,235,865**
Total liability	**15,614,429**	**1,110,085**	**16,653,505**	**986,032**	**5,840,575**	**4,548,136**	**441,775**	**6,202,123**	**51,396,660**	**(5,518,494)**	**45,878,166**
Deferred liabilities related to regulatory account balances	**-**	**-**	**41,365**	**-**	**-**	**-**	**-**	**-**	**41,365**	**-**	**41,365**
Total liabilities and credit balances from deferred regulatory accounts	**15,614,429**	**1,110,085**	**16,694,870**	**986,032**	**5,840,575**	**4,548,136**	**441,775**	**6,202,123**	**51,438,025**	**(5,518,494)**	**45,919,531**
Additions to non-current assets	1,881,877	112,004	2,611,239	19,701	825,127	291,495	51,952	121,974	5,915,369	-	**5,915,369**

Amounts stated in millions of Colombian pesos

2022	Generation	Transmission	Distribution	Gas	Water supply	Wastewater management	Solid waste management	Other segments	Total segments	Intersegment eliminations	Consolidated
Revenues from external customers	4,753,989	347,758	22,357,862	1,296,008	1,739,639	1,193,245	285,014	248,954	32,222,469	-	32,222,469
Inter-segment revenues	1,188,993	149,209	797,593	300,851	74,332	52,195	2,676	132,676	2,698,525	-2,698,525	-
Total net revenue	**5,942,982**	**496,967**	**23,155,455**	**1,596,859**	**1,813,971**	**1,245,440**	**287,690**	**381,630**	**34,920,994**	**-2,698,525**	**32,222,469**
Costs and expenses without depreciation, amortization, provisions and impairment of PP&E and intangibles	-2,929,975	-102,037	-17,193,924	-1,379,131	-863,268	-638,070	-229,167	-377,495	-23,713,067	2,564,406	-21,148,661
Depreciation, amortization, provisions and impairment of PP&E and intangible assets	-441,948	-66,321	-855,075	-21,556	-305,986	-133,829	-53,264	-32,952	-1,910,931	42,058	-1,868,873
Impairment of trade receivable	-50,936	-1,082	-942,746	-5,922	-18,514	-32,445	-922	-52,783	-1,105,350	-1,055	-1,106,405
Other expenses	-20,592	-1,457	-96,458	-1,266	-16,791	-3,024	-49	-865	-140,502	1,991	-138,511
Interest and yield income	106,119	3,419	110,108	4,637	30,251	71,401	4,717	32,518	363,170	-115,112	248,058
Finance income (other than interest and yields)	11,305	2,135	46,042	8,922	18,100	12,505	3,208	47,628	149,845	-	149,845
Total finance income	117,424	5,554	156,150	13,559	48,351	83,906	7,925	80,146	513,015	-115,112	397,903
Interest expense	-448,721	-73,643	-486,911	-62,530	-412,921	-179,985	-6,011	-510,891	-2,181,613	122,031	-2,059,582
Financie expenses (other than interest)	-129,407	-320	-42,890	-1,247	-20,901	-9,674	-16,206	-6,204	-226,849	1,549	-225,300
Total finance expense	-578,128	-73,963	-529,801	-63,777	-433,822	-189,659	-22,217	-517,095	-2,408,462	123,580	-2,284,882
Net foreign exchange difference	-337,669	453	-38,321	5,697	10,290	643	-9	255,503	-103,413	327	-103,086
Equity method in the profit or loss of associates and joint ventures	-	-	-	-	-	-	-	-231,842	-231,842	-	-231,842
Effect of share in equity investments	-	-	3,299	-	-	-	-	68,455	71,754	-1,032	70,722
Profit or loss before income tax for the period	**1,701,158**	**258,114**	**3,658,579**	**144,463**	**234,231**	**332,962**	**-10,013**	**-427,298**	**5,892,196**	**-83,362**	**5,808,834**
Income tax	-260,842	-63,403	-1,066,788	-45,402	45	-150,510	-1,558	-49,312	-1,637,770	17,600	-1,620,170
Net movement in regulatory accounts related to profit or loss for the period	-	-	-67,118	-	-	-	-	-	-67,118	-	-67,118
Net profit or loss for the period	1,440,316	194,711	2,524,673	99,061	234,276	182,452	-11,571	-476,610	4,187,308	-65,762	4,121,546
Total assets without investments in associates and joint ventures and debit balances of deferred regulatory accounts	24,606,779	2,787,176	26,622,356	1,553,728	9,719,100	7,737,864	449,472	4,556,627	78,033,102	-3,680,732	74,352,370
Investments in associates and joint ventures accounted for by the equity method	-	-	-	-	-	-	-	1,176,188	1,176,188	-	1,176,188
Deferred assets related to regulatory account balances	-	-	56,115	-	-	-	-	-	56,115	-	56,115
Total assets and debit balances of deferred regulatory accounts	**24,606,779**	**2,787,176**	**26,678,471**	**1,553,728**	**9,719,100**	**7,737,864**	**449,472**	**5,732,815**	**79,265,405**	**-3,680,732**	**75,584,673**
Total liability	13,966,376	1,415,644	14,662,315	1,010,327	5,854,651	4,088,042	396,477	5,769,165	47,162,997	-2,578,164	44,584,833
Deferred liabilities related to regulatory account balances	-	-	16,834	-	-	-	-	-	16,834	-	16,834
Total liabilities and credit balances from deferred regulatory accounts	13,966,376	1,415,644	14,679,149	1,010,327	5,854,651	4,088,042	396,477	5,769,165	47,179,831	-2,578,164	44,601,667
Additions to non-current assets	2,460,246	95,397	2,121,829	13,238	708,891	272,050	13,484	126,071	5,811,206	-	5,811,206

Amounts stated in millions of Colombian pesos

46.2. Information by Geographic Area

Revenue from external customers

Country	2023	2022
Colombia (country of domicile EPM)	26,990,621	22,899,462
Guatemala	4,096,869	3,694,625
Panama	3,144,708	2,919,645
El Salvador	1,508,987	1,474,212
Chile	1,094,607	842,828
Mexico	501,239	334,558
Ecuador	148,793	12,570
Bermuda	58,466	51,274
International intersegment elimination	(7,574)	(6,705)
Total countries other than Colombia	**10,546,095**	**9,323,007**
Total consolidated revenues	**37,536,716**	**32,222,469**

Amounts stated in millions of Colombian pesos

Revenue information is based on the location of the customer.

There is no customer in the Group that generates more than 10 % of its revenues.

Non-current assets

Country	2023	2022
Colombia (country of domicile of EPM)	43,060,154	37,982,084
Chile	3,462,714	3,542,859
Panama	2,758,088	3,260,907
Guatemala	3,016,617	3,448,649
El Salvador	457,137	498,764
Mexico	5,302	17,751
Total countries other than Colombia	**9,699,858**	**10,768,930**
Total non-current assets	**52,760,012**	**48,751,014**

Amounts 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 occurring after the reporting period

- On January 31, 2024, EPM filed an extraordinary appeal before the Council of State for annulment of the award rendered by the Arbitral Tribunal promoted by the company Hidroeléctrica Ituango against EPM. The appeal is based on two Lands contemplated in Law 1523 of 2012, that is, having ruled in conscience or equity and the award containing contradictory aspects. In addition, a jurisprudential Land was invoked, namely that the arbitration process did not take into account the preliminary interpretation of the rules issued by the Andean Community of Nations applicable to the case.

  Based on Law 1523 of 2012, EPM also requested the suspension of the economic effects of the award until the extraordinary appeal for annulment is resolved on the merits.

  The annulment appeal was filed with the Council of State on February 26, 2024, after it had been transferred to the company Hidroeléctrica Ituango. On March 8, the appeal was distributed in the Third Section of the Council of State.

- On February 8, 2024, XM delivered $648,856 corresponding to Ituango's reliability charge (including interest), which, in accordance with the provisions of CREG resolution 194 of 2020, had to be administered in a trust until the plant completed the net effective capacity of the first stage, a milestone that was met in October 2023 when units 3 and 4 came into operation.

- On February 27, 2024, EPM's Board of Directors approved a capitalization, a capitalizable loan or a combination of both alternatives to Empresas Varias de Medellín S.A. E.S.P. for up to $337,000, with partial disbursements, during the years 2024 and 2025. It is estimated that the amount to be disbursed in 2024 will be $228,000.

- On February 27, 2024, EPM's Board of Directors approved granting a loan to Caribemar de la Costa S.A.S. E.S.P. AFINIA for $755,000, with a term of 5 years and with an interest rate in accordance with market conditions at the time of its completion; this credit was contemplated in EPM's 2024 budget and current business plan.
- On March 13, a request for a 120-day suspension of the request for voluntary retirement filed on August 1, 2023, was filed with the Superintendence of Health, with the purpose of analyzing the different options and making a decision on the future of the Adapted Health Entity.

After the date of presentation of the consolidated financial statements and prior to the date of authorization of their publication, no other material facts involving adjustments to the figures were presented.

Back to content

Sustainability Report

2023

Grupo EPM's certification

Grupo·epm

Grupo·epm

CERTIFICATION OF FINANCIAL STATEMENTS

Medellín, March 20, 2024

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, 2023 and 2022, were faithfully taken from the accounting books.

The accounting prepared in accordance with the Accounting and Financial Reporting Standards accepted in Colombia (NCIF, for the Spanish original) and the disclosures faithfully reflect the financial, economic, social and environmental situation of Empresas Públicas de Medellín E.S.P. We certify that the assertions contained in the financial statements were verified, particularly those related to:

The facts, transactions and operations were recognized and carried out by Empresas Públicas de Medellín E.S.P. and its subsidiaries during the period from January 1 to December 31, 2023.

That economic events are disclosed in accordance with accounting and financial reporting standards accepted in Colombia (NCIF, for the Spanish original) adopted by the Colombian General Accounting Office through Resolution 037/2017, Resolution 056/2020, Resolution 035 and 0197/2021 and Resolution 267 /2022. These accounting and financial reporting standards are based on the International Financial Reporting Standards issued by the International Accounting Standards Board (IASB), as well as interpretations issued by the Interpretations Committee, adopted in Colombia through Decree 2420/2015 and its amendments.

The total value of the assets, liabilities, equity, revenues, expenses and costs were disclosed in the Consolidated Financial Statements of Empresas Públicas de Medellín E.S.P. and its subsidiaries at December 31, 2023.

The assets represent existing rights and the liabilities represent obligations on the account of Empresas Públicas de Medellín E.S.P. and its subsidiaries at December 31, 2023.

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.

John Alberto Maya Salazar
Legal Representative

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

estamos ahí.

Empresas Públicas de Medellín E.S.P.
Carrera 58 N° 42-125
Conmutador: 3808080 - Fax: 3569111
Medellín-Colombia
www.epm.com.co

Deloitte.

Deloitte & Touche S.A.S.
Nit. 860.005.813-4
Calle 16 Sur No. 43A-49
Pisos 4 y 9
Ed. Corficolombiana
Medellín
Colombia

Tel: +57 (604) 604 1899
www.deloitte.com/co

INDEPENDENT AUDITOR'S REPORT

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

REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

Opinion

We have audited the consolidated financial statements of Empresas Públicas de Medellín E.S.P. and its subsidiaries (Hereinafter "the Group") which include the Consolidated statement of financial position as of December 31, 2023, and the consolidated Statements of Profit or Loss and Other Comprehensive Income, consolidated statement of changes in equity and statement of cash flows for the year then ended on that date, and notes to the financial statements, including a summary of material accounting policies.

In our opinion, the accompanying consolidated financial statements, reasonably present in all material respects, the Group's financial position as of December 31, 2023, the result of its operations and its cash flows for the year ended on that date, in accordance with the Accounting and Financial Reporting accepted in Colombia adopted by the General Accounting Office of the Nation through Resolution 037 of 2017, and its subsequent updates.

Basis for Opinion

We conducted our audit in accordance with International Auditing Standards accepted in Colombia. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the financial statements in Colombia, and we have fulfilled our other responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis Paragraph

Without modifying our opinion, we draw attention to the matters discussed in Note 4.1 to the Consolidated Financial Statements regarding the Ituango Hydroelectric Project contingency and its impact on the financial statements. The Group continues to monitor the progress of the project and is taking all appropriate measures and actions to identify and recognize the accounting impact of this contingency and the actions of the regulatory and environmental authorities. The outcome of the impact on the Group's financial position, results of operations and cash flows is uncertain and will depend on the further development of these events until the completion of the project.

Deloitte se refiere a una o más entidades de Deloitte Touche Tohmatsu Limited ("DTTL"), su red global de firmas miembro y sus sociedades afiliadas a una firma miembro (en adelante "Entidades Relacionadas") (colectivamente, la "organización Deloitte"). DTTL (también denominada como "Deloitte Global") así como cada una de sus firmas miembro y sus Entidades Relacionadas son entidades legalmente separadas e independientes, que no pueden obligarse ni vincularse entre sí con respecto a terceros. DTTL y cada firma miembro de DTTL y su Entidad Relacionada es responsable únicamente de sus propios actos y omisiones, y no de los de las demás. DTTL no provee servicios a clientes. Consulte www.deloitte.com/co/conozcanos para obtener más información.

Deloitte.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of the greatest importance in our audit of the consolidated financial statements as of December 31, 2023. These matters were covered in the context of our audit of the financial statements as a whole, and in forming our opinion on them, and we do not express a separate opinion on these matters. We have identified the issues described below as the key audit issues to be reported in our report.

Impairment Assessment of Long-Lived Assets – Cash Generating Unit (CGU) Power Generation

As described in Note 8.2 of the consolidated financial statements, the Group includes the Cash Generating Unit (CGU) Power Generation EPM.

The Group used the discounted cash flow model to estimate the value in use of the assets associated with the EPM Power Generation CGU, which required Management to make significant estimates and assumptions related mainly to, (1) the historical behavior and growth rates of certain base variables for the projection; (2) the discount rates applied and macroeconomic variables used; (3) the projection period and (4) the growth gradient in perpetuity.

The main considerations for selecting the impairment assessment of the EPM Power Generation CGU as a key audit matter were: 1) the use of important judgments by the Administration to calculate the use value of the CGU and 2) the progress of the Ituango Hydroelectric project, included within the Power Generation CGU. where there is an impact on the projection of cash flows.

Procedures developed by the audit team

Our audit procedures related to the impairment assessment of long-lived assets – Cash Generating Unit (CGU) Power Generation included the following, but were not limited to:

- We evaluated the design and effectiveness of the controls related to the assessment of the amount of use of the CGU by management.
- We evaluated the reasonableness of the assumptions used by management, considering (i) the current and past performance of the Energy Generation CGU, (ii) consistency with external market and industry data.
- We involved specialists with knowledge and experience in valuation who assisted us in: (i) the evaluation of the methodology used to estimate the value-in-use and the development of independent calculations, and (ii) the evaluation of the following inputs and relevant assumptions used in the model: (1) the historical behavior and growth rates of certain base variables for the projection; (2) the discount rates applied and macroeconomic variables used; (3) the projection period; and (4) the growth gradient in perpetuity.

Other Information

Management is responsible for the other information. The other information comprises the information included in the management report but does not include the consolidated financial statements and our accompanying auditors' report.

Deloitte.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of conclusion that provides a reasonable degree of assurance on the other information.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information, and in doing so consider whether the other information contained therein is materially inconsistent with the consolidated financial statements or our knowledge obtained during the audit or appears to contain a material misstatement. If, based on the work we have performed, we conclude that there is material misstatement of the other information, we would be required to report that fact. We have nothing to report on this matter.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

The Administration is responsible for the preparation and correct presentation of these consolidated financial statements in accordance with the Accounting and Financial Information Standards Accepted in Colombia adopted by the General Accounting Office of the Nation through Resolution 037 of 2017, and its subsequent updates, and for the internal control that management considers relevant for the preparation and correct presentation of the financial statements free of material misstatement, whether due to fraud or error.

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

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Independent Auditor's Responsibilities for the Audit of the 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 the International Auditing Standards accepted in Colombia 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 financial statements.

As part of an audit in accordance with International Standards on Auditing accepted in Colombia, the auditor exercises professional judgment and maintains professional skepticism throughout the audit; also:

- We identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error; to design and perform audit procedures responsive to those risks; and to obtain audit evidence that is sufficient and appropriate to provide a basis for the independent auditor's 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.

Deloitte.

- We 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 Group's internal control.

- We evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- We conclude on the appropriateness of 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 report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify the opinion. Our conclusions are based on the audit evidence obtained up to the date of the auditor's report. However, future events or conditions may cause an entity to cease to continue as a going concern.

- We evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- We obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the Group's financial statements; We are responsible for the direction, supervision and performance of the group audit; and We remain solely responsible for our 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 the audit.

We also provide those charged with governance with a statement that the auditor has complied with relevant ethical requirements regarding independence and 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 financial statements of the current period and are therefore the key audit matters. The auditor describes these matters in the 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.

Other Matters

The consolidated financial statements for the year ended December 31, 2022, which are included for comparative purposes only, were audited by us and we expressed an unqualified opinion in our report of March 27, 2023.

Deloitte.

English translation

These consolidated financial statements, notes to the consolidated financial statements and the independent auditor's report were translated into English for the convenience of readers outside Colombia from financial statements originally issued in Spanish.

Deloitte & Touche Ltda.
DELOITTE & TOUCHE S.A.S.
March 20, 2024.

Sustainability Report 2023

Hidroituango Power Plant

‹ Back to content

Table of contents

Hidroituango Power Plant

p.

1. Technical preview 1646

2. EMP (Environmental Management Plan) 1651

2.1. Abiotic environment advances 1651

2.1.1. Air quality management program and air quality monitoring and follow-up program. 1652

2.1.2. Management program of excavation materials 1655

2.1.3. Surface water Management program 1656

2.1.4. Domestic and Industrial Wastewater Management Program 1660

2.1.5. Integrated waste management program 1662

2.1.6. Vehicle traffic impact management program 1666

2.1.7. Source of construction materials management program 1667

2.1.8. Management program of instability and erosion 1669

2.1.9. Macrophytes and floating debris management subprogram 1670

2.2. Advances in the biotic environment 1673

2.2.1. Habitats and organisms Management program 1674

2.2.1.1. Management and wildlife conservation Subprogram: 1674

2.2.1.2. Subprogram for the management and protection of fish and fishery resources in the lower and middle Cauca river basins 1675

2.2.2. Vegetation management and conservation program 1679

2.2.2.1. Biomass removal and forest harvesting subprogram 1679

2.2.2.2. Restoration of vegetation cover Subprogram 1681

2.2.2.3. Sub-program for compensation for vegetation cover damage 1682

2.2.2.4. Orchid, bromeliad and tree fern rescue subprogram 1687

Table of contents

p.

2.3. Advances in the socioeconomic environment 1688
2.3.1. Communication and community participation program 1690
2.3.1.1. Communication for participation project 1690
2.3.1.2. Information and communication project 1692
2.3.2. Restitution of living conditions program 1693
2.3.3. Project - Region integration program 1694
2.3.4. Sociopolitical Monitoring program of the area of influence 1698
2.3.5. Preventive archeology program 1699
2.3.6. Indigenous communities 1699
2.4. Epidemiological surveillance system of public health in the IHP area of influence 1700
2.5. Disaster Risk Management Plan (including Contingency Plan) 1704

3. 1 % Investment 1708
3.1. General procedures 1708
3.2. Line for the purchase of land for the protection of micro-watersheds 1708
3.3. Basic sanitation line 1710

4. SAP (Specific Action Plano) 1711
4.1. Social line 1712
4.2. Housing line 1713
4.3. Accessibility and transportation line 1714
4.4. Health line 1714
4.5. Public Utility line 1715
4.6. Education line 1716
4.7. Environmental line 1717
4.8. Information and communication line 1717

5. Social contracting 1718

‹ Back to content

Sustainability Report 2023

Hidroituango Power Plant

Grupo·epm

1. Technical preview

The **total cost of the Project** amounts to COP 21,109,498 million, of which COP 16,990,186 million have been executed as of December 31st, 2023, compared to a programmed cost of COP 15,930,679 million. Compliance with respect to the program was 106 %, and in relation to the total cost it was 80.49 %.

The **overall progress of the Project as of December 31st, 2023** was 92.56 %. The generation units presented the following progress:

Unit	Progress %	Date of start-up Into operation
Nº1	100 %	November 26th, 2022
Nº2	99.92 %	November 29th, 2022
Nº3	100 %	October 27th, 2023
Nº4	100 %	October 27th, 2023

** In the upper pipeline 2, a section of approximately 28 meters, which had not been completed at the time of the contingency, was left to be encased in concrete.*

The **following activities were carried out for the start-up of units 3 and 4** in October 2023:

- In units Nº3 and Nº4, the assembly activities were completed, which include embedded equipment, turbine, generator, electrical systems and instrumentation, mechanical systems, piping and insulated phase ducts.
- Completed the assembly of the shielding and concretes in pipelines 3 and 4, which includes lower elbow, vertical shaft and upper elbow.
- Completed the pouring of the final concrete plugs located in upper elbows 3 and 4.
- The demolition of the temporary concrete plugs in the upper pipelines 3 and 4 was completed."Hot tapping" perforations, as well as the construction of the infiltration water management system were executed, followed by the depressurization process and finally the demolition.

- Regarding underwater works, the installation of metal bulkheads 3 and 4 as well as *grouting* were completed. Underwater activities to proceed with depressurization were released on September 13 and 15, respectively.

Likewise, **the following tests were performed on units 3 and 4 prior to their commissioning** prior to their commissioning:

- Dry tests (type A), of turbine and generator subsystems.
- Cylindrical valve and distributor dry tests.
- Completed dry tests (type A) with transformer energization and thyristor testing of the excitation system.
- Dead water tests (type B): The partial filling of the suction pipe up to 204 masl was completed, as well as thecooling system tests were completed with closed and open water circuits.
- Type B tests or dead water tests, filling the suction pipe up to 223 meters above sea level, as well as seal tests, cover drainage and turbine bearing.
- Once the work on the plugs was released, we proceeded with the type C tests (dynamic tests without load) and type D tests. (dynamic tests with load).

In October 2023, EPM successfully synchronized power generation units 3 and 4 of the Ituango Hydroelectric Plant Project. Subsequently, on October 26th, 2023, after performing the sequence tests in automatic start-up and load rejection, it generated 1200 MW with the 4 synchronized units.

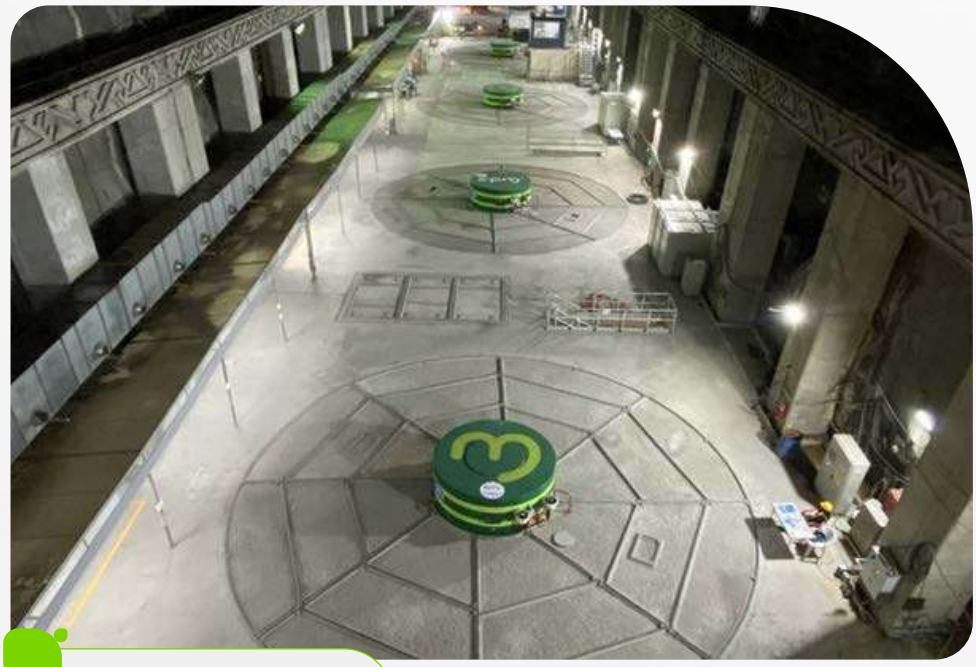
Unit 3 began commercial operation on October 28th, 2023 at 0:00 hours; unit 4 began commercial operation on October 31st, 2023 at 18:00 hours.

Subsequently, they were registered in the National Interconnection System. The operator XM approved their commissioning as they complied with the country's regulatory requirements.

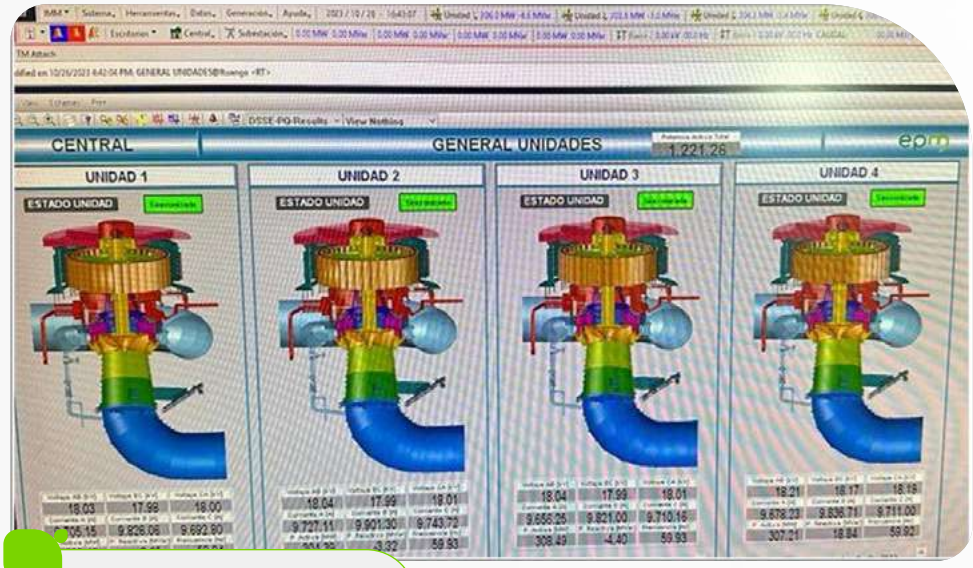
The main **advances in the contracting processes** were as follows:

- **Contracting process for the construction of the final civil works for the commissioning of generation units 5 to 8:**
  - **Contractor:** contract awarded to Consorcio CyS (formed by the firms Yellow River Co., Ltd. Sucursal Colombia and Schrader Camargo S.A.S.) for COP 1,075,895 million.
  - **Start date:** December 20th, 2023.
  - **Activities in progress:** review by the auditors of work programs, personnel résumés and other initial documents and information.
  - Currently in the process of mobilization.
- **Contracting process for the definitive plugging of the TDD (Right Diversion Tunnel):**
  - **Contractor:** contract awarded to the firm Schrader Camargo S.A.S. for a value of COP 125,523 millions.
  - **Start date:** October 23th, 2023.
  - **Activities in progress:** drilling for injections in pre-cap 1, installation of non-return valves in pre-cap 2, Adequacy of pits and drains, assembly of concrete plant and production of synthetic material for the formation of the filter in pre-catchment 2.
- **Contracting process for slope stabilization at Km 0. + 900 - left bank road Ituango dam:**
  - **Contractor:** awarded to Estyma Estudios Y Manejos S.A. for COP 55,475 million.
  - **Start date:** November 29th, 2023.
  - **Activities in progress:** In zone A, the upper part of the slope, work began on the adaptation of the access road, forestry use and rock gardens.
  - In zone D, lower part, the drilling of deep drains along the left bank of the industrial road began.

- **Underwater work:**
  - **Contractor:** DCN.
  - **Start date:** December 20th, 2023.
  - **Activities in progress:** maintenance of mechanical equipment located on the barges; on December 19th, 2023, the transportation of bulkhead 2 and the reinforcement ring. Bulkhead 2 is scheduled to arrive on February 26th, 2024.
- **Consulting during construction:**
  - **Contractor:** Consorcio Generación Ituango.
  - **Start date:** April 14th, 2011.
  - **Completion date:** August 31st, 2024.
  - Currently, the planning stage is underway for modification deed 16- AMB16, which will be aimed at extending the term of the contract. and increase its value by the resources required during its expansion.



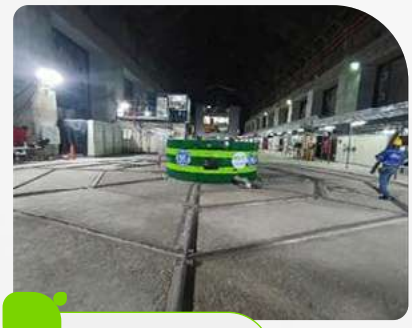
Powerhouse.
Generation units 1 to 4.



Synchronized **generation units 1 to 4.**

Underwater work: removal of the mechanical bulkheads of catchments 3 and 4.

UG03 – Joint generator.



UG04 – Joint generator.

2. EMP *(Environmental Management Plan)*

2.1. Abiotic environment advances

The EMP and the PMS (Monitoring and Follow-up Plan) for the prevention, mitigation, control and compensation of the impacts caused to the abiotic environment, which were authorized by the ANLA (National Environmental Licensing Authority) through Resolution 0155 of 2009, include 10 programs and two subprograms, as shown in the following table. It is important to mention that, via follow-up, the ANLA requests adjustments to the activities, indicators, and goals of certain programs. Thus, on December 19th, 2022, Resolution 2988 authorized the adjustment via follow-up to the "Sediment, fluvial dynamics and bathymetry monitoring program".

Code	Program name	Date of last authorized version
PMA-FIS-01	Air quality management program	October 2011
PMS-FIS-01	Atmospheric quality monitoring and follow-up program	October 2011
PMA-FIS-02	Excavation material handling program	October 2011
PMA-FIS-03	Surface water management program	October 2011
PMS-FIS-03	Surface water monitoring and follow-up program	October 2011
PMA-FIS-04	Domestic and industrial wastewater management program	October 2011
PMS-FIS-04	Domestic and industrial wastewater monitoring and follow-up program	October 2011
PMA-FIS-05	Integrated waste management program	October 2011
PMS-FIS-05	Integral waste management monitoring and follow-up program	October 2011

Code	Program name	Date of last authorized version
PMA-FIS-06	Vehicle traffic impact management program	October 2011
PMA-FIS-07	Construction materials source management program	October 2011
PMA-FIS-08	Instability and Erosion Management Program	October 2011
PMS-FIS-08	Instability and erosion monitoring program	October 2011
PMS-FIS-09	Sediment monitoring program, fluvial dynamics and bathymetries	October 2011
PMA-FIS-10	Reservoir management program	October 2011
PMA-FIS-10-01	Reservoir operation subprogram	October 2011
PMS-FIS-10-02	Macrophytes and floating debris management subprogram	October 2011
PMS-FIS-10-02	Macrophytes and floating debris monitoring and tracking program	October 2011

The main advances of each of the abiotic environment programs and subprograms for the year 2023 are presented below.

2.1.1. Air quality management program and air quality monitoring and follow-up program.

The following activities were carried out during 2023:

- Moisturizing of the paved roads, unpaved roads, warehouse areas, construction sites, and industrial areas. In order to minimize particle detachment.
- Use of encapsulated power plants to control noise generation.

- Covering of the material transported in the dump trucks, in order to minimize the generation of particulate material.
- Use of sprinkler systems in industrial roads of the Project.
- Periodic maintenance of machinery and equipment working in the different work fronts.

In addition, 106 atmospheric monitoring campaigns were carried out: monitoring pollutant gases, particulate matter, environmental noise, offensive odors and biogas at the Bolivia landfill.

See | Figure 1

These monitoring campaigns were carried out through laboratories duly accredited by Ideam, complying with the established methodologies and standards, and the results obtained allow to conclude that the air quality in the Ituango Hydroelectric Project is good, that is, the development of the construction works did not negatively affect the environmental conditions of its surroundings, nor did it affect the health conditions of workers or stakeholders.

Ambient air quality monitoring 2023

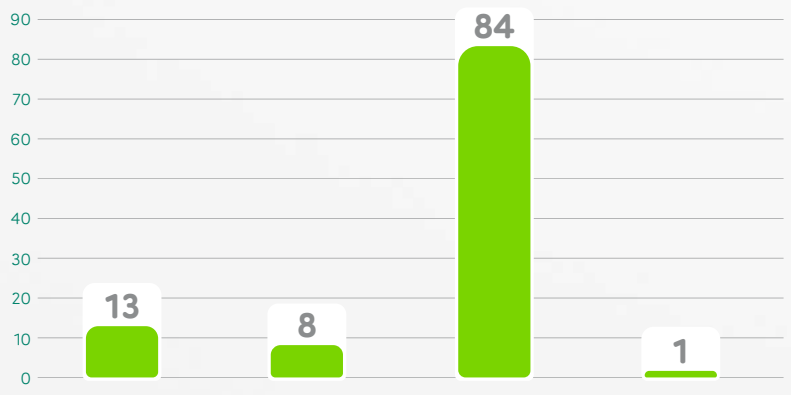


Figure 1
Atmospheric quality monitoring

The atmospheric component management process and the programs that comprise it are summarized in Figure 2.

See | Figure 2

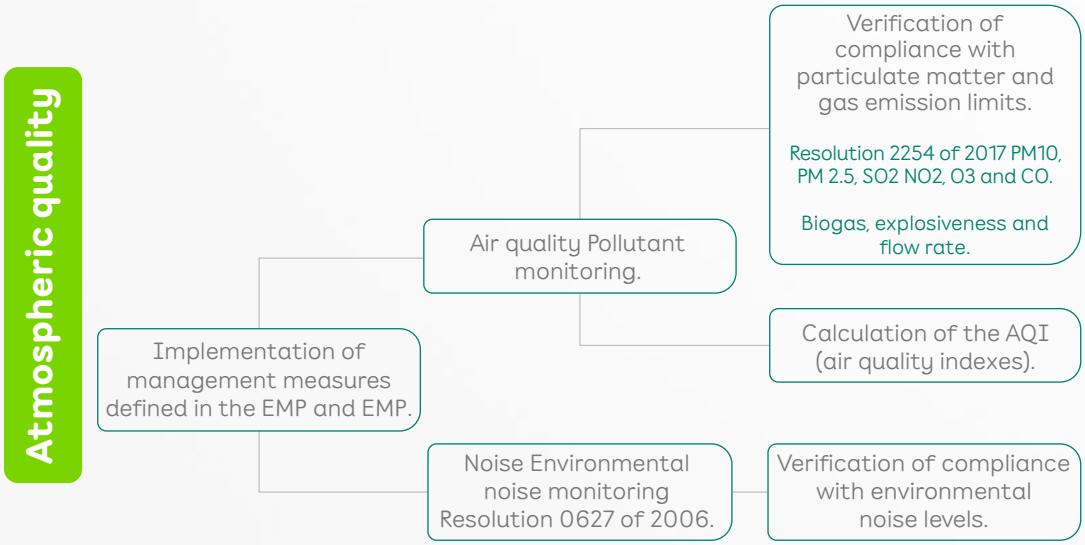


Figure 2
Atmospheric component management

The **air quality measurement points and measurement stations** used in the campaigns are presented below:

Measurement	Points	Photographic record
Air quality	San Andrés de Cuerquia	Measurement of atmospheric quality, San Andrés de Cuerquia.
	Hospital Sector	
	San Andrés de Cuerquia	
	La Cancha Sector	
	El Valle	
	Loan area Plazoleta Norte	
	Leanding area El Palmar	
	Landfill Bolivia	

Measurement	Points	Photographic record
Noise	San Andrés de Cuerquia	Environmental noise measurement, Camp Tacuí.
	Hospital Sector	
	San Andrés de Cuerquia	
	La Cancha Sector	
	El Valle	
	Loan area Plazoleta Norte	
	Camp Tacuí	

2.1.2. Management program of excavation materials

Activities were carried out to avoid and minimize impacts on the air, water and soil during excavations carried out for the construction of infrastructure and **works required for the project:**

- Removal of excavation and landslide materials for subsequent disposal in authorized Zodmes *(deposit areas)*.
- Conformation and final compaction of the materials disposed in the Zodmes.
- Construction and maintenance of drainage works.
- Final revegetation of the used areas that reach their total storage capacity, according to the authorized volumes in the environmental license to ensure the establishment of vegetation.

Location Zodme - Ticuitá 2 or south in main works.

Observation Arrangement and conformation.

Location La Uriaga Depot. Body K 24 +800. Track maintenance.

Observation Final shaping of slopes and berms, closure and abandonment activities.

Location Zodme - Humagá 1 road maintenance.

Observation Ditch cleaning and drainage works.

Location Zodme – La Cumbre track maintenance.

Observation Ditch cleaning and drainage works.

2.1.3. Surface water Management program

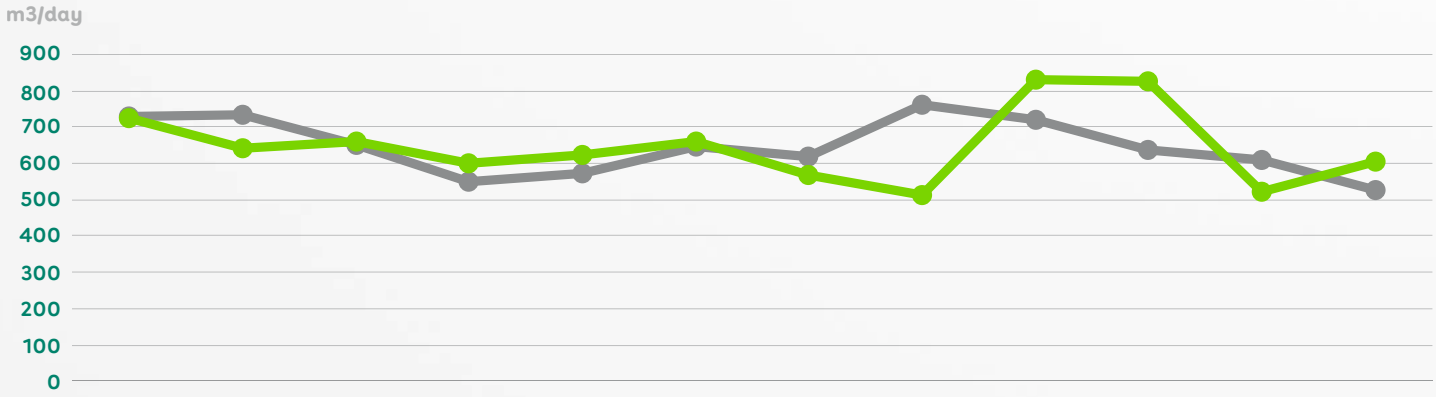
It seeks to reduce the impacts that could be generated on water resources, for which **different activities were implemented, such as:**

- Water source gauging.
- Follow-up on the use of the resource.

- Operation of water intakes.
- Construction of ditches and channels, on roads and reservoir areas.

In 2023, the Project had 8 active water intakes, from which water was collected for the different active work fronts. If we compare the consumption of 2022 and 2023, the volume captured remains in the same proportions, considering that there were high peaks of personnel linked to the entry of the generation units 1 to 4. The following graph shows the behavior of the volume collected for both years.

Volume captured 2022 vs 2023



	jan	feb	sea	apr	may	jun	jul	aug	sep	oct	nov	dec
	729	736	653	548	571	646	619	761	723	638	609	527
	727	643	660	600	625	658	569	512	830	827	523	603

Figure 3
Comparison of captured flows 2022 vs 2023

Tablones Creek. Maintenance of capture structure.

Tacuí Creek. Maintenance of capture structure.

Puerto Valdivia - Presa road, km 31+700: Reconstruction of ditch to protect a surface spring.

Quebrada Bolivia, maintenance of valve boxes.

As part of this program, the streams, reservoir and Cauca River upstream and downstream of the project are permanently monitored. During 2023, 1,784 samples were taken and 17,123 laboratory analyses were performed.

From the results obtained from the monitoring it can be determined that the quality of the water that reaches the tail of the reservoir up to Nechí has an average quality. However, the quality values are improved by the reservoir, going from an average value of 62 units upstream to 71 units at the Project discharge, as can be seen in the following graph:

Water Quality Index
AQI NFSWQI

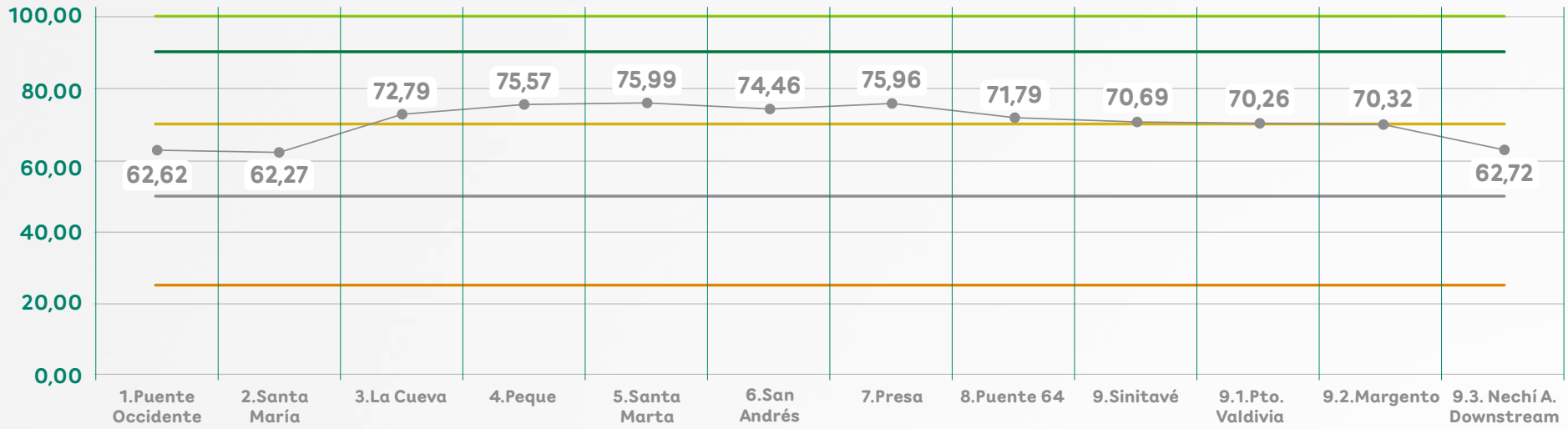


Figure 4
Water Quality Index – AQI NFSWQI

2.1.4. Domestic and Industrial Wastewater Management Program

Its purpose is to minimize the impact on water due to wastewater discharges generated in the different facilities of the project, for which activities such as **the following were carried out:**

- Treatment of both domestic and industrial wastewater.
- Permanent monitoring of discharges and receiving water sources.
- Portable sanitary systems for construction site fronts.

During the year 2023, strategies for the treatment of domestic and industrial wastewater continued, ensuring that there were no discharges of pollutants into water sources.

In one of the Project's concrete plants, called "El Retoño Plant", sedimentation units of the *STARnD* - Non-domestic wastewater treatment system were built to avoid discharges into the soil and water.

Pressure wells: maintenance of portable sanitary units.

El Retoño Plant Observation: maintenance mechanical sedimentation system.

Capitanes Sector - sedimentation pool. Observation: adaptation of sedimentation pools for ARnD treatment.

STARnD non-domestic wastewater treatment system. Jarillón Capitanes Sector: RnD Monitoring - Chemilab Laboratory.

As good engineering practices, the project has focused on the prevention and separation of industrial and seepage water from the source, which has led to a decrease in the flows discharged to the Jarillón Capitán and Descarga 3 systems over time, as shown in the following graphs:

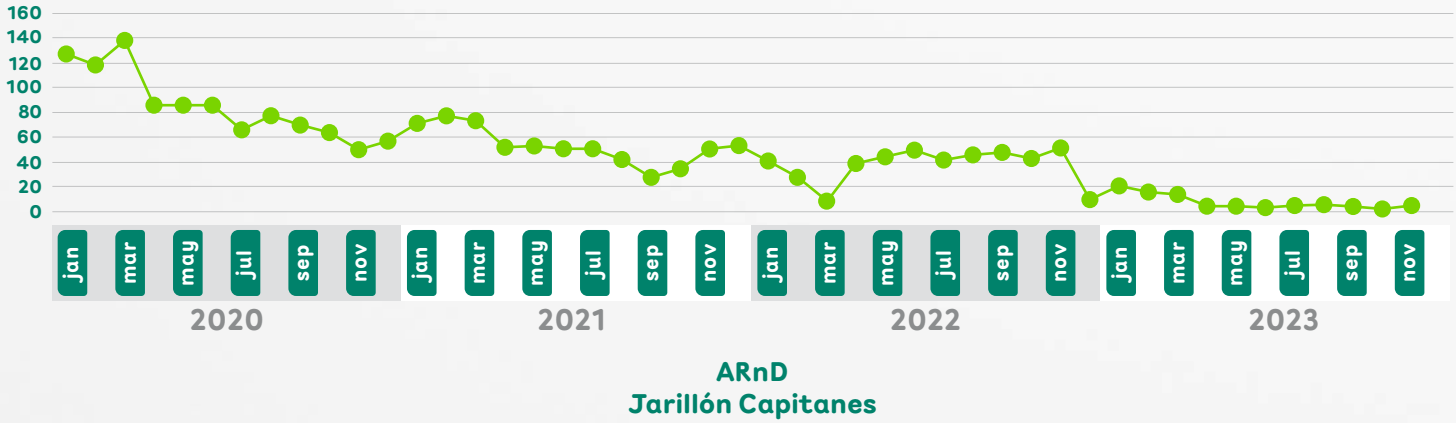
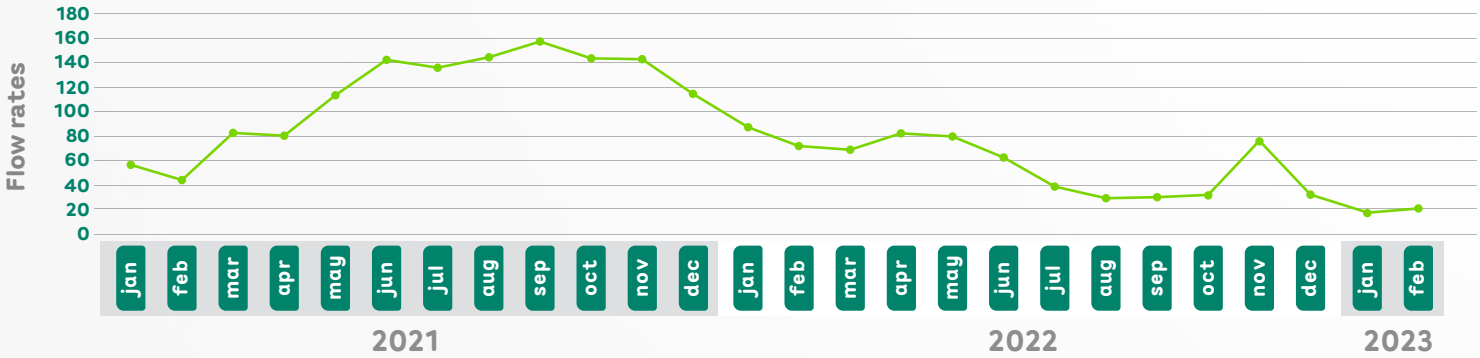


Figure 5
Discharged flows Jarillón Capitanes



ARnD
Download 3

Figure 6
Flow rates

In relation to the monitoring of ARD (domestic wastewater) and ARnD (non-domestic) (industrial), 98 samples and 3,326 laboratory analyses were taken from ARD and 92 samples and 4,060 laboratory analyses from ARnD.

2.1.5. Integrated waste management program

The purpose of this program is to mitigate the impacts that may be generated during the different stages of construction and operation of the project by minimizing the risks of altering the quality of surface water resources, generating offensive odors, altering air quality, altering the visual perception of the landscape and soil quality.

The implementation of **integrated waste management** is based on adequate awareness and education of the waste generators, which in this particular case, involved the Project's employees and contractors to generate environmental commitment and responsibility.

Integral waste management was divided into the following **typologies:**

- Integral management of non-hazardous waste.
- Integral management of hazardous waste.
- Integral management of special was.

For each of these typologies, the phases of separation, collection, use, transportation, treatment and final disposal of waste are contemplated according to their classification, where compliance with current regulations and technical standards is ensured, guaranteeing the adequate management of the different types of waste.

With follow-ups and inspections carried out at generation sites, temporary stockpiles and external managers, compliance with the different management phases was evidenced. For proper separation at the source, there were color-coded containers according to typology, in accordance with Resolution 2184 of 2019.

Image color code for waste separation in Colombia Resolution 2184 of 2019

Note
Retrieved from: https://archivo.minambiente.gov.co/index.php/noticias-minambiente/4595-gobierno-unifica-el-codigo-de-colores-para-la-separacion-de-residuos-en-la-fuente-a-nivel-nacional

Hazardous waste management is carried out based on current environmental regulations, which require annual reporting as hazardous waste generators on a platform provided by the Ministry of Environment and Sustainable Development, which can be consulted at the following link: http://rua-respel.ideam.gov.co/mursmpr/index.php

Location Caverns complex.

Observation Containers ecological point.

Location Assembly room - Underground power.

Observation Waste collection of the ecological point.

Location Ticuitá.

Observation Loading of waste timber for transfer to temporary storage.

Location Waste collection - El Palmar workshop.

Observation Loading of waste hazardous materials for external management.

The following is a graphic presentation of the **integral waste management process at the Ituango Hydroelectric Project.**

Environmental management plan

- Generation of hazardous waste → Separation at source → Storage → Treatment
- Generation of non-hazardous waste → Separation at source → Storage → Use or final disposal
- Generation of special waste → Separation at source → Storage → Use or final disposal

Transversal

- Awareness and environmental education campaigns
- Field follow-up
- Visits to waste managers
- Elaboration of ICA (Environmental Compliance Report)

2.1.6. Vehicle traffic impact management program

During 2023, the roads were humidified by means of tanker cars, sprinkler irrigation systems were implemented, and the impacts generated by particulate matter during vehicular traffic were mitigated.

In addition, various road safety campaigns were carried out: awareness-raising talks, dissemination of road safety rules, induction on the strategic road safety plan, and the Project's safety brigade among others, were on hand to assist in dealing with road incidents.

The maximum speed limit allowed in the Project is 40 km/h, which favors the protection of fauna on the road.

Location
Valle - Presa road, km 4+010.

Observation
Installation of regulatory signage.

Location
km 4+994 right margin of the San Andres - El Valle.

Observation
Replacement of preventive road signs.

Location

Access road to El Palmar yard.

Observation

Road controllers, to regulate vehicular traffic at the access to the El Palmar yard.

Location

Dam backwater road.

Observation

Maintenance of the roadway for safe transit and mitigation of particulate matter.

2.1.7. Source of construction materials management program

The activities of this program seek to minimize impacts on water, soil, air, and flora. The program promotes adequate environmental management of areas where construction materials have been or will be extracted and exploited. During the period, revegetation activities were carried out in exposed areas, repair of drainage works, surface water management and vegetation spreading in the areas of material sources. **Actions such as the following were** also implemmented:

- **Air quality:** humidification of access roads and exposed areas, tarping of vehicles for transporting materials.
- **Water quality:** rainwater and runoff water management through drainage works, repairs and maintenance.
- **Closure or abandonment plan:** final shaping of the exposed areas and repair of drainage works, with the purpose of improving the stability of the soil, avoiding erosion processes and minimizing the impact of landscape deterioration.

- **Continued revegetation** of the areas where the extraction of materials and planting of native tree species were carried out in stages 6 and 7 of the El Palmar exploitation zone.

Source of materials El Palmar 4. Revegetation by planting stolons.

Reinforcement and revegetation work in the El Palmar 4 source of materials in the area of stage 7.

Source of materials El Palmar 4. Revegetation in the area of stage 6 by planting stolons.

Source of materials El Palmar 4, stage 6. Repair of gutter in geomembrane and bags.

2.1.8. Management program of instability and erosion

Its objective is to prevent, avoid and minimize the impact generated on the soil and water by erosion or instability processes that may occur during the development of the Project's activities, as well as, in some cases, to prevent erosion or instability processes generated by natural phenomena that may impact the works.

In order to meet this objective, **the following activities are carried out:**

- Profiling and shaping treatments of slopes and affected areas, drilling and installation of drains at unstable slopes, construction of drainage works to control surface and infiltrated water and the revegetation of slopes.
- Treatment of areas with erosive processes or instability through shaping, drainage works and revegetation.
- Treatments with electro-welded mesh and shotcrete, subdrains and bolting.

In addition, **instability and erosion monitoring** continued at 70 sites on the edge of the reservoir and downstream of the project, on the Puerto Valdivia - Dam road, as well as in other works of the power plant. Where possible, slope treatment measures were designed and implemented.

Location
El Valle - Presa road, km 3+700 to km.

Observation
Drilling and installation of drains for unstable slope drainage.

Location
Industrial access road to Humagá 1 and 2 reservoirs.

Observation
Activities of slope cutting for stabilization.

Location

Site 7. Orobajo sector. Municipality of Sabanalarga.

Observation

Site monitoring of instability and erosion.

Location

Site 64, K 0 + 900. Sector near the dam, left margin. Municipality of Ituango.

Observation

Site monitoring **of instability and erosion.**

2.1.9. Macrophytes and floating debris management subprogram

This subprogram focuses on the **control of macrophyte plants (water hyacinth) and floating waste in the reservoir.** Within the framework of the actions outlined in the EMP, the floating waste and macrophytes are being properly managed and disposed of. The **main activities** of this programs were:

- Confinement of the plant material (buchon and floating residues).
- Removal from the reservoir.
- Separation.
- Classification.
- Treatment.
- Final disposal.

For mechanical extraction there are two active ports in Sabanalarga called Mameyes and Bocas de Niquía; three other ports called La Pista, Arenal, and Algarrobo, although not in operation, are available in case of any contingency or change in the conditions of the reservoir.

As for the disposal of the floating material in the middle zone of the reservoir, there were collection points named G1P4- Mameyes, Algarrobo, Meseta El Ciruelar, La Pista and La Pená, where the floating material was collected and handled in accordance with the guidelines of the EMP.

Mechanized extraction of floating material.

Wood collection point, Toledo Valley.

Stacking of extracted floating material. Mameyes Sector.

Harvesting of wood extracted from the reservoir - JAC El Valle.

As a complement to the mechanized extraction and a more precise control strategy, manual extraction is also carried out. The activity is carried out with the support of the Asocomunal (Associations of Community Action Boards) of the municipalities of Sabanalarga, Ituango and the JACs (Community Action Boards) of Mogotes, Angelina and El Valle de Toledo, which were hired through social contracting, generating more than 80 direct jobs.

In compliance with the environmental license obligations, it must be ensured that the macrophyte coverage in the reservoir does not exceed 20% of the reservoir area. For this purpose, weekly monitoring of the coverage was carried out by processing satellite photographs with a software called Planet in which the images were contrasted with the evidence recorded in the field. During 2023, the area covered by macrophytes in the reservoir did not exceed 2.7%, as shown in the following figure:

Measurement of reservoir occupancy

Area convered

27 %

of the reservoir area

82,309

hectares

2,7 %

According to the environmental license, the maximum authorized area is 20% of the reservoir's coverage.

0 - 7,9%	Fulfilling
8 - 13,9%	Increasing extraction actions
14 - 17,9%	Activation of contingency plan for floater control
18 - 100%	Undesired condition. Contingency plan incorporates support from other areas of EPM.

Statistics analysis December 31, 2023

Item	Area Ha
Reservoir Area	3094.298
Max covered area	618.859
Area with floating material	82.309
% Covered Reservoir	2.66
State	Fulfilling

Figure 7
Area with macrophyte cover in the reservoir

2.2. Advances in the biotic environment

The PMA and the PMS for the prevention, mitigation, control, and compensation of the impacts caused to the biotic environment consist of two programs and six subprograms, as shown in the following table. It is important to mention that, through follow-up, ANLA requests adjustments to the activities, indicators, and goals of some programs, as occurred on December 19, 2022, when Resolution 2988 authorized the adjustment through follow-up to the "Sediment, fluvial dynamics and bathymetry monitoring program.

Code	Program name	Date of last authorized
WFP-BIO-01	Habitat and organism management program	October 2011
PMA-BIO-01-01	Wildlife conservation and management subprogram	October 2011
PMS-BIO-01-01	Subprogram for monitoring wildlife management and conservation	October 2011
WFP-BIO-01-02	Subprogram for the management and protection of fish and fishery resources in the lower and middle Cauca river basins	February 2018
PMS-BIO-01-02	Subprogram for monitoring and conservation of fish and fishery resources in the lower and middle Cauca river basins.	February 2018
PMA-BIO-02	Vegetation management and conservation program	October 2011
PMA-BIO-02-01	Biomass removal and forestry harvesting subprogram	October 2011
PMA-BIO-02-02	Restoration of vegetation cover subprogram	October 2011
WFP-BIO-02-03	Sub-program for compensation for vegetation cover damage	October 2018
PMA-BIO-02-04	Subprogram for the rescue of orchids, bromeliads and tree ferns	July 2013

2.2.1. Habitats and organisms Management program

This program is divided into two subprograms: **management and conservation of wildlife** and **management and protection of fish and fishery resources** in the middle and lower Cauca river basins.

2.2.1.1. Management and wildlife conservation Subprogram:

The activities carried out in this subprogram are aimed at minimizing the impacts caused by the construction and operation of the Project on wildlife, as well as monitoring and follow-up in the area of influence of populations and species with high conservation value.

During the year 2023, in the different work fronts, the activities of scaring, controlled dispersal, rescue and release of wildlife continued. The CAV (Wildlife Care and Assessment Center) provided care and management of wildlife that could be affected by the different works and activities, as part of the obligations described in the environmental license.

In addition to the above, the CAV continued to receive individuals from Corantioquia, thus contributing to the protection and conservation of wildlife in the territory. During this period, approximately 191 individuals were attended, 141 of which arrived through the Corporation. The entry into operation of the power plant and the decrease in construction activities and active work fronts have resulted in fewer wildlife individuals at risk or with conditions that require management.

The effectiveness of the wildlife overpasses installed on the Project's roads continues to be evaluated, which showed a reduction in the number of cases of individuals being run over and a decrease in electrocution events in areas such as Ticuitá (industrial zone). This strategy included the installation of camera traps and the use of bait as attractants.

Wildlife monitoring was conducted periodically in the compensation area to evaluate changes in the composition and structure of wildlife populations and their association with vegetation cover. Also, in 2023, the study entitled "Design, implementation and socialization of strategies for monitoring, follow-up, management, protection and conservation of focal bird species present in the area of direct influence of the Project" was completed. Based on the results obtained, monitoring and follow-up of species such as the green macaw *(Ara militaris)*, paisa cockatoo *(Thryophilus sernai)* and candela cacique *(Hypopyrrhus pyrohypogaster)* will continue.

Installation of camera traps for wildlife identification.

Installation of silhouettes of birds of prey to scare away wildlife.

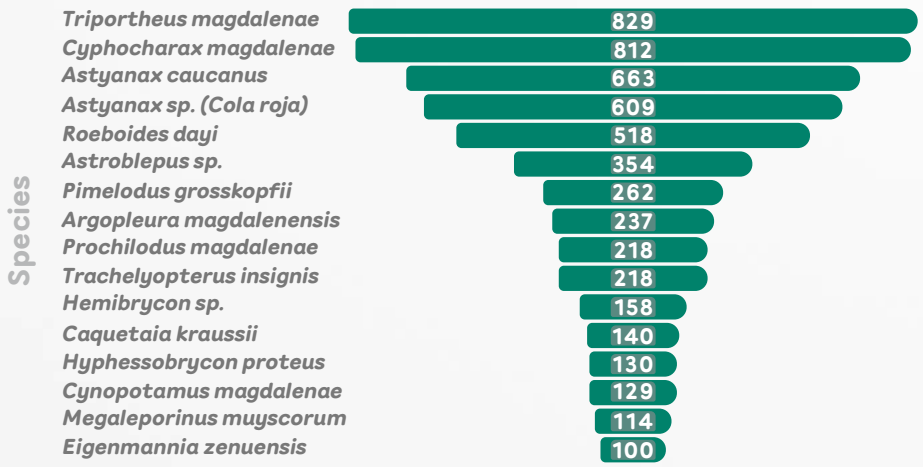
2.2.1.2. Subprogram for the management and protection of fish and fishery resources in the lower and middle Cauca river basins

During 2023, the three main monitoring activities continued:

- Monitoring of the association of localized fish species.
- Monitoring the reproductive activity of migratory species (spawning areas and migratory routes).
- Monitoring of fishing activities.

As for the determination of the composition and structure, monitoring was carried out in 92 stations through a contract with the University of Antioquia. 87 species were identified in these stations, the most abundant being the tolomba (*Triportheus magdalenae*), el viejito (*Cyphocharax magdalenae*) and the sardine (*Astyanax magdalenae*).

Abundance

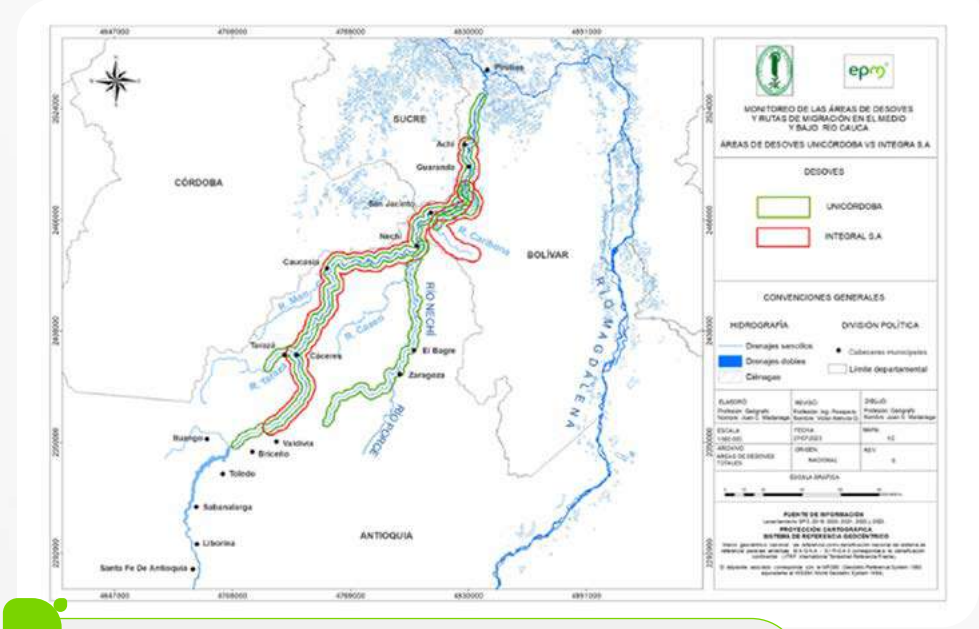


Abundance of fish in the lower and middle Cauca river basin.

On the other hand, **spawning areas were evaluated** in the reproductive periods, a low reproductive activity of fish upstream of the reservoir was identified, in the reservoir and in its tributaries. In the reservoir, **fish spawning activity was detected,** but none of the rheophilic (migratory) type; while in the tributaries of the reservoir, no spawning activity was detected, neither migratory nor sedentary fish.

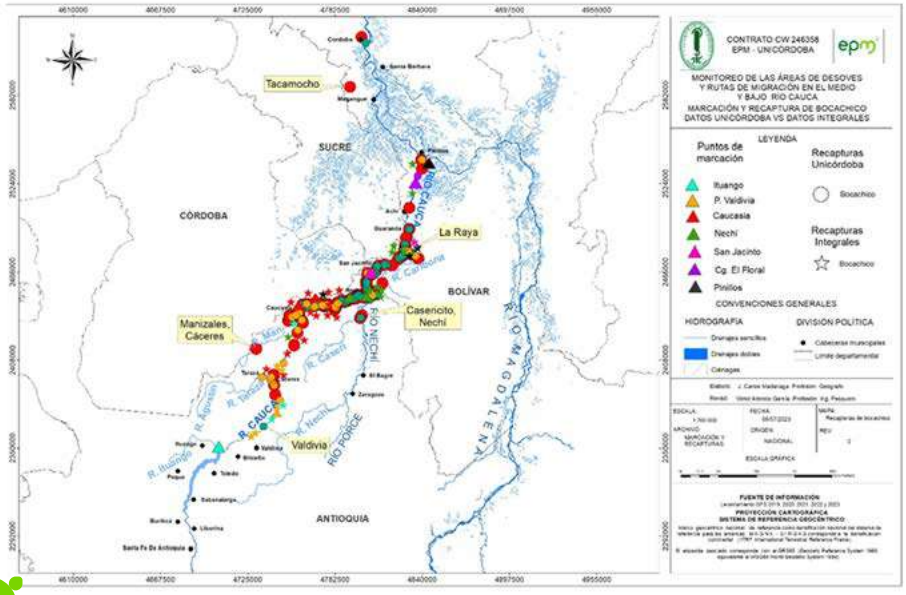
The capture of eggs and larvae and the estimation of developmental time suggested that, downstream of the IHP, fish spawned between Las

Agüitas (Ituango, 0.0 km from the IHP) and Santa Monica (Achí, 318.0 km). Migratory species accounted for 47.6 %, consisting mainly of bocachico (22.5 %), comelón (19.3 %) and arenca (18.2 %); other relevant groups were Ast. spp (28.4 %) and Other species (1.8 %).



Location of spawning areas downstream of the IHP in the main channel of the Cauca River and its tributaries.

The **mark-recapture analysis** indicated an average distance of (29.9±39.9 km) and maximum distance traveled (380.0 km); as well as the average daily (4.6±7.8 km/day) and maximum daily speed (82.4 km/day), for bocachico, comelón, blanquillo, striped catfish and pataló, which made medium migrations (100 to 500 km); while vizcaína, arenca and chango made short migrations (<100 km). Migrations occurred between the swamp complexes of the Mojana Bolivarense (ciénagas El Floral, Jardín, Grande, La Sodora) and Puerto Valdivia (~400 km); but migrations originating from these swamp complexes were dispersed mainly in maturation and spawning areas between Achí and Cáceres.



Bocachico recapture sites in the lower Cauca river basin.

In relation to fishing dynamics, activities were carried out in three strata of the Cauca River: upper, middle and lower, to collect data on catches per unit of effort and trade, as well as size, weight and sexual maturity of the different fish in this area.

Fishing data reflected an increasing trend in the total monthly catch from 2019 onwards. The importance in terms of production of the lower stratum with maximum monthly values of up to 273 t/month, followed by the middle stratum (89.7 t/month) and the upper stratum or reservoir zone (8.1 t/month). The trend behavior in 2023 was stable, with patterns normal to those recorded in the Magdalena basin; increases in periods associated with sub-stocking at the end and beginning of the year (fish migration).

During the year 2023, 45 species subject to fishery use were recorded, being (biomass), the bocachico *(Prochilodus magdalenae)*, striped catfish *(Pseudoplatystoma magdaleniatum),* eel *(Megaleporinus muiscorum)* and tilefish *(Sorubim cuspicaudus)* the ones that contributed most to the catch. These four species contributed 86.9% of the total biomass for this period, while the contribution of exotic and transplanted species was 2.1%, including tilapia or mojarra lora *(Oreochromis niloticus)*, cachama blanca *(Piaractus brachypomus)*, cachama negra *(Colossoma macropomum),* basa *(Pangasionodon hypophthalmus)* and trout *(Trichopodus pectoralis)* in the entire study area. As for migratory species, in the reservoir and upstream, they contributed 63.9% of the catch (kg), while downstream of the reservoir these species contributed 89%.

Striped catfish in the process of collecting monitoring data in the Cauca River.

2.2.2. Vegetation management and conservation program

2.2.2.1. Biomass removal and forest harvesting subprogram

This subprogram **addresses the impacts generated on flora, landscape and wildlife,** in the work areas, roads and campsites, as well as in the reservoir basin. These were the **activities in 2023:**

- Adequacy of roads and road maintenance.
- Topographic alignment in forested areas to be removed.
- Scaring or rescue of wildlife and rescue of epiphytes and other plant species in the areas to be removed.
- Logging, transport and storage of forest products or by-products.

The subprogram began in 2010, as part of the opening of roads for access to the main work area. By the end of 2023, forest harvesting of the Ituango Hydroelectric Project totaled 1,499 ha, considering the reservoir and other works (roads, camps, industrial areas, dam wall and geotechnical stabilization works), with a total volume of forest biomass removed equivalent to 141,047.2 m3.

Given that the preventive measure imposed in Resolution 820 of 2018 has not been lifted there is still an ANLA restriction to finish removing the vegetation that still remains standing in the area of the reservoir basin.

Location

Puerto Valdivia – Dam wall (Ituango) road.

Observation

Verification of forest census in maintenance work road *(programmed felling schedule of ceiba tronadora-Hura crepitans).*

Location

Vía dam Wall – El Bombillo (Ituango).

Observation

Preparation for logging of the pisquin tree *(Albizia carbonaria)* in road works maintenance of roads.

Location

Dam wall – El Bombillo (Ituango).

Observation

Felled pisquin tree (Albizia carbonaria), in process of delimbing and cutting for removal y of forest residues.

Location

Camp of the road maintenance contractor (Toledo).

Observation

Use of harvested wood (pisquín tables) in the assembly of installations and temporary structures.

2.2.2.2. Restoration of vegetation cover Subprogram

The activities carried out under this subprogram focused on the recovery of the vegetation cover by providing native trees from the Cauca River canyon, established in the protection strips of the reservoir, in the municipalities of Peque, Sabanalarga, Toledo, Ituango and Buriticá.

By 2023, a total of 572.8 hectares were reforested, with the planting of more than 142,000 native trees of about 20 species of dry and humid tropical forest. Areas that were historically degraded were used, and some areas were connected to the protection strips, which encouraged the environmental care of the enriched areas, and through social contracting, local labor was employed, which generated well-being in the neighboring communities.

Additionally, to deliver high quality plant material, the Ituango Hydroelectric Project has a nursery with a production capacity of 300,000 seedlings per year, located in the municipality of Ituango, Los Galgos, El Palmar sector. This nursery has produced more than 1,367,000 trees, of which 210,000 were produced in 2023 with seeds of more than 30 species of trees native to the middle canyon of the Cauca River.

Growing areas in the El Palmar nursery.

El Palmar nursery germinator.

Finally, as a result of the agreement with the Fundación Jardín Botánico Medellín, phenological characterization and germination protocols were carried out for twenty species, and the phenological patterns of ten species were analyzed: *Astronium graveolens, Centrolobium yavizanum, Cnidoscolus tubulosus, Cnidoscolus urens, Cryosophila kalbreyeri, Eriotheca roseorum, Eschweilera pittieri, Hura crepitans, Hymenaea courbaril, Pachira quinata,* of conservation interest, in the forest compensation and protection zones of the reservoir, resulting, among others, in a phenological calendar with which it will be possible to determine, according to the climatic season, in which stage each species is found. This study is very important since the phenology of most of the dry forest species is little known, and this is a contribution to the understanding of this important ecosystem.

2.2.2.3. Sub-program for compensation for vegetation cover damage

Offsetting activities are mainly aimed at the no net loss of biodiversity and the recovery of ecosystem services provided by the different ecosystems found within the offset areas.

The environmental license, its subsequent modifications and permits with other authorities, established an obligation to compensate 17,491 ha. To comply with this obligation, the Project acquired areas along the Cauca River canyon and adjacent to the reservoir, which comply with the ecological equivalence of the ecosystems affected during the construction of the power plant.

As of December 2023, the areas acquired by the project were 17,655 ha, of which 4,041 ha correspond to tropical rainforest (bh-T), 13,610 ha to tropical dry forest (bs-T) and 4 ha to premontane rainforest, exceeding the requirements established in the different obligations.

In addition to the aforementioned areas, 6,466 ha located in the premontane rainforest life zone (bh-PM) were voluntarily acquired to contribute to the connectivity between the areas of importance for the Project, the mobilization of wildlife, the protection of water resources and the generation of ecosystem services provided by these forest covers.

During 2023, maintenance and monitoring activities were carried out on the trees planted during 2022 within the compensation areas located in the life zones of tropical rainforest -bh-T- and tropical dry forest -bs-T-. In addition, 5,000 trees of native species were replanted to replace all those that failed to adapt to the conditions of the planting site.

Maintenance and replanting activities in replenishment and compensation areas.

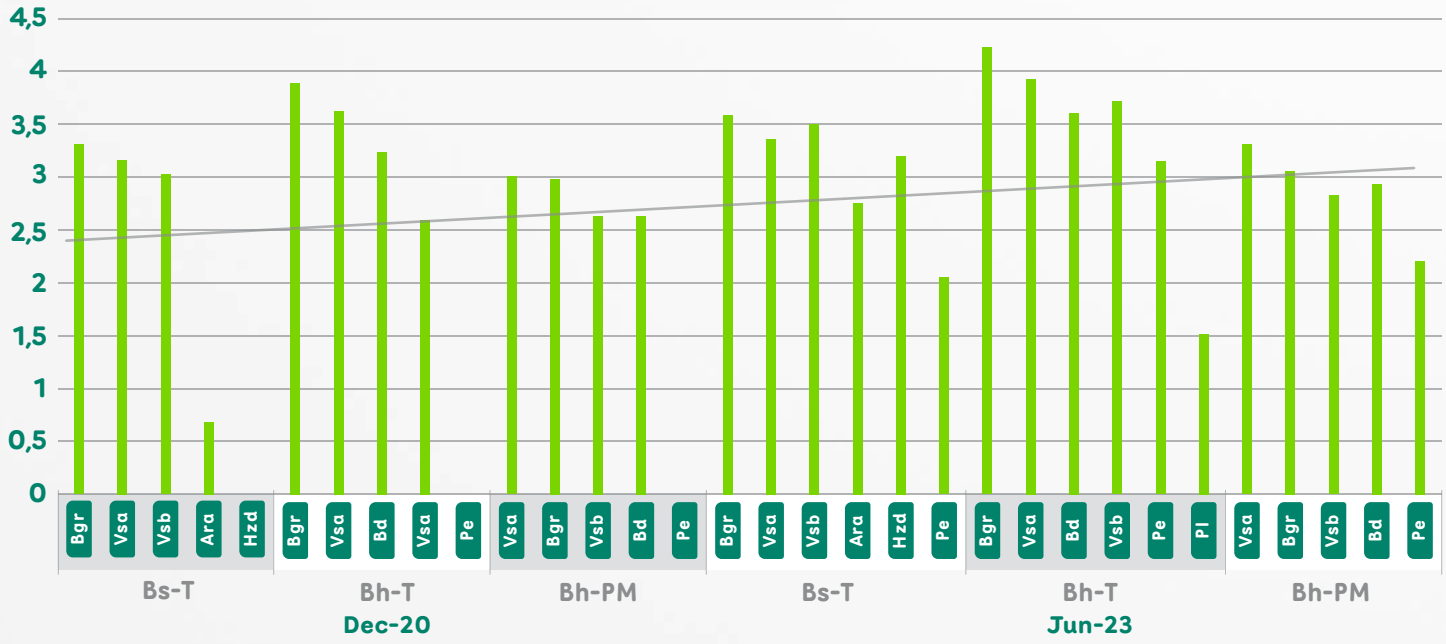
As part of the compensation actions and the follow-up of biodiversity indicators, in 2023 the monitoring activities of terrestrial fauna and permanent flora plots in the areas acquired for the compensation actions were completed.

Based on the results obtained, we evaluated the change in biodiversity indicators and how the compensation actions contributed to improving the conservation status of the ecosystems immersed in these areas.

- Flora biodiversity indica.

The values presented correspond to the calculation of the Shannon Index (H') per life zone and per cover from the data collected during the flora monitoring in 216 permanent plots distributed as follows:

- 124 monitoring plots located in the compensation areas.
- 43 parcels located in the buffer strip.
- 13 plots in areas for disposal of sterile materials.
- 18 plots located in areas where ecological restoration activities were implemented.
- 18 compensation plots for biodiversity loss.



The results show an increase in species richness and diversity for all coverages, compared to the previous monitoring conducted in 2020.

- Faunal biodiversity indicators.

To know the status of the avifauna, mammals, reptiles and amphibians in the project's compensation areas, 19 sites were monitored to look for traces of fauna, mist nets for birds and flying mammals, Sherman traps, camera traps and observation points were installed.

Monitoring was carried out twice during the year, once in the wet season and once in the dry season. For the bird group, the Shannon diversity index presented high values (> 4) indicating a high diversity for this group in the three life zones. It should be noted that in the bh-T, the Shannon index was higher than in the other life zones, this is an expected result, since it is considered that this biome concentrates a high diversity of fauna and flora.

The birds are diverse and most of them easy to detect, in addition to their wide adaptability to different environments, with both generalist species adaptable to the different alterations of the vegetation cover present, and sensitive species that only make use of the forest cover, the availability of resources at the time (fruits and insects) and the presence of migratory species could also influence the results.

Regarding the group of mammals, the values presented were > 2, possibly indicating a medium-low diversity of mammals for the 3 life zones. According to the results obtained, it can be highlighted that bh-T and bh-PM have a higher species richness and abundance in relation to bs-T, which agrees with the literature.

This result could be due to the dynamics of the life zones evaluated, since, in the first instance, there are differences in environmental terms given that, in the humid forest zones, rainfall is less seasonal and therefore presents greater humidity, promoting a more stable availability of resources, which in turn has an impact on the heterogeneity of the environment, providing different niches for more species in the same place. This situation is not repeated in bs-T because, with a less humid environment, the heterogeneity of the landscape is lower, limiting the resources in the landscape and the number of species present.

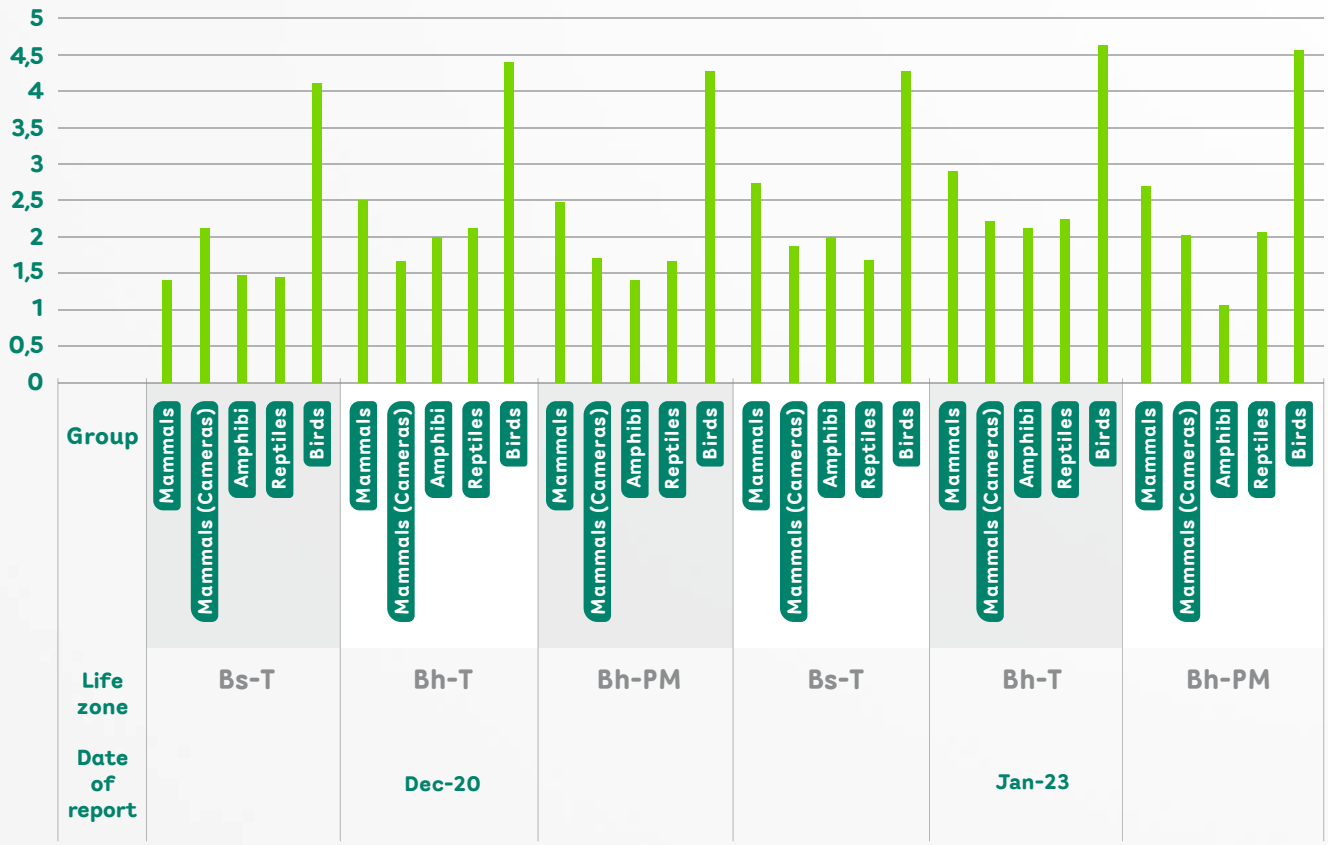
For amphibians, in bs-T there is a moderate diversity in the amphibian community present in this forest. On the other hand, bh-T shows a higher Shannon index, indicating a higher diversity compared to bs-T. This suggests that the bh-T harbors a higher species richness and a more equal

distribution of their relative abundances in the amphibian community. As for bh-PM, the lowest Shannon index is observed, suggesting a lower diversity compared to the other 2 life zones.

This result coincides with the distribution studied for amphibians in South America, where there is greater diversity within the bh-T because they incorporate ecosystems with high structural complexity and high species diversity that favor the presence of amphibians, in addition, it is a heterogeneous environment, much more conducive due to the relative humidity of the environment that favored the establishment of amphibian species.

On the other hand, the bs-T is an ecosystem with low amphibian diversity due to the extreme climatic conditions that favor a select group; in addition, greater anthropic intervention was observed in these coverages, destined for livestock activities, in addition to the absence of bodies of water that are limiting for the reproduction and existence of amphibians in the area. In contrast, the lower diversity of amphibians in the bh-PM could be due to a combination of factors such as colder temperatures, higher humidity, and climatic fluctuations, according to the altitude at which this life zone is located, favoring only some species of amphibians.

For the reptile group, in general, the bh-T represents an ecosystem that favors ecological aspects of different organisms, due to the vegetation, humidity and other important qualities that establish ideal niches for many species, so it is expected that this life zone is positioned as the one with the highest diversity of reptiles. In the case of bh-PM, the diversity of reptiles according to Shannon's index indicates this, given that this type of ecosystem usually has a relatively low diversity. The bs-T was the life zone with the lowest Shannon index and although it is known that these ecosystems have a high diversity of reptiles due to their ability to occupy different habitats and a wide distribution among cover types, for this monitoring, there is no homogeneous distribution of individuals among the species that inhabit the bs-T.



2.2.2.4. Orchid, bromeliad and tree fern rescue subprogram

In the year 2023, rescue, maintenance, **maintenance, monitoring, and follow-up activities ,were carried out on the individuals rescued** during the execution of the main works and maintenance activities on the Project's roads. The interventions were carried out in the forestry exploitation polygons authorized in the Project's environmental license, resulting in the rescue and relocation of 6 specimens of epiphytes belonging to the Bromeliaceae family, which were transferred to the epiphyte of the Guaico stream in the sector adjacent to the Humagá 1 and 2 deposit areas.

In addition to these activities, maintenance and monitoring of the 48,774 plants that had been relocated in the eight areas defined within the compensation zones was carried out, which allowed the monitoring of all the relocated plant material and each of the outgrowths that received these individuals.

Relocation of epiphytes.

Phenological monitoring of rescued and relocated individuals.

2.3. Advances in the socioeconomic environment

As can be seen in the following table, the Ituango Hydroelectric Project EMP for the socioeconomic environment consists of 5 programs, 11 projects and 7 subprojects:

Code	Program name	Date of last authorized version
PMA-SOC-01	Communication and community participation program	October 2011
PMS-SOC-01	Program for monitoring and follow-up of socioeconomic component	October 2011
PMA-SOC-01-01	Information and communication project	October 2011

Code	Program name	Date of last authorized version
PMA-SOC-01-02	Communication for participation project	October 2011
PMA-SOC-02	Program for the restitution of living conditions	October 2011
PMA-SOC-02-01	Project for the integral restitution of living conditions	October 2011
PMA-SOC-02-01-01	Project for the integral restitution of living conditions Population resettlement sub-project	October 2011
PMA-SOC-02-01-02	Project for the integral restitution of living conditions Subproject for the recomposition of social and cultural networks	October 2011
PMA-SOC-02-01-03	Project for the integral restitution of living conditions Economic activity restitution and compensation subproject	Octubre de 2011
PMA-SOC-02-01-04	Project for the integral restitution of living conditions Housing replacement subproject	October 2011
PMA-SOC-02-02	Project for the restitution of affected basic infrastructure	October 2011
PMA-SOC-03	Project - Region integration program	October 2011
PMA-SOC-03-01	Employment generation project	October 2011
PMA-SOC-03-02	Institutional and community strengthening project	October 2011
PMA-SOC-03-03	Project for the articulation of land use planning schemes (EOT) and municipal development plans	October 2011
PMA-SOC-03-04	Migratory pressure impact monitoring and management project	October 2011
PMA-SOC-03-05	Regional development connection project	October 2011
PMA-SOC-03-05-01	Regional development connection project Educational development component subproject	October 2011
PMA-SOC-03-05-02	Regional development connection project Productive development component subproject	October 2011
PMA-SOC-03-05-03	Regional development connection project Subproject component development with a gender perspective	October 2011

Code	Program name	Date of last authorized version
PMA-SOC-03-06	Environmental education project	October 2011
PMA-SOC-04	Monitoring program for the area of influence of the Project	October 2011
PMA-SOC-04-01	Socio-political environment observatory project	October 2011
PMA-SOC-05	Preventive archeology progr	June 2019

The **main advances in the implementation of the PMA for the social environment** in 2023 were:

2.3.1. Communication and community participation program

To have continuity and strengthen the building of trusting relationships and mutual understanding between the stakeholders in the area of influence of the Hidroituango power plant and the Company, communication strategies were developed, based on the generation and delivery of accurate and timely information, as well as the promotion of spaces for dialogue and the strengthening of communication and leadership skills.

This program consists of two projects: communication for participation and information and communication:

2.3.1.1. Communication for participation project

Dialogue workshops of the Attorney General's Office

During 2023, 10 social dialogue workshops were held as a participatory mechanism to address the concerns and requests of the communities in

relation to the efforts and pending actions of the entities involved in the territory. They were held in the municipalities of Valdivia (1), Ituango (8) and Toledo (1).

Veredal discussions

The conversations are an opportunity for the Project to listen and build topics of interest with the communities. During the year 2023 a total of 114 conversations were held in the villages in the area of influence.

Municipal and institutional discussions

Twenty-one discussions were held with stakeholders in the urban areas of the municipalities in the area of influence in order to inform them of the progress of the plant's construction and the activities of the EMP.

Attention to PQRS (petitions, complaints, claims and requests from the community in the project area)

The community service offices provided solutions to the community's concerns and registered in the complaints and claims mechanism those that required a substantive response. During 2023, 367 PQRS were registered, managed and attended to.

Workshop with the Attorney General's Office.

Dialogue with the Attorney General's Office in Briceño.

Informative meetings with the community.

2.3.1.2. Information and communication project

Radio strategy: radio for the people

A total of 59 information dissemination activities were carried out through television and radio, distributed in 34 radio programs, 24 audiovisual products and 2 of the Project's own radio programs.

Printed media with periodical circulation:

The 93rd, 94th, 95th and 96th editions of the newspaper "La Voz de Ituango" were distributed through WhatsApp groups with authorities and community leaders, e-mail, educational institutions, women's associations, productive associations, service providers, media, armed forces, environmental committees, youth groups and indigenous community organizations. Here you can consult the editions delivered https://www.epm.com.co/site/publicaciones .

Press releases and newsletters

Press releases were issued to the local community on specific topics of interest to them, such as: construction of final civil works; contracting process for units 5-8; second balance sheet of units 5-8; and the construction of final civil works; hiring process of units 5-8; second balance of the

workshop between the Mayor's Office of Medellín, the Ríos Vivos Movement and EPM; administrative inspection visit by the Superintendence of Industry and Commerce; school kits delivered to more than 17 thousand children in municipalities in the area of interest; EPM and the Government of Antioquia coordinate actions to strengthen the Community Action Organizations of the municipalities in the area of interest of the Hidroituango power plant; for the construction of the Auxiliary Diversion System in Hidroituango, among others.

In addition, 21 bulletins were distributed by e-mail to personnel working at the main worksites of the plant, to disseminate information of interest to them.

2.3.2. Restitution of living conditions program

This program implies the restitution of the living conditions of those who were affected in the components of: habitat, housing, social networks, economic base and community infrastructure by the construction of the works necessary for the Project.

For 2023, the universe of population groups was updated according to the identification of the impacts generated, including both those evaluated since the previous studies (2006), as well as those identified later. Of these population groups, 259 families had their living conditions restored with periodic accompaniment for five years, 299 families were followed up and monitored annually and 682 families were compensated and at the time of the agreement were settled, i.e., this last population group had no follow-up or monitoring.

Also, 100% of habitat restitution was achieved, as well as the reestablishment of economic activity and social and cultural networks of the families impacted by the Project.

Follow-up visits for the restitution of living conditions - family of Mr. Luis Alfonso Giraldo.

Accompaniment from the social and economic component - family of Mr. Jose Uriel Bedoya.

2.3.3. Project - Region integration program

The **advances in this program** were:

Employment generation project:

During 2023, the Project's employment policy continued to be aligned with national policy through Comfenalco's public employment system platform. A total of 3,360 jobs were generated, 42% of which went to people from the municipalities in the area of influence of the Hidroituango power plant.

Institutional and community strengthening project:

The Technical Committee for Community Strengthening and Territorial Development was launched, which seeks the articulation of the Government of Antioquia and EPM to strengthen the community action boards of the municipalities of interest of the Ituango Hydroelectric Project.

We also continued to strengthen and support the 23 community action boards with the social contracting strategy. Training was provided on technical, environmental, occupational health and safety, labor, administrative and accounting issues.

A training process in socioemotional skills (assertive communication, decision making, teamwork, active listening, emotion management) was carried out with representatives of local authorities, communities, and the company separately with each of the groups, as part of the preparation for the dialogue sessions, recognizing the importance of these skills for an effective dialogue aimed at reaching agreement and carrying out cooperative actions.

Andap Agreement

An agreement was signed with Andap (National Learning Academy) with the purpose of "Joining financial, technical, operational, logistical and administrative efforts to strengthen productive associative and entrepreneurial units in compliance with the component Project for connecting to regional development of the PMA and the Program for strengthening the social fabric within the framework of the Specific Action Plan PAE of the Ituango Hydroelectric Project". The scope of this agreement was to strengthen 53 solidarity organizations located in the municipalities of Valdivia, Tarazá, Cáceres, Caucasia and Nechí, identify and strengthen 36 productive associations, with agricultural and/or non-agricultural business vocation, in the municipalities of Ituango, Briceño, Santa Fe de Antioquia, Buriticá, Peque, Liborina, Sabanalarga, Toledo, Olaya, San Andrés de Cuerquia, Valdivia and Yarumal and design and implement a work plan, according to the needs and characteristics of the 36 solidarity organizations that meet the criteria of being productive associations, with agricultural and/or non-agricultural business vocation.

Infrastructure projects delivered

During 2023, the following educational infrastructures were built, improved, and maintained to the satisfaction of the community:

- Improvement of Mogotes Educational Institution.
- CER Buenavista Maintenance.

- CER Philadelphia Maintenance.
- CER El Aro Maintenance.
- CER Sevilla Maintenance.
- CER Organí bajo Maintenance.
- CER Agüitas Palmichal Maintenance.
- CER Santa Gertrudis Improvement.
- Improvement, adaptation and construction of physical infrastructure in the municipality of Peque.

Likewise, infrastructure was built to manage the Ituango Project reservoir, the intake on the Bolivia stream and the adduction to the sites of interest and the Simón Bolívar Bridge.

CER Agüitas Palmichal Maintenance.

CER El Aro Maintenance.

CER Organí bajo Maintenance.

Construction of the Simón Bolívar Bridge.

Articulation of the Ituango Hydroelectric Project to the EOT *(Land Management Schemes)* and the PDM *(Municipal Development Plans)* Project: during 2023, the adoption of the POT (Land Management Plans) was achieved in the municipalities of Toledo, Buriticá, Peque, Olaya and Briceño, and the updating of the AVR (Threat, Risk and Vulnerability) studies in Liborina and Santa Fe de Antioquia, which had already been adopted, was articulated. In addition, progress was made in the construction and development of these management instruments in Ituango, Valdivia, Sabanalarga and San Andrés de Cuerquia. In conclusion, the IHP provided support for the updating of the POTs throughout this region of Bajo Cauca.

The municipal hazard, vulnerability and risk study was also updated, in compliance with the provisions of Decree 1807 of 2014. This update included the analysis of fire risk in vegetation cover, as part of the land-use planning processes. During 2023, 9 hazard and risk studies were completed, as well as the corresponding construction and follow-up one for the municipality of Ituango and Valdivia, with the technical team of the National University.

In addition, progress was made in strengthening the development of tourism through the recognition of more than 187 points of interest, which enhanced territorial opportunities and promoted the recognition of the strengths of the municipalities in the area of interest.

Monitoring and management of impacts due to migratory pressure: the measures to prevent, control or mitigate the identified impacts are agreed upon in a participatory manner at technical workshops with municipal coordination bodies such as the Compos (Municipal Social Policy Councils). In the municipalities where this Council does not exist, the installation of a Local Management Committee is coordinated with the municipal administration, and the following activities were carried out:

- Primary Health Care: 3 cooperation agreements were signed with the municipalities and hospitals of Valdivia, Toledo and Briceño, for which the following are the most important. The objective was to join efforts to strengthen and expand the application of the PHC (Primary Health Care) strategy and adolescent and youth friendly services, according to the problems identified by adolescents and young people.
- Promotion and strengthening of Women's Social Organization: during the first half of 2023, as part of the subproject of connection with productive development, six training plan workshops were held to strengthen productive organizations, with the participation of women's associations.

Environmental education project: the environment for life program was implemented in the municipalities in the area of influence. The environmental week and environmental awareness workshops were held. The Cuidamundos Strategy was developed to build and consolidate relationships of trust with children and young people in the municipalities of the area of influence of the IHP, which allow EPM to be recognized as an ally of the territory that protects life, and contributes to the development and care of the communities.

2.3.4. Sociopolitical Monitoring program of the area of influence

An analysis of the environment and socio-political risks in the municipalities of interest to IHP was carried out, identifying the most relevant signs that would allow the prioritization of actions to address them, such as the articulation and due diligence with guarantor entities and those of interest in human rights, in addition to strengthening the relationship and continuous communication with stakeholders, through instruments such as the mechanism of attention to PQRS and professionals in the field, in order to provide relevant, current, clear and timely information and also receive doubts and concerns.

The most relevant socio-political information for each month of the year was reviewed and systematized, identifying 404 contextual events in three of the four variables of analysis, i.e.: a) strategic litigation, b) security and c) collective social action. As a result of this review, 12 monthly reports were prepared for the period, describing the relevant events, the actors involved, the categories and levels at which they occurred, and some recommendations for risk management. The information was compiled from secondary sources and in the field, with participation in some intervention spaces that the IHP has in the municipalities of the area of influence with communities and institutions in the area, such as socializations, discussions, workshops, institutional meetings, among others.

2.3.5. Preventive archeology program

During 2023 the actions were:

Component	Advances
La Angelina Bridge, Macrofite Deposit and El Aro Deposit	The Icanh (Colombian Institute of Anthropology and History) approved the registration of the preventive archaeology program for the Ituango Hydroelectric Project, in the specific polygons La Angelina Bridge, El Aro and Macrofite Deposits, through Resolutions 630 of April 19 and 1305 of August 16.
Tabacal road	During 2023, the preventive archeology program was completed on this work front.

2.3.6. Indigenous communities

Regarding the **implementation of the projects agreed with the Nutabe de Orobajo indigenous community,** since mid-2019, 26 protocolized projects have been implemented, resulting in 137 products framed in different components, in accordance with the agreed deadlines.

With an investment of more than COP 7.6 billion, and with an overall compliance of 47%, as of December 2023:

Seven agreements have been 100% fulfilled.

- 13 are progressing according to schedul.
- 6 se encuentran en gestiones internas en torno al trámite administrativo para lograr el cumplimiento.

In 2023, projects were closed:

- 9 Ethnoscientific studies.
- 13 on strengthening disaster risk managements.
- 14 environmental training and capacity building and the project.
- 23 referred to the creation of recreational, leisure and sports spaces.

We also delivered the infrastructure for coffee processing and a total of 90,000 seedlings for coffee cultivation.

After the period of the Law of Guarantees, the execution of the projects continued, in constant dialogue with the community and the participation of the guarantor entities, as a sign of EPM's commitment to respect the communities and Human Rights.

Coffee mill delivery – August 2023.

Celebration of the Cañonero tournament - December 2023.

Training in risk management of the indigenous guard.

Germinators for coffee cultivation - May 2023.

2.4. Epidemiological surveillance system of public health in the IHP area of influence

The **epidemiological surveillance system** is a program aimed at the Project's workers and the population located in its area of influence for the development of prevention and timely intervention actions on The

main public health problems, to ensure the health of the population during the construction stage of the works and the beginning of the operation of the Hidroituango power plant.

To achieve the above, work was carried out on different fronts such as: strengthening municipal, community and working population epidemiological surveillance, identifying health and environmental risk factors, monitoring the presence of insects of public health importance, timely attention to situations that occur in an unusual way in relation to events of public health interest to mitigate the impact and timely control the risk factors that favor the occurrence of outbreaks or epidemics in the population near the project. Specifically, work was also done to strengthen public health management in relation to leishmaniasis.

By the year 2023, quarterly health workshops were held in 51 villages to strengthen community organization in public health surveillance matters, through the participatory work of the communities and the creation or strengthening of health commissions and/or networks of teachers from institutions in the area.

Community workshop on public health, educational park, Peque. 2023.

Topics of the workshops	School attendees	General community Attendees	Total	Number of locations
Comprehensive mental health care pathway	710	792	1502	50
Interaction between man and animal	656	782	1438	50
Risks and prevention of Dengue in the area	675	797	1472	51
Spaces for participation in health-Covecom	—	729	729	48

Similarly, with the Local Health Directorates, officials from municipal administrations and ESE Hospitals in 10 municipalities were trained and advised. The topics covered were related to: EISP analysis units, ophidian accidents and surveillance protocols for dengue, Sivigila scorecard, data quality, smallpox protocol, Sivigila health information system, active institutional search and active community search.

In relation to **public and environmental health at the worksite,** training was provided to contractors on: myiasis (54 attendees), cutaneous leishmaniasis (80 people), dengue (60 people) and healthy habits in work environments (57 people).

In addition, four workers' epidemiological surveillance committees were held, attended by representatives of the OSH, environmental and social areas of the different contractors of PHI. Epidemiological indicators were socialized with the information reported to the EVS (Epidemiological Surveillance System) on events of public health interest occurring in workers, where acute respiratory infection and acute diarrheal disease continue to be the most frequently reported events. On average, advisory visits were made to 50 companies located at the worksite.

Training for construction contractors on public health issues, Tacui camp auditorium, Hidroituango power plant.

We continued to monitor the presence of insects of public health importance that could affect the working population and the community near the plant, and to determine the risk factors that favor the reproduction of insects and the transmission of diseases.

During 2023, 10 municipalities were visited for a total of 49 monitoring points distributed along three municipal capitals (Liborina, Olaya, Sabanalarga), three townships (La Angelina, La Honda, and El Valle de Toledo), 16 villages and 15 points in the reservoir. A total of 5,968 insects were collected, mainly phlebotomine sandflies, 3,260 specimens, 1,520 mosquitoes and 1,188 flies. With the above information, the maps of species distribution and risk zones for VTE (vector-borne diseases) were updated.

Installation of CDC trap for vector capture, Toledo.

Finally, the **epidemiological surveillance program** strengthened epidemiological surveillance of leishmaniasis, from the clinical component, addressing issues of laboratory diagnosis and treatment (10 trainings for microbiologists with 25 participants). Work was carried out with public health and APS teams for training in primary prevention of vector-borne diseases and dissemination of the presumptive diagnosis tool for cutaneous leishmaniasis (20 workshops were carried out, with 230 participants) from the community, raising awareness on diagnosis, treatment, vector behavior, preventive measures of LC and in general on community epidemiological surveillance.

Other important achievements with the active community search in 2023 were the completion of 11 presumptive diagnoses and 12 follow-ups of the therapeutic response to leishmaniasis treatment.

These activities also include strategies and products for the promotion and prevention of cutaneous leishmaniasis: leishventura game, guide and compilation for the web, radio soap opera 3, educational spots (2 pieces), podcast (1 of 3 chapters), puppet show and loudspeaker advertising.

Leishmaniasis campaign, Valdivia.

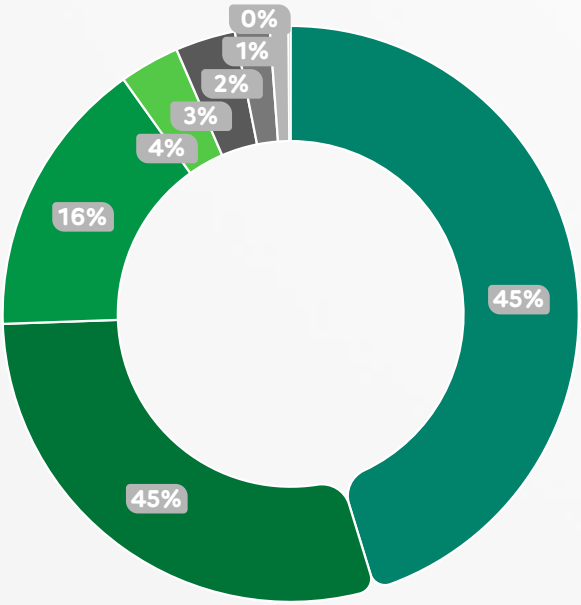
Leishmaniasis puppet show, Valdivia.

2.5. Disaster Risk Management Plan (including Contingency Plan)

During the year 2023, we continued **implementing the Pgrdeep** *(Disaster Risk Management Plan),* which is based on the processes of risk awareness, risk reduction and disaster management.

It is worth noting that this implementation was carried out with its own resources and through the execution of a contract with the Colombian Red Cross Antioquia Section - CRCSA with the following results: 942 activities with the participation of 13,485 attendees, with geographical scope in the area of influence of the Project in Antioquia and La Mojana (departments of Córdoba, Sucre and Bolívar).

In Antioquia, 771 activities were carried out with 8,881 attendees, as shown in the graph:



Activities implemented in 2023

Activity	Nº Activities
CTGRD Workshop	15
Community workshop	26
Community Simulation	26
CTGRD Simulation	1
Actions in support of a drill	349
Territorial harmonization	8
Community outreach	121
Actions community plans	225
Total	771

- Actions support simulation
- Actions community plans
- Community outreach
- Community workshop
- Community simulation
- CTGRD workshop
- Territorial harmonization
- CTGRD simulation

The activities carried out strengthened knowledge and disaster risk reduction at the community and institutional levels in areas such as: support in the preparation and implementation of 25 community plans for disaster risk management, which have enabled the creation of more prepared and resilient communities, and the creation of spaces for sharing experiences and knowledge with other stakeholders.

In the La Mojana region (departments of Córdoba, Sucre and Bolívar), activities were carried out to make communities more resilient and less vulnerable; 22 workshops were held with the Ctgrd (Territorial Councils for Disaster Risk Management), 75 community workshops and 74 community drills. A total of 4,604 participants took part in these activities.

The **cumulative figures of the implementation of the Pgrdeepp and the Emergency and Contingency Plan of the Ituango Hydroelectric Project** are as follows:

- 2,197 workshops.
- 345 disclosures.
- 1,078 simulations.
- 25 community disaster risk management plans formulated.
- 125 support sessions for community risk management plans.
- 107,755 attendees at activities.
- 347 emergency kits delivered to communities and Cmgrd.
- 91 alarm systems installed.
- 96 meeting points installed.
- 348 evacuation routes.

Similarly, health services continued to be provided for medicalized patient transport (TAM) and basic medical transfer (TAB), as well as the professional emergency brigade at PHI, guaranteeing 24/7 availability. In the year 2023, a total of 213 medical interventions were carried out, of which 68 required transfer to health care centers. In addition, 634 pre-hospital triages were performed and 136 complementary activities were supported with the participation of 597 people.

Regarding the **professional emergency brigade,** 2,523 activities were carried out in 2023, including: inspections of premises and safety elements, preventive dialogues with work fronts, road tours, accompaniment of high-risk activities, training, drills, among others. In addition, support was provided in 52 emergencies that occurred in some areas of the Project or in its vicinity.

With Corporación Antioquia Presente 66 training workshops on disaster risk management and management of the geographic viewer of the Contingency Plan were held with community spokespersons and evacuation leaders from Valdivia, Tarazá, Cáceres, Caucasia and Nechí; 1,533 people participated in these activities.

Communication of variables to stakeholders and community

As part of the communication strategy for IHP disaster risk management, the **CMT (Technical Monitoring Center)** informed the communities and stakeholders daily, every 12 hours, of the flow indicators of the 6 stations along the Cauca River (upstream and downstream), in the same sense, the state of opening or closing of the channels that make up the spillway and the travel time of water between one station and the other were reported.

See | Figure 8

Figure 8
Flow Indicators to IHP communities and stakeholders

Disaster management

To strengthen the **disaster management process,** the agreements with the volunteer fire departments of Ituango, Briceño, Valdivia, San Andrés de Cuerquia, and Sabanalarga continued, with whom we have the capacity to respond to possible emergencies in the Project, with the availability of equipment and personnel 24 hours a day. These agreements allow for a timely response in case of IHP contingencies and have enabled the formulation of school risk management plans, training workshops, and forest fire response.

3. 1 % Investment

According to Colombian regulations, all projects that involve the use of water taken directly from natural sources and are subject to environmental licensing must allocate at least 1% of the total investment for the recovery, conservation, preservation and monitoring of the watershed that feeds the respective water source. It is for this reason that during 2023, IHP carried out important activities that respond to this guideline. The following is a summary of what has been done.

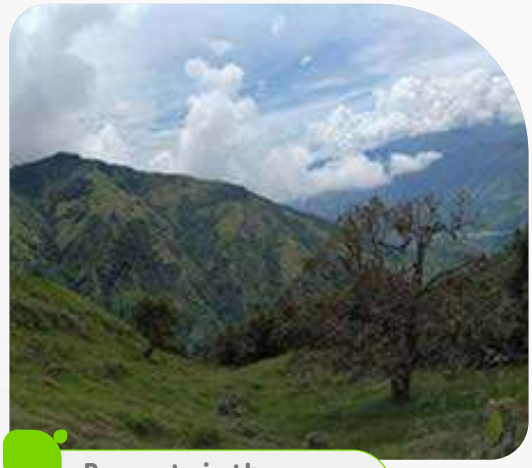
3.1. General procedures

Considering that for the execution of the projects approved in this line of investment, there are commitments not only by IHP as an environmental license obligation, but also that the municipalities where the investment will be made must provide the land where the works will be located and the required environmental permits, during the year 2023 the administrations were accompanied and support was provided to achieve these commitments.

3.2. Line for the purchase of land for the protection of micro-watersheds

In this line of investment, during 2023, the contracting process was carried out for the selection of the auction that conducted the visit for the appraisal of 7 properties that by that date had the environmental characterization report and compliance with the legal requirements. These properties are located in the municipalities of Buriticá and Olaya, in the western subregion, and Briceño and Ituango, in the northern subregion.

Properties in the municipality of Briceño.



Property in the municipality of Olaya.

Property in the municipality of Buriticá.

Property in the municipality of Ituango.

It is estimated that by the first quarter of 2024 the appraisal reports will be received, with the offer to the owners and, if accepted, the process will continue for the payment and signing of the properties in the name of the municipal administrations, entities that must ensure their conservation, monitoring, control, recovery and may not dispose of them or use them for any purpose other than that for which the purchase was madea.

3.3. Basic sanitation line

Three types of projects have been identified in this line of investment: domestic wastewater treatment plants in urban and rural areas and individual septic systems in rural areas, in 11 of the 12 municipalities in the area of influence.

In the first half of the year 2023, the municipalities of Ituango, San Andrés de Cuerquia, Sabanalarga, Briceño, Liborina, Peque and Buriticá were provided the adjusted designs of the WWTPs (Wastewater Treatment Plants), based on Resolution 330 of 2017, which refers to the new RAS (Water and Basic Sanitation Regulation). The information delivered is related to the plans and technical information and the coordinates of the location of the WWTPs, in order for the municipal administrations to initiate the property management, i.e. acquisition of the property where the work will be located, the constitution of easements and initiate the processing of the required environmental premises, according to each case.

Based on the above, the municipality of Ituango, in October 2023, gave EPM the documents that support compliance with the requirements and, in the first quarter of 2024, will begin the steps for the market study and proceed with the public bidding for the selection of the contractor that will execute the works..

In the case of the municipalities of San Andrés de Cuerquia, Sabanalarga, Liborina, Buriticá, Peque and Briceño, which had the technical information to acquire the land and process the environmental permits, they did not comply with the requirements and, therefore, EPM will resume in 2024 the management with each administration to provide the support required to enable these projects. The efforts for the construction of the septic systems defined for these localities will be resumed with the new administrations of the municipalities of Olaya and Valdivia.

Type of individual septic system installed.

4. SAP *(Specific Action Plano)*

As of December 2023, the **PAE** has a cumulative execution of environmental and social costs associated with the contingency and implementation of COP 311,851 million, of which COP 32,118 million correspond to the execution during 2023.

Specific Action Plan PAE

Decree of Public Calamity* included municipalities area of influence and 4 municipalities downstream of the dam.

**DEC2018070001272 May 14, 2018*

12 Municipalities in **Area of influence**

16 Municipalities **of interest**

4 Municiplities **downstream**

- Tarazá
- Caceres
- Caucasia
- Nechí

Overall progress of the PAE

90 %*

Cumulative execution 2018-2023

$311,851

million pesos

cutoff as of December 31, 2023

**** Extension for 2 more years before CDGRD in December 2023.***

- Attention ruling T-38, Cauca River subject to of Rights with scope to the Mojana region.
- Resolution 1056 of November 4, 2022 issued by the UNGRD - Strengthening Disaster Risk Management.
- Resolution 0185 of 2019 and 615 of 2023 ANLA - Environmental issues.

The following is a report on **the actions carried out by each line of the PAE:**

4.1. Social line

During 2023, through **the contract with Corporación Antioquia Presente,** 5 lines of psychosocial care were developed to restore the living conditions of the families affected by the contingency. These actions were rendered with the population settled in the area of interest of the IHP, specifically in the 5 municipalities of Bajo Cauca Antioquia: Valdivia, Tarazá, Cáceres, Caucasia and Nechí.

Regarding the **psychosocial care strategy and psycho-educational** meetings, during 2023, 329 psychosocial meetings were held in the municipalities of Valdivia, Tarazá, Cáceres, Caucasia and Nechí, with a total of 7,542 attendees, of which 5,450 were women and 2,092 were men. Regarding the implementation of structural and non-structural measures to mitigate the effects of the contingency, in October 2023, the dissipation of energy by generation units 3 and 4 began, thus making progress in risk mitigation.

Socialization of the Project with municipal mayors' offices - North and West Zones

Since the recent elections held in Colombia on October 29, 2023, and with the election of the new mayors and governors on January 1, 2024, the new officials in the different positions of the municipal administrations will also begin to take office, so it was necessary to socialize the agreement CT-2023-000205 signed between EPM - Andap to the new local governments to continue working in coordination with the institutionality in the integral strengthening of the organizations of the municipalities in the area of interest of the IHP.

In the **Environment for Life program,** implemented by EPM's Customer and Community Education Unit in the 16 municipalities of interest of the Hidroituango power plant, the Cuidamundos strategy developed with the educational community benefited 268 schools and colleges urban and

rural areas, impacted more than 85,000 students, teachers, parents and administrative personnel.

In addition, 88 Children's and Youth Seedbeds were developed in which, through experimentation, they recognized their territory, how to conserve it and use responsibly the natural resources that allow the enjoyment of electricity and natural gas in the region. Between 2019 and 2023, more than 600 students in grades 9, 10 and 11 were certified as Cuidamundos as part of their mandatory student social service.

Community strengthening roundtables: 320 rural organizations were involved, with whom a mechanism was set up to provide training and relationship building in the municipalities of Valdivia, Tarazá, Cáceres, Caucasia and Nechí. In 2023, the work with leaders was concentrated in the municipalities of Nechí, Caucasia, Cáceres and Tarazá, through the strengthening process, with meetings of 16 hours per group, benefiting 60 groups and more than 1,500 leaders in these municipalities. In addition, a social or environmental solution kit was delivered to each community organization to strengthen its community leadership process.

4.2. Housing line

In 2023, the activities indicated in this line were completed corresponding to: maintenance of physical infrastructure (housing, bridges, trunk road banking, hydraulic structures, retaining walls, spurs, water intakes, irrigation and ports), restitution of living conditions to families totally affected by the event of May 12, 2018 in Valdivia, negotiations with families partially affected by the event of May 12, 2018 and the activities concerning compliance with the inventory and repair of the properties located in the corregimiento of Puerto Valdivia, which had to be vacated as a result of the preventive evacuation order.

4.3. Accessibility and transportation line

During the 2023 fiscal year, **the Simón Bolívar Bridge** located in the township of Puerto Valdivia - municipality of Valdivia, which is 97 meters long and 3.07 meters wide and was part of the social infrastructure affected by the 2028 contingency in the PHI, came into operation.

Simón Bolívar Bridge
Puerto Valdivia, Ant.

4.4. Health line

With the rental of the temporary space established as a health center, we continued to **support the hospital of the municipality of Valdivia** in the provision of health services in the town of Puerto Valdivia. The expansion of the service is being maintained for a total of 7 rooms for general practitioners, emergencies, vaccination and growth/development, cytology, dentistry, pharmacy and archive. This space will be available until the new health center, which is expected to comply with environmental

procedures and permits that are being carried out before the environmental authorities ANLA and Corantioquia.

Support to the San Juan de Dios de Valdivia Hospital and the community of Puerto Valdivia continued with the TAB (Basic Assistance Transfer) ambulance service with 24-hour service; during 2023 and through an agreement with the Valdivia Fire Department, 850 services were provided, of which 767 required transfer and 83 did not.

Provision of TAB Puerto Valdivia

4.5. Public Utility line

As of December 31, 2023, 100% of the activities in this line had been completed: recovery of public service infrastructure, identification of users that are within the risk scenario and have red alert level as well as those users of the municipal capital of Valdivia that provided the self-hosting service to be evacuated people, delivery of a pumping system for catchment in the Man river to supply water to the drinking water treatment plant in the municipality of Caucasia, transfer of knowledge in aqueduct systems and supply solutions focused on the installation and commissioning of drinking water treatment plants *(PTAP)* in the affected and prioritized communities.

4.6. Education line

In the town of Puerto Valdivia in 2023, **234 students of the primary school of I.E. Marco A. Rojo benefited** from the school transportation service.

Provisional school transportation service Puerto Valdivia.

Work groups were held with the environmental authorities to generate synergies that would provide solutions to environmental permits, procedures and requirements that would make it possible to clean up the site defined for construction of the primary school **of I.E. Marco A. Rojo** in the township of Puerto Valdivia. This procedure was necessary to begin construction.

4.7. Environmental line

Within the framework of the environmental agreements with universities, NGOs (non-governmental organizations), environmental authorities and the fishing authority in the middle and lower Cauca river basin by **2023 the following was achieved:**

- Formulation and implementation of social, environmental and ecological actions or activities, information that is fundamental input for the delimitation of the water boundaries in Bajo Cauca by the environmental authorities. In addition, a pilot project was implemented in four marshes in Bajo Cauca, where participatory restoration will be carried out.
- Advancement of actions for the protection, conservation and restoration of swamp ecosystems with a socio-ecological approach that. The project has allowed the involvement of people from the communities through a process of education and training in ecological restoration, biodiversity conservation and associated ecosystem services.
- Development of activities aimed at capacity building and transfer of knowledge to local communities for social and community appropriation in different complexes of Bajo Cauca through courses related to conservation, feeding, fish reproduction and fishery resource management; more than 200 fishermen from Bajo Cauca were trained.
- Reproduction of five species of fish from the Cauca River fishery resource, as support for the development of technological reproduction packages of species of fishing interest for the basin and the country.
- Completion of the studies related to environmental contamination in humans, which show an effect on the population that is totally unrelated to PHI. Likewise, these studies corroborated the affectation of different fish species by heavy metals.

4.8. Information and communication line

The following activities were carried out in Bajo Cauca **during 2023:** 2,160 publications and requests for information in local, regional, national and international media on IHP.

- 63 press conferences.
- 195 communications to the public.
- 160 newsletters.
- 26 conversemos (spaces for dialogue, interaction and conversation).
- 26 programs of the Aló EPM radio strategy.
- Environmental week "Let's do Eco" (Hagamos Eco).
- Community Christmas: 6 events in Nechí, Caucasia, Cáceres, Tarazá, Puerto Valdivia and Valdivia.
- Customer Day in Bajo Cauca: 4 events were held in Cáceres, Caucasia, Tarazá and Valdivia.
- Trust-building events: Ecological Restoration Congress, Aeronautical Fair and Forestry Conference.

5. Social contracting

Social contracting is one of the voluntary commitments that EPM assumed since 1998 and that, since the beginning of the construction of the Ituango Hydroelectric Project, has been a strategy in line with the Sustainability Policy, given the potential it represents in terms of inclusion, generation of capacity and employment, income redistribution, rural development, possibility of dialogue, closeness, inter-institutional relationship between the different actors present in the Project's areas of influence. It has also enabled the articulation of actions that contribute to local, rural and regional sustainable development.

During 2023, support was provided to strengthen 24 community action boards and Asocomunales, with an investment of COP 17,973 million. Likewise, through a transaction agreement with the EPM Foundation, a training process was carried out at different levels for 200 boards in the municipalities of interest of the Project.

Back to content

Sustainability Report 2023

Glossary of acronyms

Grupo•epm

Glossary

Acronym	Acronym Description
ACI	Agency for Cooperation and Investment of Medellín and the Metropolitan Area.
Acolgén	Colombian Association of Electrical Energy Generators.
Acopi	Colombian Association of Micro, Small, and Mediumsized Enterprises.
ACPM	Diesel oil.
Adasa	Aguas de Antofagasta S.A.
EDA	Electricity Distribution Area. Group of networks operated by network operators according their geographical proximity.
AEI	Ashmore Energy International. US multinational company that generates thermoelectric power and distributes electricity.
AHPE	Attention to High-Priority Events.
AFD	AFD French Development Agency.
Agexport	Guatemala Exporters Association.
Aiarec	Ibero-American Association of Company-Customer Relations.
ADI	Area of Direct Influence.
Aloas	Latin American Association of Water and Sanitation Operators.
AMA	Antioquia-Medellín Alliance.
AMVA	Área Metropolitana del Valle de Aburrá.
NRW	Non-revenue water.
Andesco	National Association of Public Utilities and Communication Companies.
ANDI	National Business Association of Colombia.
ANH	National Hydrocarbons Agency.

Glossary

Acronym	Acronym Description
ANLA	National Environmental Licensing Authority.
SLA	Service-level agreement.
AOM	Administration, operation, and maintenance.
APC	Colombian Presidential Agency of International Cooperation.
AR4	Fourth Assessment Report of the Intergovernmental Panel on Climate Change.
PRM	Occupational risk management.
Ártica	Regional Alliance on Applied Information and Communication Technologies.
Asdefique	Association of Fique and Cabuya Artisans from the Department of Antioquia.
ASEI	Ecological and industrial services and consultancy.
ASIC	Commercial Exchange System Administrator.
Asoagricalpat	Association of Agriculturists from the Rural Settlement of California, Municipality of Los Patios.
Asocodis	Asociación Colombiana de Distribuidores de Energía Eléctrica.
Asocomunal	Association of Community Action Boards.
ATLA	Bill & Melinda Gates Foundation Access to Learning Award.
AWWA	American Water Works Association.
Bacrim	Emerging criminal groups.
BanCO2	Social and Environmental Benefits of the Cornare Bank.
bh-MB	Montane humid forest.
bh-PM	Premontane humid forest.
TMF	Tropical moist forest.
IDB	Inter-American Development Bank.
bmh-M	Montane very humid forest.

Glossary

Acronym	Acronym Description
bmh-MB	Low montane very humid forest.
bmh-PM	Premontane very humid forest.
BOOMT	Build, operate, own, maintain, and transfer.
BPM	Business process management.
BPO	Business process outsourcing.
TDF	Tropical dry forest.
MAC	Marketing Advisory Committee.
CAF	Development Bank of Latin America.
Camacol	Colombian Chamber of Construction.
CAPT	Transmission Planning Advisory Committee.
CAR	Regional Autonomous Corporation.
CCB	Climate, Community, and Biodiversity (international standard).
CCMA	Medellin-Antioquia Chamber of Commerce.
CDMA	Code-division multiple access (cellular and wireless communication technology).
CD	Certificate of deposit.
FFS	Fourth financial statement.
Ceipa	Center for Research and Administrative Planning.
CENS	Centrales Eléctricas del Norte de Santander S.A. E.S.P.
CET	Center for Technical Excellence.
CGM	Office of the Comptroller General of Medellín.
CGN	Colombian General Accounting Office.
CHEC	Central Hidroeléctrica de Caldas S.A. E.S.P.
Cidet	Center for Research and Technological Development of the Electricity Sector.

Glossary

Acronym	Acronym Description
Cideu	Ibero-American Center for Strategic Urban Development.
CIER	Regional Energy Integration Commission.
Ciien	CCenter for Energy Research and Innovation.
CMGRD	Municipal Council for Disaster Risk Management.
CMI	Balanced scorecard.
CND	National Dispatch Center.
CNO	National Operation Council of the Electricity Sector.
CNO-Gas	National Operation Council of Natural Gas.
CO_2	Carbon dioxide.
Cocier	Colombian Member Committee of the Regional Energy Integration Commission.
Cocme	Colombian Member Committee of the World Energy Council.
Colciencias	Administrative Department for Science, Technology, and Innovation.
Comfama	Family Compensation Fund of Antioquia.
Compes	Municipal Council of Economic and Social Politics.
CON	National Operation Council.
Conpes	Consejo Nacional de Política Económica y Social.
COP	Colombian peso.
Copaso	Joint Committee on Occupational Health.
Corantioquia	Regional Autonomous Corporation of Central Antioquia.
Cornare	Regional Autonomous Corporation of the Negro and Nare Rivers Basins.
Corpocaldas	Regional Autonomous Corporation of Caldas.
Corponor	Regional Autonomous Corporation of the North Eastern Border.

Glossary

Acronym	Acronym Description
Corpourabá	Corporation for the Sustainable Development of Urabá.
VOCs	Volatile organic compounds.
CIC	Community Involvement Committee.
CR	Critically endangered (very high risk of extinction).
CRA	Drinking Water and Basic Sanitation Regulatory Commission.
CREG	Energy and Gas Regulatory Commission.
Cretib	Corrosive, reactive, explosive, toxic, flammable,biological-infectious (classification code for hazardous waste).
CSR	Corporate Social Responsibility.
CTA	Centre for Science and Technology of Antioquia.
STI	Science, technology, and innovation.
UC	Unit cost for the provision of the energy service.
EDA	Environmental diagnosis of alternatives.
SEP	Strategic environmental planning.
DANE	National Administrative Department of Statistics.
BOD	Biochemical oxygen demand.
DBO5	Biochemical oxygen demand (usually measured five days after thereaction).
HR	Human rights.
DEA	Data envelopment analysis.
Delsur	Distribuidora de Electricidad del Sur S.A. de C.V. (El Salvador).
DEPE	From Business to Business Program.
ELSI	Equivalent length of service interruption.
DIAN	Directorate of National Taxes and Customs

Glossary

Acronym	Acronym Description
DMI	Integrated management district.
SWOT	Strengths, weaknesses, opportunities and threats
DWTP	Drinking water Treatment Plant
E.S.P.	Public utility company.
EACA	Companies active in compliance with anti-corruptionmeasures.
EADE	Empresa Antioqueña de Energía S.A. E.S.P.
Eafit	Eafit university.
AHC	Adapted health-care company.
Eatic	EPM's Technical Assistance and Quality Research Team.
WWPS	Wastewater pumping station.
EBITDA	Earnings before interest, taxes, depreciation, and amortization.
Ecsim	Center for Systemic Economy Studies.
Edatel	Empresa de Telecomunicaciones de Antioquia S.A. E.S.P.
EDEQ	Empresa de Energía del Quindío S.A E.S.P.
EDU	Empresa de Desarrollo Urbano
Eegsa	Empresa Eléctrica de Guatemala S.A.
EIA	Environmental impact assessment.
EKCO	Best environmental practices award.
Emgesa	Empresa Generadora y Comercializadora de Energía S.A. E.S.P.
Emvarias	Empresas Varias de Medellín S.A. E.S.P.
EN	Endangered (likely to become extinct).
ENA	National Study of Water.

Glossary

Acronym	Acronym Description
Enficc	Firm energy for the reliability charge.
ENSA	Elektra Noreste S.A. (Panama).
DOE	Designated Operational Entity.
EPA	Empresa de Servicios Públicos de Armenia.
EPM	Empresas Públicas de Medellín E.S.P.
Epmaps	Empresa Pública Metropolitana de Agua Potable y Saneamiento de Quito
Erica	Spain and its regions exchange knowledge with Antioquia.
ERP	Entreprise Resource Planning.
Escos	Energy service companies.
ESSA	Electrificadora de Santander S.A. E.S.P.
ESSAC	Energy commercialization services provided by ESSA.
ESSAD	Energy distribution services provided by ESSA.
ESSAG	Energy generation services provided by ESSA.
ETB	Empresa de Telecomunicaciones de Bogotá
ETP	Empresa Telefónica de Pereira
EU	Energy utilities.
FAER	Fund for the Electrification of Interconnected Rural Areas
Fafa	Up flow anaerobic filter.
Fazni	Fund for the Electrification of Non-interconnected Areas.
EF	Emission factor.
FECF	Development Fee's Special Fund (for infrastructure projects and for the transportation and distribution of natural gas).
Fedesarrollo	Foundation for Higher Education and Development.

Glossary

Acronym	Acronym Description
Femsa	Fomento Económico Mexicano S.A.
Fenalco	National Federation of Merchants.
FES	Equivalent frequency of power outages.
Finet	National Investment Fund in Electricity and Telephony.
FMAM	Global Environment Facility.
FOES	Social energy fund.
Fomin	Multilateral investment fund.
FSC	Forest Stewardship Council
FSRI	Solidarity and Income Redistribution Fund.
FSSRI	Solidarity Fund for Subsidies and Income Redistribution.
Fundemas	Business Foundation for Social Action.
g/m³	Grams per cubic meter.
Gal	Gallons.
GBTUD	Giga British Thermal Units por día
GEF	Global Environment Facility.
GEI	Greenhouse effect gases.
GEN	Strategic Business Group.
GHG Protocol	Corporate Accounting and Reporting Standard (Greenhouse Gases).
GI	Stakeholders.
Gibse	Integrated management of biodiversity and ecosystem services.
GIR	Gestión Integral de Riesgos
GJ	Gigajulio
GLP	Liquefied petroleum gas.

Glossary

Acronym	Acronym Description
CNG	Compressed natural gas.
GNCV	Compressed natural gas for vehicular use.
GNV	Vehicular natural gas.
GRI	Global Reporting Initiative.
GWh	Gigawatt hour.
Gwopa	Global Water Operators' Partnerships Alliance.
HET	Hidroecológica del Teribe S.A.
HI	Hidroeléctrica Ituango
HV	Habitable homes program.
i+d	Innovation and development.
R+D+I	Research, development, and innovation.
IAASB	International Auditing and Assurance Standard Board.
NRW	Non-revenue water.
ICAH	Colombian Institute of Anthropology and History.
Icfes	Colombian Institute for the Assessment of Education.
Icontec	Colombian Institute of Technical Standards and Certification.
Ictis	Colombian Institute for Subterranean Infrastructure Technologies.
QOLI	Quality of life index.
IDEA	Instituto para el Desarrollo de Antioquia
Ideam	Institute of Hydrology, Meteorology, and Environmental Studies.
HDI	Human development index.
Idsos	Application for capturing information on sustainability indicators in Grupo EPM.
IFAC	International Federation of Accountants.

Glossary

Acronym	Acronym Description
IFAT	Work accident frequency rate.
IFC	International Finance Corporation.
IGAE	Business environmental management index.
IHA	International Hydropower Association.
IIRC	International Integrated Reporting Council.
ILI	Rate of disabling injuries.
Incoder	Colombian Institute for Rural Development.
Invías	National Roads Institute.
IO	Odorization index (of natural gas).
IOExp	Levelling site index.
CPI	Consumer price index.
IPCC	Intergovernmental Panel on Climate Change.
IPLI	Delivery pressure index in individual lines.
Iporr	Loss index of the regulated network operator.
IPP	Producer Price index.
IPUF	Loss index per billed user.
IRAD	Grouped availability reference index.
IRCA	Risk rate due to water quality.
IRME	Institute for Mining and Energy Resources.
IRST	Technical service response rate.
ISA	Interconexión Eléctrica S.A.
ISAE	International Standard on Assurance Engagements.
Isagén	(BVC: Isagén)
ISAT	Work accident severity index.
Iscal	Perceived quality satisfaction index.

Glossary

Acronym	Acronym Description
ISO	International Organization for Standardization.
ISO 26000	International Standard on Social Responsibility by ISO.
Isvimed	Social Institute for Housing and Habitat of Medellín
ITM	Instituto Tecnológico Metropolitano
IVE	International vehicle emissions model.
IVR	Interactive voice response.
IWA	International Water Association.
JAC	Community action boar.
kg	Kilogram.
km	Kilometer.
km^2	Square kilometer.
kV	Kilovolt.
kWh	Kilowatt-hour.
l	Liter.
ML/FT	Money laundering and financing of terrorism.
LAC	Liquidity and accounts adminis.
Lawea	Wind Energy Association Latin America.
LED	Light-emitting diode.
LEED	Leadership in Energy and Environmental Design.
m^2	Square meters.
m^3	Cubic meters.
MABE	Strategic supply matrix.
MADS	Ministry of Environment and Sustainable Development.
MAST	Technological system modernization and updating.

Glossary

Acronym	Acronym Description
MAVDT	Ministry of Environment, Housing, and Territorial Development.
MDL	Clean development mechanism.
MEGA	Great and ambitious strategic goal.
MEM	Wholesale energy market.
Merco	Business Monitor of Corporate Reputation.
mg/L	Milligram per liter.
mm^3	Cubic millimeter.
Mm^3	Million cubic meters.
MME	Ministry of Mines and Energy.
ORM	Organized Regulated Market.
SRM	System Regulated Market.
MTT	Technical working group.
MVAP	Vital minimum of drinking water.
MW	Megawatt
Mypes	Micro and small enterprises.
N.A.	Not applicable.
N.D. A.	No data available.
Naturgás	Colombian Association of Natural Gas.
ND	Not defined.
NEGC	General construction standards and specifications.
Neón	Application that supports the contracting process in EPM.
NIIF	International Financial Reporting Standards.
NO_2	Nitrogen dioxide.
NO_x	Nitrogen oxide.

Glossary

Acronym	Acronym Description
N.R.	Not reported.
NT	Near threatened (may be considered threatened with extinction in the near future).
NTC	Colombian technical standard.
NTCGP 1000	Technical standard on quality in public administration.
NTSD	Technical standards of the distribution service.
OECD	Organisation for Economic Co-operation and Development.
OCG	Gas purchase options.
ODM	Millennium Development Goals.
ODS	Sustainable Development Goals.
OEF	Firm energy obligations.
OIM	International organization for migration.
OMS	World Health Organization.
ONG	Non-governmental organization.
OR	Network operator.
P&C	Suppliers and contractors.
PAC	Aluminum polychloride
PADE	Action plan during emergencies.
PAE	Strategic environmental plan.
PCB	Polychlorinated biphenyls.
PDD	Project development plan.
PDG	Panama Distribution Group S.A.
PFS	Social financing program.
PG	Global Compact (United Nations).

Glossary

Acronym	Acronym Description
PGCP	Public Accounting general plan.
PGIRS	Comprehensive management plan for solid waste.
pH	Potential of hydrogen.
PHVA	Plan, do, check, act.
PIB	Gross Domestic Product.
PIDE	Internal emergency plan.
PINE	National and strategic infrastructure projects.
PINE	Strategic interest national plan.
PL	Bill.
Plan URE	Plan for the Rational and Efficient Use of Energy.
PM10	Particulate matter smaller than 10 microns.
PMCA	Arboreal management plan.
UNDP	United Nations Development Programme
Pomca	Plan for Land Use and Management of the Chinchiná River Basin.
POP	Fishery management plan.
POS	Mandatory health insurance plan.
POT	Land use planning.
PPA	Power purchase agreement.
ppm	Parts per million.
PQR	Requests, complaints, and claims.
Praes	School environmental projects.
Prodes	Sectoral business development program.
Prone	Electrical network standardization program in below average neighborhood
PRR2	Loss reduction program.

Glossary

Acronym	Acronym Description
PSMV	Sanitation plan and discharge management.
PTAP	Drinking water treatment plant.
PTAR	Sewage treatment plant.
PTP	Productive transformation program.
Pueyra	Program for the efficient and rational use of water.
PUEAA	Program for efficient use and conservation of water.
Pymes	Small and medium enterprises.
RAEE	Electric and electronic equipment waste.
RAIS	Individual savings scheme with solidarity.
RCD	Construction and demolition waste.
RCE	Certified emission reduction.
RCP	Public accounting regime.
Recyproco	Program of engagement with EPM suppliers and contractors.
REDD+	Reducing emissions from deforestation and forest degradation
Remar	Project for reconfiguration, modernization, andautomation of regional substations.
Retie	Technical regulations for electrical installations.
RRHH	Human resources.
RSE	Corporate social responsibility.
RSP	La Pradera landfill.
RSU	Urban solid waste.
RUA	Single environmental registry.
UTR	Unified transport regulations.
Saidi	System Average Interruption Duration Index

Glossary

Acronym	Acronym Description
Saifi	System Average Interruption Frequency Ind
SCP	Colombian Society of Press and Media.
LDS	Local Distribution System.
SDMP	Sanitation and Discharge Management Plans.
SENA	National Training Service.
SGA	Environmental management system.
SGI	Comprehensive management system.
SICE	Information system for monitoring government procurement.
Sidap	System of protected areas of Antioquia.
EIS	Energy Information System.
SIEL	Colombian Electricity Information System.
Sigam	Environmental Management System of Medellín.
SIMAP	Municipal systems of protected areas.
SIN	National Interconnected System.
Sinemchec	CHEC's employees union.
Sinpro	Industrial union of professional workers of the residential, complementary, and related public utilities.
Sintrachec	SCHEC's workers union.
Sintraelecol	Colombia energy workers union.
Sintraemsdes	Workers and employees union of public utilities,autonomous corporations, decentralized and territorial institutions of Colombia.
SMMLV	Current monthly minimum wage.
SNT	National Transmission System.

Glossary

Acronym	Acronym Description
SOx	Sulphur dioxide.
SSPD	Superintendency of domestic utilities.
SSPP	Utilities.
SSPPD	Domestic utilities.
TSS	Total suspended solids.
STN	National Transmission System.
STR	Regional Transmission System.
SWTP	Sludge water treatment plant.
t	Ton.
t CO_2e	Metric tons of equivalent carbon dioxide.
T&D	Power transmission and distribution.
t/Mm^3	Tons per million cubic meters.
TCF	Totally chlorine free.
tCO_2eq	Metric tons of equivalent carbon dioxide.
TES	Treasury bills.
ICT	Information and communication technology.
Ticsa	Tecnología Intercontinental S.A.P.I. de C.V.
IET	International energy transactions.
NT	National transmitter.
Ton	Ton.
Trelec	Empresa Transportista Eléctrica Centroamericana,S. A.
TRM	Market representative rate.
UAESPNN	Special Administrative Unit of the National Natural Parks System of Colombia.
UdeA	Universidad de Antioquia

Glossary

Acronym	Acronym Description
UEE	University – Company - State.
UEN	Strategic business units.
UFW	Unaccounted-for water
Ugase	Environmental and social management unit for energy.
FIAU	Financial Information and Analysis Unit.
IUCN	International Union for Conservation of Nature.
UNAL	Universidad Nacional de Colombia
UNE	UNE EPM Telecomunicaciones S.A.
UNEP	United Nations Environment Programme.
UNFCCC	United Nations Framework Convention on Climate Change.
Unigeep	Grupo EPM trade union.
UN-Water	United Nations Office for Water.
UPB	Universidad Pontificia Bolivariana.
UPME	Mining and Energy Planning Unit.
UPS	Uninterruptible power supply.
RUE	Rational use of energy.
USAID	United States Agency for International Development.
USD	United States dollar.
USTDA	United States Trade and Development Agency.
TU	Transactions Unit (equivalent to XM in Colombia).
UVA	Articulated Life Unit.
UVR	Real Value Unit.
VOC	Volatile organic compounds.
VU	Vulnerable (likely to become endangered).

Glossary

Acronym	Acronym Description
WACC	Weighted average cost of capital.
WEC	World Energy Council.
WEEE	Waste electrical and electronic equipment
WHOLESALE	Wholesales.
WOP-LAC	Water operator´s partnership-Latin America andCaribbean
Wuf	World Urban Forum.
WWF	World Wildlife Fund.
WWTP	Wastewater treatment plant.
NIZ	Non-interconnected zones.

Sustainability Report

2023

www.sostenibilidadgrupoepm.com.co/en/

Grupo·epm